Poster Presentations

Medical Education

P0001
REDUCING ERRORS IN MANAGEMENT OF OBSTETRIC EMERGENCIES: MULTIDISCIPLINARY SIMULATION TRAINING. A CRITICAL REVIEW OF LITERATURE

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Introduction: Improving maternal and perinatal outcomes is a global priority, 1000 women die every day from complications of pregnancy worldwide. The importance of multidisciplinary team training in management of obstetric emergencies to improve non-technical skills has been repeatedly recognised. The impact of simulation training has been studied in aviation and other areas of medicine but needs to be rigorously evaluated in obstetrics to help plan effective training in future.

Objectives: To evaluate the current evidence about the impact of simulation team training in obstetrics to improve non-technical skills: teamwork, communication, leadership, situational awareness, and decision making to improve outcomes.

Method: The method was a literature review using systematic search strategies and strict inclusion criteria. The selected studies were appraised critically and the evidence was synthesized by mixed methods approach to guide the development of best practice in role of simulation training in management of obstetric emergencies.

Results: The database search identified six studies – two qualitative and four quantitative. The outcomes were defined and measured by different assessment tools by different studies. A meta-analysis was not possible due to heterogeneity of data. None of the studies measured all the outcome measures under review. Improvement in teamwork was shown by all the studies, enhanced communication by four studies, improved leadership by two studies and better situational awareness by one study.

Conclusions: This review reports limited evidence on positive impact of intervention on the outcomes under review. There is a need for standardisation of outcome measures nationally and internationally so that results of future studies can be compared and results can be pooled for future systematic reviews and meta-analysis.

P0002
OVARIAN TORSION COMPLICATED BY COAGULOPATHY IN AN OBESE ADOLESCENT

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Objectives: Necrotic tissue is an accepted cause of disseminated intravascular coagulation (DIC). In the setting of ovarian torsion, some venous outflow from the adnexa must occur in order for tissue factor to enter the peripheral circulation. Despite coagulopathy being a hypothesized complication of ovarian torsion there are scant documented cases, particularly in adults.

Method: We present a case of an 18-year old woman weighing 170 kg who developed a coagulopathy as a complication of ovarian torsion.

Results: The woman presented with 48 hours of abdominal pain which spontaneously resolved. At initial presentation, laboratory results demonstrated a hemoglobin of 101 and normal coagulation studies. Computed tomography scan revealed a 30 × 32 × 20 cm complex pelvic mass. On hospital day 4, the hemoglobin fell to 76, with prothrombin time 24, partial thromboplastin time 36, INR 2.3 and fibrinogen 5.8. Urgent operative intervention was arranged. A subumbilical midline laparotomy revealed a large benign ovarian cyst with 720 degrees of torsion. The cyst was drained of 11.3L of fluid prior to exteriorisation and salpingo-oophorectomy; histopathology showed cystadenoma and hemorrhagic infarction.

Conclusions: Diagnosis of large ovarian mass and torsion may be delayed in obese women due to lack of recognition of increasing abdominal girth and reduced sensitivity of ultrasound and Doppler assessment. The finding of a large but benign-appearing pelvic mass associated with progressive anemia should raise a suspicion for ovarian torsion with evolving DIC and precipitate urgent surgery with correction of coagulopathy. A heightened clinical suspicion for ovarian torsion and rapid transfer of these women to a tertiary hospital setting may reduce morbidity through minimizing delays in diagnosis and treatment.

P0003
IMPLEMENTATION OF AUDIO VISUAL MEDICAL EDUCATION IN LOW RESOURCE SET UP – PRESENT AND FUTURE

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Objectives: The Combination of sound and sight stimulates the mind and brain. The use of technology in the education has come a long way in a relatively short period of time. The number of tools and the ways in which to use them offer today’s administrators and educators unparalleled opportunities to reach students and the systems.

Method: The prospective study done in a new periphery semi urban medical college during the period June 2013 to April 2014, where no required set up. Recording system are personally arranged following the ethics in Gynae Department.

In the class Three way discussion with patient student and teacher were arranged About 30 percent for the student counseling and consultation with patient,20 percent was for conception clearance telling different stories related to it another 20 percent for return back from the student 10 percent for relaxing and wishing pictures, roll call and any problem about their health etc.

Results: Attitude for learning were, Very good 55%, Excellent 20%, Good 15%, Not satisfactory 10%

Interaction. Interpretation between patient student teachers were very interesting. Knowledge attitude perception and skill were optimum.
**Conclusions:** This way of teaching was less stressful and student were more attentive. A visual instruction movement arose, which encouraged the use of visual materials to make abstract ideas more concrete to students. Audio-visual. Video-conference and distributed education and Communication can bring the world of medicine immerse and diverse. Video recording in low resource setup could be a good archive for future use.

**P0004**

**NO-ONE PUTS OUR STUDENTS IN THE CORNER: DEVELOPING A STUDENT CENTERED TEACHING TOOL FOR INTRAPARTUM CARE**

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**Objectives:** In modern medical education medical students are increasingly left out of participating in intrapartum care, in contrast to most other patient care settings. Students have less time to develop competencies in obstetrics that will be, for many of them, their only exposure to intrapartum care in their careers. The objective of this project was to develop a tool to facilitate medical student engagement and learning from the multidisciplinary team in the intrapartum care setting.

**Method:** A Labour Ward handbook was developed with the aim of encouraging students to seek out knowledge from their clinical tutors on the Labour Ward and to interact with labouring women in a structured way, underpinned with an understanding of labour physiology. The handbook is revised with feedback from each rotation of medical students in the department and is available in electronic format across a range of platforms.

**Results:** The handbook was a popular innovation with the medical students. There was an improvement in the student perception of their educational experience in our department and an increase in the number of students likely to consider a career in obstetrics and gynaecology.

**Conclusions:** Changes in patient expectations, the reduction in birth rate and increase in high risk pregnancies are combining to reduce medical student exposure to the normal physiology of labour and delivery. Traditional models of delivering learning are no longer effective and a student centred paradigm that takes advantage of available technology for information delivery can be an effective and engaging solution.

**P0005**

**FACTORS INFLUENCING MEDICAL STUDENTS’ EVALUATION OF THE OBSTETRICS CLERKSHIP**

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**Objectives:** Many medical students express that their clinical exposition and integration to the medical team on the delivery ward varies depending on the hospitals where they are assigned, hence creating feelings of inequality and dissatisfaction regarding the attainment of clinical objectives. In previous studies, the presence of residents and the participation of students to the department’s activities were described as having a positive influence on students’ experience during their obstetrics clerkship. Male students tend to perceive their gender as a negative factor. The objective of this study was to determine the factors influencing medical student’s evaluation of their obstetrics clerkship.

**Method:** A questionnaire evaluating demographic characteristics, technical gestures performed and students’ perception of integration and exposition during the obstetrics clerkship was distributed to medical students in 5 teaching hospitals.

**Results:** Medical students were recruited from October 2012 to October 2013. A total of 176 students answered the questionnaire. The mean global evaluation of the rotation was 81.8% (SD 9.0%). There was no difference between genders (p=0.40). Positive perceptions of integration to the medical team and of clinical exposition were the two factors linked most significantly to a good evaluation of the clerkship (p<0.001). Only the number of deliveries performed was associated with a higher mean global evaluation of the clerkship (p=0.05).

**Conclusions:** Perceptions of integration and clinical exposition are the principal factors correlating with the global evaluation of the obstetrics clerkship. Contrary to previous studies, we did not find any difference in satisfaction between genders.

**P0006**

**APPLICATION OF THE PHEEM QUESTIONNAIRE TO THE OBSTETRICS CLERKSHIP IN A FRENCH CANADIAN UNIVERSITY**

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**Objectives:** Following informal discussion with medical students, specific concerns were identified regarding some variations in clinical exposition during the obstetrics clerkship between the different teaching hospitals. The objectives of this study were to compare the compulsory rotations in obstetrics performed in different teaching hospitals and to correlate the Postgraduate Hospital Educational Environment (PHEEM) score to the medical students’ global evaluation of the clerkship.

**Method:** The PHEEM is a validated questionnaire developed to evaluate and compare clerkships performed in different settings. It comprises 40 items and the final score ranges from -100 to 100. The French version of the PHEEM questionnaire was distributed to medical students at the end of their obstetrics rotation along with additional questions regarding demographic characteristics and global evaluation of the clerkship.

**Results:** A total of 176 medical students were recruited in 5 teaching hospitals from October 2012 to October 2013. The global PHEEM score was 119.7 (SD 13.7). The mean PHEEM score between the hospitals ranged from 113.3 to 129.2 (p=0.001). The PHEEM score was significantly linked with students’ evaluation of their rotation, F(1,174) = 86.08, p<0.001.

**Conclusions:** There were significant differences in the PHEEM score within teaching hospitals. This score correlated well with students’ evaluation of their clerkship. The use of the PHEEM questionnaire could be implemented in obstetrics to ensure standardization of the clerkship in the different settings.

**P0007**

**CONTRACEPTIVE KNOWLEDGE ASSESSMENT: VALIDITY AND RELIABILITY OF A NOVEL CONTRACEPTIVE RESEARCH TOOL**

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**Objectives:** In order to develop effective teaching methods for contraceptive education, researchers require a validated, reliable tool to measure subjects’ contraceptive knowledge. However, most widely used indices are outdated and no longer useful. The objective of this study was to create and assess the validity and reliability of a novel assessment tool for measuring contraceptive knowledge.

**Method:** The study tool was validated using both qualitative and quantitative methods. The tool was developed by the research team and then reviewed by a selected group of experts. Participants for testing the tool included English-speaking men and women ages 15–45 at a single institution. Structured interviews were conducted with a randomly selected group of patients for qualitative feedback regarding the readability and ease of administration and the study tool was adapted accordingly. Quantitative tests included (1) comparison...
with a gold standard; (2) test-retest reliability; (3) comparison between a group with low contraceptive knowledge and a group with high contraceptive knowledge.

**Results:** Qualitative feedback was obtained on the 25-question knowledge assessment tool from 6 experts and 7 patients. The study tool was administered to a total of 102 patients, with a mean score of 9.0. In comparison with the gold standard, the mean score was significantly higher (new tool 9.1 vs. gold standard 5.8, p < 0.001). Test-retest reliability was demonstrated via repeat testing within 2–4 weeks, demonstrating no difference between test and retest in the same subjects (p=0.667). When compared to medical students, patients' mean scores were significantly lower as expected (patients 9.1 vs. medical students 19.4, p < 0.005).

**Conclusions:** We have designed a valid and reliable study tool to measure a person's level of knowledge regarding contraception. This tool will allow the assessment of baseline knowledge, educational gaps, and post-educational knowledge achievements after an intervention.

**P0008**

**INVESTIGATION ABOUT THE INTEREST OF RESIDENTS AT THE MEDICAL SCHOOL OF THE UNIVERSITY OF SHERBROOKE, ALL SPECIALTIES INCLUDED, IN INTERNATIONAL HEALTH IN LOW- AND MIDDLE-INCOME COUNTRIES**

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**Objectives:** This investigation at the University of Sherbrooke medical school residents from all specialties was designed to determine their interest in the completion of an international health internship in low- and middle-income countries (LMICs) during their residency. More specifically, to identify resident motivations and barriers to international health.

**Method:** A written survey was given to all residents present during department meetings, involving both family medicine and specialties, and collected after they completed it. This survey comprised 20 questions regarding demographics, education, previous international experience, and interest, motivations and perceived barriers in the completion of an international health internship in LMICs during the residency.

**Results:** In all, 266 residents completed the survey for a response rate of 40.0%. From these, 38.0% had an interest to do an international health internship in LMICs during their residency. The major reasons for their interest were “to contribute to an important cause” and “to improve their openness and skills to work with people from different cultures”. Perceived barriers included “lack of free time”, “lack of available organized opportunities” and “feared wasting time that could be used for an elective or potential fellowship program”.

**Conclusions:** There is an interest of residents to do an international health internship in LMICs during their residency. This interest is different depending on the residency program; program directors, where there is a great interest, should be aware about this and develop opportunities by giving information and support.

**P0009**

**MINI-CEX FOR FORMATIVE ASSESSMENT OF POSTGRADUATE STUDENTS IN OBSTETRICS AND GYNECOLOGY**

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**Objectives:** 1. To introduce mini-CEX as a tool for formative assessment of postgraduate students in obstetrics and gynecology. 2. Perceptions of postgraduate students regarding being observed and assessed while they examine clinical cases. 3. Perceptions of faculty regarding feasibility, usefulness and acceptability of mini-CEX at GMC Bhopal.

**Method:** Postgraduate students of obstetrics were given a schedule plan of 1 mini-CEX per month, each mini-CEX to be taken by a different faculty and address a clinical problem not previously examined. The exact time, place and case was decided by student and faculty. The faculty observed while resident performed a focused history taking and physical examination. The resident then presented a diagnosis & treatment plan. Faculty member rated resident using mini-CEX evaluation form and provided educational feedback.

Perceptions of the faculty and students were taken regarding their experiences with mini-CEX, their desire to continue with same and areas of improvement.

**Results:** 80% of scheduled mini-CEX encounters took place; each resident had 5 encounters. Mean time taken for observation was 18.56 minutes, for feedback 7.25 minutes.

Residents and faculty perceived a need for such assessments, and reported improvement in history taking, examination, and counseling skills. Residents reported increased communication skills, thought organization and confidence levels. Residents first apprehensive, were later comfortable being observed during their clinical encounters and welcomed one to one interaction with faculty. Initial difficulties faculty faced allotting grades improved with provision of rating scale. Quality of feedback improved with a workshop on mini-CEX, discussions amongst faculty and structuring feedback.

**Conclusions:** Observation of performance in authentic clinical settings, case diversity, flexibility of time and multiple encounters with different assessors contributed to the utility of mini-CEX for formative assessment of clinical skills in our setup. The faculty & residents reiterated their willingness to continue with mini-CEX as one of the tools for formative assessments.

**P0010**

**IMPROVING THE QUALITY OF MATERNAL AND NEWBORN HEALTH CARE SERVICES THROUGH ACCELERATED IMPLEMENTATION OF THE ESSENTIAL INTERVENTIONS BY THE HEALTH CARE PROFESSIONALS ASSOCIATIONS IN UGANDA**

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**Objectives:** To assess whether joint action by the three Health Care Professionals Associations accelerates the implementation of the Essential Interventions (EIs) relating to Child Birth and Postnatal care increases the compliance of obstetricians, midwives and paediatricians. Specific objectives:

- Increase the compliance on the selected EIs.
- Increased capacity of the participating obstetricians, midwives and paediatricians to integrate the selected EIs into clinical practice.
- Assess the joint effort of three Health Care Professional Associations.
- Assess the effect of the intense dissemination of guidelines on the compliance of EIs.
- Enable health care professionals to promote EIs for health professionals to implement.

**Method:** A before and after study was used to assess the trend on the coverage of 8 EIs and the effect of the package of activities. The pack-
age, jointly developed by obstetricians, midwives and paediatricians was cascaded to providers in the two hospitals and included dissemination workshops, reminders, birth simulation sessions, team building, case reviews and academic visits.

Results: 4 EIs had high levels of coverage throughout the study (social support, prophylactic uterotonics, thermal care and Continuous Positive Airway Pressure – CPAP). Qualitative evidence revealed the positive effect of the joint work, EIs compliance and documentation. There were significant improvement in the relationships and involvement of the health providers as well as in the knowledge and confidence in relation to antibiotics for C-section, social support and CPAP.

Conclusions: The intervention was feasible to implement, along with a rigorous data collection system and monitoring and the joint work from the three Health Care Professionals Associations and the Uganda's national and hospital teams.

P0011
LEVERAGING TECHNOLOGY TO SCALE HEALTH AND HEALTHCARE WORKFORCE DEVELOPMENT PROGRAM: “CAREER 911: YOUR FUTURE JOB IN MEDICINE AND HEALTHCARE”

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Objectives: The current health and health care workforce does not reflect population demographics. Building a diverse healthcare workforce warrants efforts to boost access to health careers education for nontraditional students on scalable platforms. Massive open online courses (MOOCs) – free and available to anyone with internet connection globally – have the potential to impart interdisciplinary knowledge and skills toward students’ pursuits of health related careers. We present the development of Career 911: Your Future Job in Medicine and Healthcare, a MOOC aimed to help high school students, recent graduates, educators, career counselors and those considering career transitions explore healthcare career options.

Method: Developed by an interdisciplin ary team of faculty, students, healthcare professionals, instructional designers, and digital media specialists, the 6-week course was created for the Coursera platform. Topics covered in this course include strategies for entry into a health field, such as preparing a career portfolio, learning how to tell their personal story, resume writing, professional communications, networking and interview skills. Woven throughout are personal career journey stories and “day in the life” narratives of health professionals. Importantly, throughout the development process, we have built partnerships with representatives from local high schools, community colleges, and organizations to integrate curriculum into existing programs.

Results: Our first run of the course, between April 13 and May 23, 2015, had an enrollment of over 7,400 students, from over 150 different countries. During this first run, we gathered data with respect to student enrollment, demographics, usability, engagement, and retention. Enrollees in this course include high school students, adults, career counselors and educators. Qualitative interviews with educators and students are also being conducted to provide in-depth insights on application of the course on next career steps. We will present data from the course, evaluation and next steps.

Conclusions: There is a vast underrepresentation of minorities in health and healthcare careers. Despite existing health career pipeline programs globally, these programs still fall short of connecting a larger audience that hails from non-traditional backgrounds. These programs tend to be resource intense and difficult to scale. This MOOC offers interdisciplinary health career curricula to diverse populations, with potential to support diversification efforts in the healthcare workforce and impact health equity globally.

Sexual and Reproductive Rights

P0012
SEXUAL PROBLEMS CAUSED BY VAGINAL DELIVERY AND CESAREAN SECTION

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Objectives: This Research has been done to identify the differences in sexual satisfaction in two different ways of delivery: vaginal delivery and cesarean.

Method: This study is a cross-sectional study in which 300 women who had a history of delivery between 1 and 6 months of the study and had the inclusion criteria were selected. The questionnaire had two parts: part one demographic data and Part II questions about sex while doing research and before delivery. The validity of the questions was confirmed after being evaluated by 5 gynecologists and tested by 10 samples. To evaluate sexual problems, t test was used for quantitative variables and Fisher test and Chi square were used for qualitative variables.

Results: 155 mothers had vaginal delivery and 145 of them had cesarean section. Dyspareunia increased from 16.7 percent in the prenatal status to 43.3 percent, lack of sexual desire went from 2.3 percent to 35.7 and fail to orgasm after vaginal delivery rose from 2 percent to 21 percent. There was a significant relationship between sexual problems before and after vaginal delivery (p < 0.001) and sexual problems in vaginal delivery and cesarean section were significantly different (P < 0.039).

Conclusions: According to the study results the complications after vaginal delivery should be reduced with enhancing the quality of care during childbirth. As a result the desire of pregnant women to have cesarean section will increase.

P0014
IRANIAN MARRIED WOMEN’S PERCEPTION RELATED TO THE RIGHT TO FERTILITY REGULATION

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Objectives: “Population paradox” has led to more public debate focus on the right of choosing the number and spacing children. In some countries like Iran, “a demographic winter” resulted from both aging and the decline of family number has become the main concern of policy makers. This qualitative study explored Iranian married women’s perception related to the right to fertility regulation.

Method: Semi-structured, in-depth interviews were conducted with 25 married, sexually active, not sterilized women. Each interview was recorded and transcribed verbatim. Data were analyzed using the conventional content analysis with MAXqda software version 2007.

Results: The emergent categories from data were composed of interaction with social network, interaction with husband, and interpersonal interaction. Maintaining fitness in the right to fertility regulation was the central theme extracted from the women’s perception. Participants selected a decision which more consistent with situation.

Conclusions: Our findings showed that the fit choice does not always mean the best selection for women. Recognizing factors influencing the right to fertility regulation could help to implementation of the national family planning programs. Policy makers can decrease barri-
ers affected the intention to having children in some women who use contraceptive methods in spite of willing to pregnancy. It seems that the approach could provide both population growth and women’s sexual and reproductive rights.

**P0015**

**SERVICE DELIVERY CHARACTERISTICS ASSOCIATED WITH REPRODUCTIVE HEALTH SERVICES AMONG PERINATALLY-INFECTED HIV POSITIVE ADOLESCENTS IN ART CLINICS IN UGANDA**

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**Objectives:** HIV perinatally infected adolescents have the right to healthy sexual and reproductive lives. Integration of sexual and reproductive health (SRH) and HIV services is a policy priority, both globally and in Uganda. However, little is known about which SRH service characteristics, such as quality of care, strength of SRH service integration, and youth-friendliness in ART clinics in Uganda. This study explores the facility, provider-level characteristics and Perinatally-infected HIV positive adolescents’ experiences about the quality of SRH provided in the ART clinic.

**Method:** We undertook a mixed method study. We employed a survey with perinatally infected adolescent. 24 in depth interviews with adolescents, 12 in depth interviews with the service providers and we performed a record review about reproductive health services in the clinics. Survey data underwent descriptive analysis and content analysis was used for qualitative data. Thematic codes were generated from a subset of the transcripts, and these were modified, refined and organized during coding and analysis.

**Results:** None of the ART clinic offered comprehensive SRH services. All offered SRH education but referred the adolescents to other units for services like family planning. All the units had peer education programs but only three out of twelve had trained health workers in offering adolescent friendly services. All the adolescents wanted all the services to be offered in the same unit however although the providers were in favor of integration they had fear of the increased workload and not being trained.

**Conclusions:** None of the ART clinics offered comprehensive SRH services to HIV perinatally infected adolescents. There is need to integrate SRH services into ART clinics for adolescents but this has to be done in light of the challenges of integration of the services.

**P0016**

**MANAGEMENT OF OBSTETRIC FISTULA AT SCHIPHRA DISTRICT HOSPITAL IN BURKINA FASO**

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**Objectives:** To describe epidemiological, clinical features and management of obstetric fistula cases as well as the outcomes at Schiphra District Hospital in Ouagadougou, Burkina Faso.

**Method:** This was a cross sectional study about obstetric fistula (OF) patients and their management over a 24-month period, from August 22, 2012 to July 23, 2014. The study was conducted at the Department of Obstetrics and Gynecology of Schiphra District Hospital in Ouagadougou, Burkina Faso. Demographic characteristics, clinical features and outcomes of surgical treatment of obstetric fistula cases managed in that hospital were recorded.

**Results:** This was a cross sectional study about obstetric fistula (OF) patients and their management over a 24-month period, from August 22, 2012 to July 23, 2014. The study was conducted at the Department of Obstetrics and Gynecology of Schiphra District Hospital in Ouagadougou, Burkina Faso. Demographic characteristics, clinical features and outcomes of surgical treatment of obstetric fistula cases managed in that hospital were recorded.

**Conclusions:** Outcomes of management at Schiphra District Hospital are satisfactory. The use of the partograph along with the promotion of assisted delivery by a skilled health worker are the key interventions for preventing obstetric fistula.

**P0017**

**OBSTETRICIAN-GYNECOLOGISTS & THEIR PROFESSIONAL SOCIETIES AS CONTRIBUTORS TO ABORTION LAW REFORM: THE CASES OF ETHIOPIA, RWANDA, AND MOZAMBIQUE**

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**Objectives:** Unsafe abortion is one of the three leading causes of maternal mortality in Sub-Saharan Africa; however, few countries have reformed their laws to permit safer, legal abortion. This research seeks to describe the extent and nature of the contributions of ob-gyns and/or their professional societies to liberalization of abortion law in Ethiopia (2005), Rwanda (2012), and Mozambique (2014). Obstetrician-gynecologists globally have not tended to spearhead abortion law reform, despite having the stature and standing to do so. To the contrary, theory predicts and the empirical record largely reveals that societies shy from engagement in such often contentious policy-making.

**Method:** This cross-sectional research uses in-depth interviews with obstetrician-gynecologists in Ethiopia (10), Rwanda (4), and Mozambique (4), and with others familiar with the respective national reproductive health policy contexts and ob-gyn societies (the Ethiopian Society of Obstetricians & Gynecologists - ESOG, the Rwanda Society of Obstetricians & Gynecologists - RSOG, and the Associação Moçambicana de Obstetas e Ginecologistas - AMOG), as well as other primary data.

**Results:** Individual obstetrician-gynecologists’ reform participation was rooted in both their professional experience as well as personal and (in some cases) professional society commitments to reducing maternal mortality. They understood themselves as conducting evidence-based advocacy grounded in research and medical evidence: successfully framing reform as a critical response to high rates of maternal mortality, and educating the elite public and policymakers. In Ethiopia and Rwanda, obstetrician-gynecologists also contributed to developing regulations to ensure the fullest expansion of access possible under the reform. Of the professional societies, ESOG made the most substantial and sustained contributions to reform efforts.

**Conclusions:** Findings can inform efforts to facilitate obstetrician-gynecologist and medical society participation in policy reform elsewhere in Sub-Saharan Africa to improve women’s reproductive health.

**P0018**

**RECONSTRUCTIVE SURGERY AFTER FEMALE GENITAL MUTILATION**

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**Objectives:** Female Genital Mutilation/Cutting (FGM/C) affects 130 million women worldwide and is widely recognized as a violation of human rights. Due to immigration it is estimated that 38,000 women in Sweden are living with the consequences of FGM/C. Reconstructive surgery after FGM/C is now available in Sweden. However, little is known about women’s reasons for requesting clitoral reconstruction, or the immediate and long-term effects of the surgery. Our study sought to investigate 1) immediate and long term results and clinical outcomes of surgery, 2) motives for requesting surgery, 3) patients’ expectations of surgical outcome, and 4) experience undergoing surgery.
Method: Operative data and answers from validated questionnaires both pre- and postoperatively was gathered. Furthermore, qualitative interviews with women referred for clitoris reconstructive surgery is collected both pre and post operatively.

Results: This is an ongoing study and preliminary results will be presented. Preliminary results show that women request clitoris reconstructive surgery out of hope to perceive “normal” genitalia in contact with Swedish health care system. Furthermore, they hope to improve urinary function sexual desire, pleasure and orgasm, and reduce vulvar pain.

Conclusions: The planned research is important to optimize care for women who have undergone FGM/C, a vulnerable and often neglected group in European societies. It is also likely that increased accessibility, knowledge and acceptability around clitoris reconstruction will have preventive messages against the continuation of FGM/C, as individuals are important actives in societal change.

P0019 EVALUATION OF VALUES CLARIFICATION WORKSHOPS IN ADDRESSING BARRIERS TO ABORTION CARE PROVISION AMONG HEALTHCARE PROVIDERS IN PAKISTAN

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Objectives: In Pakistan, abortion is only legal to save the life of the woman. Due to the narrow interpretation of the law, stigma, and provider biases based on their personal values, an estimated 623,000 women were treated for complications resulting from induced abortions in 2012. Abortion Values Clarification and Attitude Transformation (VCAT) workshops are an intervention that aims to address stigma-related barriers to care and engage stakeholders to facilitate provision of and access to abortion care. This study aimed to evaluate Ipas Pakistan’s VCAT workshops’ success in improving providers’ knowledge, attitudes, and behaviors pertaining to abortion care.

Method: Ipas Pakistan conducted 39 VCAT workshops for 720 stakeholders from 2012–2014. This mixed methods study included quantitative data from matched pre- and post-VCAT workshop surveys from 84 Ipas-trained abortion care providers. The survey evaluated the participants’ knowledge and attitudes toward abortion and contraception. Differences in pre- and post-workshop answers were assessed using McNemar’s test, and statistical significance was assessed at an alpha level of 0.05 for all analyses. In addition, 23 in-depth interviews were conducted with Ipas-trained providers to understand their perspectives on behavior change resulting from participation in the VCAT workshops. The interview transcripts were read and analyzed thematically.

Results: Both knowledge and attitudes about abortion improved between the pre- and post-workshop surveys. Pre-workshop 33% of providers knew the legality of abortion in Pakistan, compared to 86% post-workshop (p < 0.001). Additionally, pre-workshop 79% of providers said they could explain their personal values concerning abortion compared to 99% post-workshop (p < 0.001). The qualitative data showed that after VCAT participation, providers began to regard access to abortion services as a woman’s right and to treat their clients with more empathy. Providers also reported an increased sense of professional responsibility to provide abortion care and, when needed, began providing referrals for safe abortion services.

Conclusions: This study finds that VCAT workshops have been successful in Pakistan in improving providers’ knowledge, attitudes and behaviors about abortion and abortion care. VCAT workshops are a promising approach for helping providers clarify their personal values about abortion to improve care for women, especially in a culturally conservative setting such as Pakistan.

Ethics and Law in Gynecological Practice

P0020 INVESTIGATING FEMALE GENITAL PIERCING WITHIN WEST MIDLANDS, UNITED KINGDOM TATTOO STUDIOS. COULD THIS BE FEMALE GENITAL MUTILATION?

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Objectives: Female Genital Mutilation (FGM) is defined as all procedures involving partial or total removal of the external female genitalia or injury to the female genital organs for non-medical reasons (WHO, UNICEF, UNFPA, 1997). According to WHO, Type 4 FGM includes pricking, piercing, incising, scraping and cauterisation. This pilot study explores the availability of piercing of the clitoris or prepuce within tattoo studios within the West Midlands UK and whether the providers of this service regard this as being FGM.

Method: This was a telephone survey. A Google search was conducted to identify a sample of 33 tattoo studios within the West Midlands. The questions asked were as follows: 1) Do you perform body piercings? 2) Do you perform clitoral or female hood piercing? 3) How much does it cost? 4) Do you believe this is FGM? A negative response to question 1 or 2 terminated the survey conversation.

Results: All 33 tattoo studios were telephoned but 7 (21.2%) did not respond. This survey therefore involved 26 tattoo studios. 16 out of 26 (61.5%) studios provided a piercing service and 11 of these 16 (68.8%) pierced the prepuce or clitoris. The price range was 20 to 50 GBP. 9 of the 11 (81.8%) tattoo studios providing female genital piercings were of the opinion that they were not performing FGM and the other 2 (18.2%) did not know what FGM was.

Conclusions: Female genital piercing is easily accessible within the West Midlands for a modest fee. Based on this survey most tattoo artists do not consider this as FGM. However under the most widely accepted definition of FGM, this procedure would fit into the classification of Type 4 FGM. Under current UK Law, FGM cannot be performed by choice irrespective of age and is punishable by up to 14 years in prison. Although the culture of female genital piercing within the West Midlands does not have the same health implications as FGM, clarification is imperative for the equitable application of the law.

P0021 CAUSES AND REPORTING RATE OF MEDICATION ERRORS FROM THE PERSPECTIVE OF MIDWIVES AND NURSES IN LABOUR, OBSTETRICS, AND GYNAECOLOGY WARDS IN MASHHAD PUBLIC HOSPITALS, IRAN, 2012

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Objectives: Medication errors are the most common errors in health care systems and have a significant impact on public health. Midwives and nurses as a health team members that dealing with drug use, can be exposed with this kind of errors. Medication errors in gynaecology and obstetrics ward could affect women’s health. In this study, we describe rate, causes and reporting of medication errors from the perspective of midwives and nurses in labour, obstetrics and gynaecology wards.

Method: This research was a descriptive-cross sectional study. A Census sampling methods of 140 midwives and nurses from four
Addressing Violence Against Women

**P0022**

**NATIONAL CLINICAL GUIDELINES (PROTOCOLS) FOR THE HEALTH SECTOR ON SEXUALLY TRANSMITTED INFECTIONS ASSOCIATED WITH VIOLENCE AGAINST WOMEN IN LATIN AMERICA AND CARIBBEAN PAHO MEMBER COUNTRIES**

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**Objectives:** Sexual violence is highly prevalent in Latin America and Caribbean countries (LAC) and is associated with negative sequelae including the risk of transmission of sexually transmitted infections (STI). Health care providers have been identified as the first and most trusted professional contact for survivors. (2013 Responding to IPV and Sexual Violence against Women: WHO Clinical and Policy Guidelines). Evidence-based national guidelines can play an important role in informing health-care providers on how to manage STIs associated with sexual violence against women. This presentation surveys the prevalence of national guidelines that outline this management in select LAC countries.

**Method:** Twenty-seven English, Spanish or Portuguese speaking countries were queried by email or telephone through PAHO focal points, internet searches, personal contacts or UN Women website.

**Results:** Out of 27 countries we obtained 15 national policies on violence against women, all of which addressed physical, emotional and sexual violence. We also obtained 12 clinical guidelines, all of which mentioned the importance of privacy, confidentiality and safety, while 6 addressed violence during pregnancy. Topics associated with IPV were addressed by differing numbers of guidelines: documentation of the risk of pregnancy (8), emergency contraception within 5 days of sexual violence (8), referral for abortion (where legal) for unwanted pregnancy (4). In-service health-care training was mentioned in 6 guidelines but did not mention frequency, duration or many essential topics.

**Conclusions:** It appears there are gaps in developing national policies and clinical guidelines on violence against women during and associated with pregnancy in LAC, including in the essential training of health-care providers. Notably only half of the obtained clinical guidelines included IPV-P. All PAHO member countries should develop and implement clinical guidelines (which include violence associated with pregnancy) reflecting the 2013 Responding to Intimate Partner Violence and Sexual Violence Against Women: WHO Clinical and Policy Guidelines.

**P0023**

**MEDICO LEGAL EVIDENCE AND LEGAL OUTCOME AMONG CASES OF SEXUAL ASSAULT (RAPE) IN ADDIS ABABA**

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**Objectives:** To describe the medico legal findings of sexual assault cases in Addis Ababa; to determine the association between medico legal evidences and legal outcome, to describe the processing and attribution of sexual assault cases, through the Ethiopian police and criminal justice system.

**Method:** This was a retrospective cross sectional descriptive study from January 1 2009 till 31 December 2009 conducted in the ten sub cities of Addis Ababa. Samples of 224 sexual assault cases were drawn from the 10 police sub cities. Data was collected from standardized police charts and court records. OR and 95% CI estimates were also used to compare important outcome predictors. Logistic regression done to determine the association between medico legal finding and other important predictors of out come with conviction.

**Results:** There was no evidence of trauma in nearly half (50.4%) of cases. The degree of injury was rated as mild, moderate and severe in 14.3%, 18.8% and 16.1% of cases respectively. Among police-reported cases seen over the 1-year study period charge filing and conviction rate were 76.8% and 58.9%, respectively. On bivariate analysis the following victim and assault characteristics (unknown assailant, weapon use, reporting of rape within 72 hours, positive evidence of trauma, severe injury extent score and visualization of sperm by direct microscopy) were associated with conviction at a P value of less than 0.05.

**Conclusions:** There was a remarkably higher charge filing and conviction rate. The frequency of sperm-semen positivity (9.9%) in this study represents a lower percentage of cases compared with other reports Sexual assaults by unknown assailant and visualization of sperm by direct microscopy were associated with conviction. Qualitative study to survey police, prosecutors, physicians and judges concerning the usefulness of medical-legal evidence is recommended to understand the roles and limitations of each agency handling the case. Community education program regarding sexual assault prevention and victimization is of paramount importance which might also result in earlier reporting.

**P0024**

**BENZODIAZEPINES ARE NOT DRUG OF CHOICE IN POSTTRAUMATIC STRESS DISORDER (PTSD) AFTER RAPE**

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**Objectives:** Post traumatic stress disorder (PTSD) is a chronic disabling anxiety disorder that follows after having experienced or witnessed a traumatic event. The use of benzodiazepines in treating anxiety symptoms in PTSD has been debated because of their lack of effect as well as causing several side effects. Studies on other anxiety disorders have indicated changed sensitivity to GABA-A receptor active substances. The aim of the present study was to investigate the GABA-receptor sensitivity in patients with PTSD.

**Method:** Injections of allopregnanolone, diazepam, and flumazenil were carried out, each on separate occasions, in 10 drug naive patients with PTSD compared to 10 healthy controls. Effects were measured in saccadic eye velocity (SEV) and in subjective ratings of sedation.

**Results:** The PTSD patients were less sensitive to allopregnanolone
compared with the healthy controls. This was seen as a difference in SEV between the groups (p=0.047). Further the patients were less sensitive to diazepam, with a significant less increase in sedation compared to the controls (p=0.027). After flumazenil injection, both patients and controls had significant agonistic effect on SEV, leading to decreased SEV after injection. The patients also responded with an increase in sedation after flumazenil injection, while this was not seen in the controls.

Conclusions: Patients with PTSD have a changed sensitivity to GABA-A receptor active substances. As a consequence of this, benzodiazepines and other GABA-A receptor active compounds such as sleeping pills will be less useful for this group of patients.

P0025
INITIATIVE TO PREVENT SEXUAL ASSAULTS TO MINORS IN JAPAN
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Objectives: SACHICO (Sexual Assault Crisis Healing Intervention Center Osaka) is the first one-stop center for sexually assaulted women in Japan. It was established at Hannan Chuo Hospital in April, 2010, aiming 1) to give 24 hours-total support including emotional/mental relief and urgent gynecological assistance, and 2) to support victims enabling their self-determination. The SACHICO team consists of professionals from several fields and trained volunteers. In this report, we summarized our 4 years activities and analyzed the data to enhance care of victims.

Method: SACHICO is connected with gynecologists, psychiatrists, nurses, counselors, police, lawyers, child consultation centers and other institutes via hot line from sexually assaulted victims. We reviewed the case sheets with respect to background profiles of victims and a type of assaults. During April, 2010 and March, 2014, a number of hot line uses were 17,173, and the clinic visits were 780 individuals with a total of 2,400 cumulative visits. 2/3 visits were on holiday and/or night time.

Results: Of the 780 first visits to SACHICO, a type of assaults included 466 rapes/indecent assaults, 172 sexual abuses/sexual violence, 71 domestic violence victims, and 71 other assaults. 501 (64%) were under the age of 20. Recent trend has indicated that a number of children who encounter sexual assaults through SNSS such as LINE are increasing. 45 were pregnant after rape, and 23 of them were under the age of 20.

Conclusions: Sexual assaults are serious violation to the reproductive health and rights of women. Close co-operation among SACHICO, family, school, child consultation centers, such sections of the local government as child rearing support and maternal and child health, and welfare institutes are essential for care of the sexually assaulted victims. Conceivable measures to prevent victimizing children from sexual assaults may include 1) establishing rape crisis one stop centers around the country, 2) improving sexual education in school, and 3) offering safe places for social activities of minors.

P0026
PATTERN OF SEXUAL ASSAULT SEEN IN SOKOTO, NORTHERN NIGERIA
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Objectives: To determine the pattern of sexual assault managed in Usmanu Danfodiyo University Teaching Hospital Sokoto Nigeria.

Method: It was a retrospective study that looked into cases of sexual assault admitted during the period 2010 to 2014. During the period of study, there were 5317 gynaecological admissions. Out of which 45 were cases of sexual assault, out of the 45 cases only 34 case files were available for data collection. Relevant information on the patient's bio data, type of assault, mode of presentation, law enforcement were extracted from the patients records and analysed.

Results: The prevalence of sexual assault was 0.84%. The age group ranged between 2 years and 37 years. Mean age was 12.6±8.3 years. Type of assault was mainly penetrative in 24 (70.6%) while fondling was noted in 10 (29.4%) of the victims. There was a single assailant involved in 31 (91.2%) of cases while 3 (8.7%) cases involved gang rape. The assailants were mostly unknown to the victims in 14 (41.2%). Acquaintance and family members accounted for 13 (38.2%) and 7 (20.6%) respectively. Mean interval between assault and presentation was 36.6 hours. Law enforcement was involved in 25 (73.5%) leading to arrest in 19 (55.7%) cases. The mortality was 1 (2.9%).

Conclusions: The prevalence of sexual assault in this study appears low probably due to the fact that majority of cases are not reported due to stigma. Sexual assault of young children is dominant in this study which is a cause for major concern. Care givers should be more vigilant. Cases should be encouraged to present early so a proper diagnosis can be made to help lawenforcement. stringent laws should be instituted and enforced in cases of assault.

P0027
REPRODUCTIVE HEALTH NEEDS OF SURVIVORS OF SEX TRAFFICKING, SEXUAL VIOLENCE AND FEMALE GENITAL CUTTING
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Objectives: Primary objective: to determine the prevalence of prior physical, sexual and emotional abuse among survivors of sex trafficking and sexual violence. Secondary objectives: to determine the prevalence of (1) unplanned pregnancy, (2) sexually transmitted infections (STI), (3) prior obstetrical complications, and (4) uptake of family planning among survivors of sex trafficking and sexual violence.

Method: This is a retrospective cohort study with chart review of electronic medical records from the EMPOWER clinic at Gouverneur Health. The EMPOWER clinic for Survivors of Sex Trafficking and Sexual Violence provides integrated psychiatric and gynecologic care to survivors of sex trafficking and sexual violence. Data was collected in a REDCap database and analyzed using Stata v13. Outcomes were evaluated using descriptive statistics.

Results: Of 51 women, 76.0% had been trafficked, and 91.9% of those were trafficked for sex work. Most of the women spoke Spanish (68.6%) and nearly half are from Mexico (47.1%). The prevalence of prior physical, sexual or emotional abuse was 38.8%, 32.7%, and 26.5%, respectively. On initial intake, a large majority desired a routine exam (82.3%) and/or reported specific symptoms (74.5%), while 9.8% with unplanned pregnancy at the time of intake. Of the women with prior pregnancies, 28.2% reported prior pregnancy complications and 27.5% of all patients reported a prior STI. Only 19.6% were using effective contraception.

Conclusions: Most of the women presenting to EMPOWER are from Mexico or other Latin American countries, but there is a wide geographical range represented in the cohort. Prior history of physical, sexual, or emotional abuse is common. There appears to be a high prevalence of unplanned pregnancy, as well as a high prevalence of reported prior pregnancy complications. While most requested a routine exam, the vast majority also had a specific symptom requiring evaluation. There is a high unmet need for contraception among this population, and although all undergo contraceptive counseling, uptake of effective contraception is still inadequate.
P0028
COMMUNITY HEALTH WORKER UNDERSTANDING OF AND ATTITUDES REGARDING INTIMATE PARTNER VIOLENCE IN THE DOMINICAN REPUBLIC

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Objectives: Intimate partner violence (IPV) is prevalent in Latin America and is a leading cause of death for women. A population survey of Latin American and Caribbean countries reveals that 17–53% of women in the region have experienced physical or sexual violence by an intimate partner, and many women do not seek help or report abuse. The objective of this study is to explore the understanding and attitudes surrounding intimate partner violence among community health workers (cooperadoras) in the Dominican Republic, and to quantify rates of IPV in their respective communities.

Method: Investigators conducted five focus groups of cooperadoras, with a total of 35 participants, representing various regions of the Dominican Republic. Nine open-ended questions were explored including knowledge of and attitudes toward IPV in the community, understanding of its causes and availability of resources for women. Then, validated surveys were distributed to a sample of 385 women in the community in order to better understand the prevalence of this issue. A two-sample Chi-square test was used to compare responses to survey questions by the number of sexual partners and whether the respondent lived in a rural or urban setting.

Results: Cooperadoras believed IPV is a social issue citing multiple causes including the women themselves and poor communication between couples. They stated that IPV is prevalent and that death was an outcome in many of their communities. They could not identify available resources or how to help affected women. 385 IPV surveys were collected. Urban participants were just as likely as rural participants to have suffered physical abuse, coercive control, and expressive forms of aggression. Rural women were more likely to experience psychological abuse (40% rural and 27% urban; p=0.01) and to experience sexual abuse (28% rural and 19% urban; p=0.03).

Conclusions: Community health workers in the Dominican Republic could be a potential resource for women affected by IPV, but currently do not view themselves as such because of limited knowledge and resources. This study establishes the high prevalence of IPV in Dominican communities serviced by cooperadoras. By recognizing the different types of IPV present in these communities, future interventions could target each type, including education for community health care workers to identify and advocate for women, appropriate referral of women to resources, and discussions with community members regarding management and prevention of intimate partner violence.

P0029
RAPE WITHIN MARRIAGE: HORRIBLE EXPERIENCE FOR MARRIED WOMEN

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Objectives: To identify the demographic characters and type of injury of married women, who are victims of sexual violence.

Method: It is a prospective observational study carried out in the obstetrics and Gynaecology department of a referral hospital situated outside the capital city. Data was collected purposively from the married sexual violence victims, admitted in inpatient department for management from January 2014 to December 2014.

Results: There were 27 women admitted with different types of injury in vulva, perineum and/or vagina. Mean age was 28 years, mean parity was 3, only 2% of them were illiterate and 2% was post graduate, 78% of them needed repair under anaesthesia, 62% needed blood transfusion, 18% needed more than 3 units of blood. Three Percent arrived at hospital in haemorrhagic shock. Avarage hospital stay waas 7 days. There was no death. All of these women returned to their husbands house.

Conclusions: In Bangladesh, status of women is low; so, the wife has no rights to say ‘No’, due to forceful coitus. These injuries happen and needed hospitalization and blood transmission. There must be some ways to protect these women from these horrible experiences.

Addressing Maternal Mortality
P0030
PERIPARTUM HYSTERECTOMY: IS PLACENTA ACCRETA RARE IN NON-PLACENTA PREVIA, NON-PREVIOUS CESAREAN SECTION CASES?

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Objectives: Peripartum hysterectomy may be required as a life-saving measure to control persistent postpartum haemorrhage. This study is aimed to review the incidence, management and outcome of women who underwent peripartum hysterectomy due to atonic PPH during the years 2012 and 2013.

Method: This is a retrospective audit of case notes of women who underwent peripartum hysterectomy due to atonic PPH in KK Women’s and Children’s Hospital, Singapore from 1st January 2012 to 31st December 2013.

Results: Six women were identified and the incidence of peripartum hysterectomy for atomic PPH was 3 per 10,000 deliveries. None of them had a history of previous Caesarean section and all of them had a normally located placenta. Three of the six women (50%) had focal placenta accreta on histopathology. Massive transfusion protocol was activated for four women (67%). The estimated blood loss ranged from 2 to 4 litres. None of the women received salvaged blood. One woman developed DIC. One had acute myocardial infarction on the operating table. One developed a Rexitus muscle haematoma postoperatively. There were no maternal deaths.

Conclusions: Placenta accreta can occur in non-placenta previa/non previous LSCS cases. The refractory atony in three such cases in this study was probably due to the focal placenta accreta. Intra-operative cell salvage is a useful adjunct in the management and can be included in the massive transfusion protocol.

P0031
CASE SERIES OF MORBIDLY ADHERENT PLACENTA (MAP) IN PATIENTS WITH PREVIOUS CESAREAN SECTION AND MATERNAL OUTCOME

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Objectives: To determine incidence, risk factors and maternal outcome in patients with MAP in association with previous cesarean section.

Method: This study was conducted at the obstetric unit III of Liaquat University hospital Hyderabad Sindh from 15 December 2010 to 14 December 2014. Departmental approval of study obtained. 82 patients with morbidly adherent placenta were identified by using ICD-9 codes for placenta accreta, previa and cesarean hysterectomy. Medical record was abstracted and entered in a predesigned proforma. Variable analyzed were incidence, risk factors, early and late maternal morbidity.

Results: During study period out of 6,120 patients with previous cesarean section 82 patients were identified as cases of morbidly adherent placenta giving incidence of 13.39 per thousand. Thirty (36.58%)
patients were with more than three cesarean sections. Seventy six (92.68%) patients had total abdominal hysterectomy while seventy (85.36%) patients had more than four units of packed RBC and fresh frozen plasma transfusion.

Conclusions: High index of suspicion of MAP with scheduled hysterectomy after investigation and optimizing patients along with multidisciplinary approach is associated with better out come.

P0032
UNSAFE ABORTION: CHANGING PATTERN OF AN AVOIDABLE TRAGEDY

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Objectives: The study was done to analyze cases of unsafe abortion and hence understand the pattern and compare the morbidity and mortality associated with unsafe abortion with previous trends.

Method: It was a prospective observational study were all the abortion related admissions from January 2012 to December 2013, for a period of 2 years in gynecology unit in B.P.Koirala Institute of Health Sciences were analyzed. Cases of unsafe abortion were identified and classified using the classification developed by The South African National Incomplete Abortion Study conducted in1994. Morbidity pattern was compared among the patients using the above classification system.

Results: In the study period there were 788 admissions with different types of miscarriage. Out of these 66 women were admitted with diagnosis of unsafe abortion making 8.3% of abortion related admission. Most common mode of unsafe abortion was by taking different types of oral drugs in various doses prescribed by medical shops (65.2%). Thirty eight (57.6%) women with unsafe abortion were of low grade. Most common clinical presentation was heavy vaginal bleeding (77%) with anemia. After evaluation commonest diagnosis made was incomplete abortion in 37 (56.1%) women. Majority of patient were reluctant to reveal the history at first place.

Conclusions: Incidence of maternal mortality relating to unsafe abortion has reduced significantly in recent years though the incidence of unsafe abortion is unchanged. The mode of unsafe abortion, presentation and morbidity of it has changed significantly in recent years.

P0033
WHY MOTHERS DIED: WHY WE ARE NOT IMPROVING

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Objectives: To determine prevalence and reasons of maternal deaths in patients received in tertiary level hospital.

Material and method: This study was conducted at the obstetric unit III of Liaquat University Hospital, Hyderabad Sindh, from 15 December 2009 to 14 December 2014. Departmental approval of study obtained. 185 patients died during study period. Medical record was abstracted and entered in a predesigned proforma. Variable analyzed were incidence and reasons of maternal deaths.

Results: During study period maternal deaths were 185 out of 19500 admission in obstetric department giving maternal mortality ratio of 948/100,000. 51% patients were multipara, 46% were less than 30 years of age and around 76% were unstable on arrival. Third delay was present in 40% of patients.

Conclusions: Maternal mortality ratio (MMR) of a country is indicative of its health and development status. Information of maternal mortality is important because we are standing in 2015, this is year which was set by united nation to reduce maternal mortality by three quarters from 2000 to 2015.

P0034
WHAT ARE THE FACTORS THAT INTERPLAY FROM NORMAL PREGNANCY TO NEAR MISS MATERNAL MORBIDITY IN A NIGERIAN TERTIARY HEALTH CARE FACILITY?

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Objectives: To examine the epidemiological characteristics and factors associated with maternal outcomes in a Nigerian tertiary health facility using a mixed method approach.

Method: A prospective case control study design involving 375 pregnant women who received maternal care from a tertiary health facility in Southwest Nigeria. Statistical analysis for the quantitative aspect was performed using STATA version 12. The differences in the proportion of women with normal pregnancy, acute maternal morbidities, and near misses with specific characteristics were compared using a chi-square test at a 5% level of statistical significance. After in-depth interviews reporting the experience of near-miss survivors, a generalized ordered logit model was used to generate the estimates of partial proportional odds ratios (and 95% confidence intervals) across categories of the outcome variable.

Results: There was no significant difference between the mean age of the groups (p=0.554): 29.5 (±5) years for women who had normal pregnancy (NP), 30.0 (±5) for those with acute maternal morbidity (AMM) and 28.6 (±6) for those with near misses (NM). There was significant difference between the three groups of women with respect to maternal education (p=0.044). Factors strongly associated with maternal morbidity were late referral of women, presence of complications at booking antenatal visits, low birth weight, and severe birth asphyxia. The nearmiss women were further characterized, and a low proportion (25%) had organ dysfunction or failure.

Conclusions: The challenge of such diagnoses in resource-constrained settings raises questions about the appropriateness of using organ dysfunction criteria in developing countries.

P0035
607 CASES COMPARATIVE ANALYSIS OF PREGNANCY OUTCOMES OF PREMATURITY WITH OR WITHOUT PRETERM RUPTURE OF MEMBRANES

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Objectives: To explore the effects of preterm premature rupture of membranes on the maternal and perinatal outcomes.

Method: The clinical data of 607 cases of premature from January 2003 to December 2013 were retrospectively analyzed. 607 cases were divided into two groups: 369 patients with premature rupture of membranes, while the others were the control group. Pregnancy outcomes were compared between the two groups.

Results: In group PROM, cesarean section rate was significantly higher than the group of premature without preterm rupture of membranes (18.43% vs 11.76%, P<0.05); the length of hospital stay was significantly higher (6.3 days vs 5.5 days, P<0.05); the newborn infection rate was significantly higher (20.51% vs 11.32%, P<0.05); the RDS was significantly higher (9.23% vs 2.83%, P<0.05).

Conclusions: Premature rupture of membranes has a higher cesarean section rate and a higher premature children and perinatal morbidity. Therefore, early detection and appropriate treatment
to reduce incidence of preterm rupture of membranes and preterm child morbidity is important.

P0036
THE FACTORS AND OUTCOME OF OBSTETRIC-RELATED ICU ADMISSION: 2004–2014
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Objectives: To identify the epidemiologic profile, factors and maternal outcome rated in the obstetric intensive care unit (ICU).

Method: A retrospective cohort study was conducted between June 2004 and June 2014 in a tertiary referral ICU, the third hospital affiliated to guangzhou medical university, Guang Zhou, China. To compare the epidemiologic profile, factors, management and maternal outcome of the patients.

Results: 57.6% of the patients were admitted for direct obstetric causes, and 42.4% were admitted for indirect obstetric causes. The mortality (10.1% vs 4.9%), the length of stay in ICU (4.9±6.4 vs 3.6±4.0) of indirect obstetric patients was higher. The mechanical ventilation rate of direct obstetric patients was higher (49.1% vs 39.8%). It was difference in the rate of MODS, hemofiltration. Among 485 direct obstetric patients, 32.7% had HPDs, 19.2% had bleeding disorders, and 14.2% had infection. Among 357 indirect obstetric patients, 12.2% had heart disease, 5.5% had pulmonary infection. It was difference in the rate of mechanical ventilation, hemofiltration, MODS, mortality, the ength of stay (P<0.05).

Conclusions: The third trimester or the post-partum period was the most critical period during the pregnancy. The HPDs, the bleeding disorders and the obstetric correlation infection were the main direct obstetric causes to referral to ICU. The heart disease, hepatitis, and the infectious complications were the main indirect obstetric causes to referral to ICU.

P0037
SUBACUTE PUERPERAL UTERINE INVERSION: A CASE REPORT
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Objectives: To reduce the maternal morbidity and mortality due to mismanaged third stage of labour.

Method: A selected case study.

Results: Though the mortality of the patient could be avoided by proper treatment but the morbidity was inevitable.

Conclusions: Puerperal uterine inversion is an extremely rare and severe complication in third stage of labour. The diagnosis is essentially clinical. The mortality can be prevented by immediate diagnosis and prompt treatment which associates medical resuscitation and a rapid manual reversion of the uterus to avoid serious morbidity like invasive surgical approach. It can be prevented based on eviction of predisposing factors; admittedly active management of third stage of labour can reduce the incidence of uterine inversion.

P0038
MATERNAL MORTALITY IN RURAL NIGER DELTA REGION OF NIGERIA ON THE EVE OF 2015
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Objectives: This study evaluated the socioeconomic factors, causes of maternal mortality and health system contributions to maternal mortality in a rural setting in a developing country.

Method: This was a retrospective analysis of maternal death in the first decade of Madonna University Teaching Hospital Elele, Rivers State from January 2005 to December 2014. The dying-in and labour ward registers and case records from records’ department were used to retrieve relevant information concerning the patients. The data generated was analysed using SPSS version 20.

Results: 26 maternal deaths were recorded out of 2025 deliveries in the hospital giving a case fatality of 1.283 per 100,000 delivery. The mean age and parity of the women were 27.3±4.7 and 2.3±2.1 respectively. 24 (92–3%) were unbooked in the hospital. Only 1 (3.8%) had post-secondary education while 13 (50%) were petty traders. 5 (19.3%) were referred from traditional birth attendants and 6 (23.1%) from maternity homes. The leading causes of death were Sepsis 7 (26.9%), hypertensive disorders 6 (23.0%), obstetrics haemorrhage 6 (23.0%) and obstructed labour 4 (15.4%). Twenty three (88.5%) of the deaths occurred in the postpartum period.

Conclusions: The maternal mortality recorded in this study is higher than the national average. The pattern is also different. This showed that clean and safe delivery is still a scarce commodity in rural areas of Nigeria. There is need to raise the socioeconomic status of the rural dwellers, provide comprehensive obstetrics care and encourage early and prompt referral.

P0039
MATERNAL DEATHS: INITIAL REPORT OF AN ON-GOING MONITORING OF MATERNAL DEATHS AT THE FEDERAL MEDICAL CENTRE KATSINA, NORTHWEST NIGERIA
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Objectives: To assess the maternal mortality ratio (MMR) from data collected as maternal deaths occurred over a 4-year period.

Method: A Departmental database established in 2008 was used to keep data on deliveries and maternal deaths as they occurred. The causes of death were decided after a meeting reviewed the case. Analysis was done using Microsoft Excel software and results presented in means and frequencies.

Results: Eight thousand two hundred and twenty live deliveries that occurred were complicated by 68 maternal deaths. The MMR was 827/100,000 live births. The MMR for unbooked women was four times higher than for booked women. Obstetric haemorrhage was the main (21.6%). Direct cause of death followed by preeclampsia/eclampsia (18.9%). While anaemia was the leading (8.1%) indirect cause of death, tetanus in the puerperium reared its head as an emerging (5.4%) indirect cause of maternal death. None of the women ever used contraceptives. Most deaths occurred in teenage mothers (23.5%), unbooked women (86%) and in the postpartum period (69%).

Conclusions: The MMR was high and tetanus in puerperium emerged as an indirect cause of maternal deaths. There is a need to curb the emergence of tetanus in the puerperium as a cause of maternal death.

P0040
THE ASSOCIATION BETWEEN INTER-PREGNANCY INTERVAL (IPI) AND PREGNANCY OUTCOME
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Objectives: Both short and long inter-pregnancy intervals have been found to increase the risk of various adverse perinatal and obstetric outcomes. The aim of this study is to evaluate the association between inter-pregnancy interval (IPI) and pregnancy outcomes.

Method: A cross-sectional study was done among 661 parous women admitted in the Department of Obstetrics & Gynaecology, Shaheed Suhrawardy Medical College Hospital, Dhaka, during 1st April to 30th December’ 09. Data were collected by direct interview
and reviewing records using a structured data collection sheet about pregnancy, maternal and perinatal outcome. In this study IPI of 24–60 months was taken as the reference category. Data analysis was performed using SPSS version-16 and statistical analysis was done using appropriate statistical test (Odds ratio = 95% CI, Chi square test (χ²) and Fisher exact test, results considered significant when P < 0.05.

Results: Spontaneous abortion was higher (p < 0.001) in 6–11 months and 12–24 months IPI (OR: 3.00, 95% CI: 1.61–5.58 and OR: 2.29, 95% CI: 1.19–4.41 respectively). Induced abortion was higher (p < 0.001) in 12–24 months IPI (OR: 3.47, 95% CI: 1.71–7.08). Maximum IUD was found in < 6 months of IPI, IPI < 24 months increased (p < 0.05) the risk of PROM, oligohydramnios, pre eclampsia, IUGR (majority are <6 months). PE, PROM were found more in > 60 months IPI. IPI < 6 months had increased (p < 0.05) the risk of Preterm birth, Neonatal sepsis and LBW.

Conclusions: In this particular sample, Inter-pregnancy interval (IPI) between 25–60 months have a lower chance of fetal loss and less adverse maternal & perinatal outcome than those with shorter and longer IPIs.

P0041
PROMOTING QUALITY IMPROVEMENT AT HEALTH FACILITIES IN DAR ES SALAAM
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Objectives: To improve the quality of maternal and neonatal care using the national basic emergency obstetric and neonatal care standards based management (BEmONC SBRM) tool at 16 maternity units in the Dar es salaam Region.

Method: CCBRT collaborated with the Ministry of Health and Social Welfare, regional, municipal and facility leaders to design and implement a multipronged intervention. Managers were trained in SBRM tool management, and service providers were trained using national BEmONC, Perinatal Education Program curricula. CCBRT trainers coached providers through on-the-job training. Quality improvement teams were strengthened and trained on assessment, root cause analysis, and finding local solutions. CCBRT also supported infrastructure improvements and supplied essential medical equipment.

Healthcare providers were assessed using the SBRM tool. CCBRT administered six SBRM assessments annually. Trainings and infrastructure works were based around gaps identified during assessments.

Results: Approximately 2,138 doctors and nurses were trained by the end of 2014. The SBRM-R assessments demonstrated that competency increased from 9% to 78%. As a result of infrastructure improvements, more women accessed these maternity units; in 2011 there were 9% to 78%. As a result of infrastructure improvements, more women accessed these maternity units; in 2011 there were 9% to 78%.

Conclusions: A combination of on-the-job coaching, training, and mentoring; as well as infrastructure upgrades were effective tools for improving the quality of care and reducing maternal and newborn death. There were some challenges; most notably maintaining an adequate staffing levels to meet the increased demand for services. This may have contributed to a fall in competency during the final assessment. More detailed analysis is required to understand the full effects of unrealistic staffing norms on competency. Future capacity building and quality improvement programmes must address both gaps in care and infrastructure in order to see widespread improvement.

P0042
IMPROVING COMMUNICATION BETWEEN COMMUNITIES AND HEALTH FACILITIES USING MOBILE PHONE TECHNOLOGY WITH INFORMATION POWER RESULTS IN IMPROVED CARE OF VULNERABLE MOTHERS AND NEWBORNS – A CASE OF FOUR RURAL HOSPITALS IN UGANDA
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Objectives: 1. To establish a functional communication system among health workers within a health facility (intra-hospital) and the catchment area (inter-hospital). 2. To promote improved communication between mothers in the communities and health facilities using a toll free telephone lines.

Method:
• Interventional research selected 4 pilot hospitals based on national criteria, i.e. Public, Private Not-for-Profit and Private For-Profit and Baseline survey done by STM.
• Site survey by ICT/communication engineers to choose most reliable network in the catchment area.
• Dialogue meetings with community members/Village Health Teams (VHT), District Leaders and Health workers regarding toll free service installation and utilization using drama, radio, religious gatherings, police and IEC materials.
• Ongoing on site mentoring of Health workers on the effective use of toll free lines.

Results:
• Installed secured and stationary toll free hotlines in Maternity Units of four hospitals (Kawolo, Buikwe, Naggalama, Mukono).
• A mobilized and educated community regarding toll free use for MCH emergencies in the catchment area of the four hospitals.
• Over 7,200 telephone calls made by community/mothers to hospitals with over 120 referrals.
• At least 42 laboratory consultations (blood transfusion).
• “We are now able to prepare for patients better when they call before coming” (Incharge Midwife).

Call analysis:
• ANC mothers – 20%
• Pregnancy complications – 44%
• Husbands – 18%
• Newborn complications – 7%
• TBAs – 8%
• Others – 3%

Conclusions: Caller User Groups (CUGs) and toll free lines are an inexpensive, cost-effective ($1.65 per interventional call) method of improving inter- and intra-hospital communication for midwifery service providers. Toll free lines are an efficient link between rural communities and health facilities in case of life-threatening complications they contribute to reducing the 3 delays CUGs motivate health workers and contribute to a more favorable working environment.

P0043
OBSTETRIC INTENSIVE CARE UNIT ADMISSION EVALUATION (ICU): AN IMPORTANT PARAMETER IN ASSESSING MATERNAL MORTALITY & MORBIDITY
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Objectives: 1. To review all critically ill obstetric patient who were admitted to the Department of OB-GYN & subsequently transferred to ICU of a tertiary care hospital to identify the demographic char-
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**P0044 MEDICAL DETERMINERS OF THE MATERNAL MORTALITY IN TUNISIA**

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**Objectives:** The maternal mortality (MM) is a important problem worldwide, and especially in developing countries. Within the framework of the fight against this plague, Tunisia made a commitment to reach the 5th Goal of the Millennium for the Development of the United Nations.

**Method:** In order to calculate the scale of the problem and to estimate the advance towards the fulfillment of this objective, a national survey on the maternal mortality was led by the National Institute of the Public health in 2008–2010.

**Results:** The ratio of MM in Tunisia was 44.8 for 100,000 live births. There was a significant reduction of maternal mortality: 35% in ten years. Mean age of the women was 33.2 years. The average number of antenatal consultations was 3. Only 10% of the deaths arose at home against 27% in 1993–94. Only 6% of deaths followed a complicated abortion. 51.9% of the deaths arose in post-partum, mostly within first 24 hours. Hemorrhage remained, the main cause of MM: 31.7%. Among the recorded maternal deaths, 70.9% were considered avoidable.

**Conclusions:** The quality of the care stays at the heart of the problem of the MM in Tunisia.

**P0045 SEVERE MATERNAL MORBIDITY AND MORTALITY DUE TO POSTPARTUM INFECTION: A CROSS-SECTIONAL ANALYSIS FROM RWANDA**

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**Objectives:** Maternal mortality in Rwanda has decreased steadily from an estimated 952/100,000 live births in the year 2000 to an estimated 320/100,000 in 2013. Postpartum infection, however, remains a significant cause of maternal death. The objective of this study is to identify evaluate “near miss” severe morbidity and mortality in women with postpartum infection. The objective of this study is to identify severe morbidity and mortality in women with postpartum infection in the largest public referral hospital in Rwanda.

**Method:** We performed a retrospective review of all patients admitted to the University Teaching Hospital of Kigali (CHUK) with infectious complications between January 2012 and December 2013. Demographic data, length of stay, initial surgery, antibiotics, and secondary surgery were recorded. The primary outcome was a composite of maternal mortality or severe morbidity defined as need for hysterectomy and/or more than one laparotomy. Statistical analysis was performed using STATA. Differences in the primary outcome were assessed using the Fisher exact test. Differences in a secondary outcome of median length of stay were assessed using the Kruskal-Wallis test.

**Results:** We identified 117 patients with postpartum infections. Diagnoses at the time of admission included: peritonitis (57%), deep surgical site infection/fasciitis (17%), endometritis (15%) and other infectious complications (7%). Primary procedures performed prior to transfer were: cesarean section (75%), abortion (14%), and vaginal delivery (6%). Antibiotics were initiated prior to transfer in 66% of women. Surgery was required in 73% of patients. Twenty two percent of patients required hysterectomies. Peritonitis, public insurance, and referral from a District Hospital were significantly associated with the composite risk of severe morbidity or mortality. Maternal deaths occurred in 4% of our cohort, despite aggressive therapy.

**Conclusions:** Peritonitis, secondary to cesarean deliveries, is associated with significant morbidity and mortality in our population. Although cesarean deliveries are potentially life saving for mothers and babies, the procedure is not without potential life threatening sequelae, in our setting, peritonitis is the most common cause of near miss morbidity and mortality and warrants further investigation.

**P0046 MATERNAL MORTALITY: A TWENTY FIVE YEARS’ RETROSPECTIVE STUDY IN A TERTIARY CARE HOSPITAL IN NORTH-EAST INDIA**

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**Objectives:** The study was aimed at evaluating the spectrum of causes of maternal deaths and to seek its remedy.

**Method:** The present study was based on a primary data of 1,52,708 live births occurred during January 1989 to December 2014 at Regional Institute of Medical Sciences Hospital, Imphal, Manipur in far northeastern state of India. The data was analyzed through SPSS package using χ² test.

**Results:** The overall MMR was found to be 148.12 per 100000 live births. Out of the complications: hemorrhage (46.18%), sepsis (20.40%) and toxemias (10.48%) were the major killers. In case of socio-demographic factors: age, parity and education were found to play a significant role. MMR was higher in illiterate mothers, unbooked, women residing in rural areas compared to literate, booked and urban areas (p value <0.001). Majority of the deaths occurred in the first 24 hours of admission and in the postpartum period.
Conclusions: Maternal mortality rate of Manipuri women were varied over during the last 25 years. Improving female literacy, access to effective contraceptives, good quality health care as well as good transport facilities may reduce maternal deaths.

P0047
ASSESSMENT OF REFERRAL SYSTEMS OF PREGNANT WOMEN AND NEWBORNS IN SOUTH AREAS OF KYRGYZSTAN
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Objectives: Kyrgyz Republic have high maternal mortality rate 55.5. The main causes of deaths are bleeding (44%), pregnancy-induced hypertension (19%) and sepsis (14%). It is due to the low quality of emergency obstetric care (55.8% cases - inappropriate care), lack of criteria and standards of referral, underdeveloped transport system. Objective is evaluation of referral systems of mothers and newborns in the south of the Kyrgyzstan (Uzgen, Kara-Suu, Karakuldja areas), from primary health care to secondary and tertiary level. Choice of regions was determined by density of population, high fertility rates, the availability of home birth (4%), and distance from centers.

Method: Held data collection at the organizational level, analysis of medical records, redirection logs of both sending and receiving health levels, quality of filling, content, ambulance records, and audit of 36 clinics (infrastructure, availability of equipment for antenatal, birth and postpartum care), anonymous survey among 241 women (social situation, births, knowledge in issues of pregnancy and births, risks health of newborn, readiness for birth and perception of local conditions) and anonymous 79 test of medical personnel consisted of questions from antenatal, intranatal and postpartum care for newborns and also questions of redirection.

Results: 55.6% women observed by obstetricians, 18.3% – midwives, 38.7% – decided place of birth itself, 36.8% – with husband, 17.7% – mother in law’s. If start labor 91.2% women use private car, 6.5% ambulance. Antenatal care knowledge of family doctor – 74%, obstetricians – 69%, midwives – 68%, neonatologists – 61%, labor, postpartum care: obstetricians – 76–74%, midwives – 69–47%, neonatologists – 66–56%, knowledge on referral – 68%, 5% women referral by ambulance. 5 of 36 clinics have Internet, 16.8% – inside bathroom, 83.4% – no basic conditions, in 22 – water is outside. Ambulance no equipped, 4% of finance allocate to transport.

Conclusions: Almost all organizations have a low level of infrastructure and knowledge of medproviders. There are drawbacks in transport service: the rigid standards have not been revised, incompetence of the consultants, a need to develop a set of documents for the referral systems. In improvement of referral systems leading role belongs to hospital management to integrate with the local authorities and services. For implementation in clinics developed: steps towards effective implementation of transport and counseling, notification scheme of participants of emergency advice, service agreement for medical advisor, a patient card of the transport, ambulance call, transport medical care cards.

P0048
RETAINED PLACENTAL TISSUE AS AN EMERGING CAUSE FOR MALPRACTICE CLAIMS
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Objectives: To review malpractice claims regarding intrauterine adhesions, and to explore the clinical approach that might reduce those claims or improve their medical and legal outcomes.

Method: We examined 42 Asherman’s syndrome claims handled by MCI, the largest professional liability insurer in Israel. The clinical chart of each case was reviewed and analyzed by the event preceding the adhesion formations, timing and mode of diagnosis, and outcome. We also assessed whether the adverse outcome was caused by substandard care and it it could have been avoided by different clinical practice. The legal outcome was also evaluated.

Results: Forty-seven percent of the cases occurred following vaginal delivery, 19% followed cesarean section, 28% were RPOC following a first-trimester pregnancy termination, and 2% followed a second-trimester pregnancy termination.

Conclusions: It is apparent that due to the lack of an accepted management protocol for cases of RPOC, it is difficult to legally defend those cases when the complication of Asherman syndrome develops.

P0049
SKILLED DELIVERY UTILIZATION & THEIR DETERMINANTS IN FOUR REGIONS OF ETHIOPIA
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Objectives: The objective of this assessment is to determine skilled delivery utilization rate and identify lessons for scale up and explore community perception about facility delivery.

Method: The study was a cross-sectional pre-post intervention operational research that has employed both qualitative and quantitative methods. An assessment of 96 health centers was made using the WHO facility readiness tool at base line and end line. Thirty two focus group discussion and 69 key informant interviews were conducted to assess community awareness & barriers to institutional delivery and identify lessons learned for scalability. Analysis was made using SPSS version 20 for quantitative and Nvivo 7 for the qualitative.

Results: Equipping health care workers with the required knowledge and skills through an in-service training on selected MNH competencies has improved from base line to end line: BEmONC (44% to 99%) and LAFP (58% to 80%). Facilities readiness in terms of providing women friendly services have shown improvement from 21% to 63% while there is still room to make it 100 percent in all HCs. Majority of the health managers (KII) at different levels have also mentioned that the comprehensiveness of the support by IFHP is working well and need to be scaled to other facilities as well.

Conclusions: An intervention to be effective and impact making in maternal and newborn health should be comprehensive that addresses community level, facility level and health systems level barriers. Thus, efforts should be made at all levels. Providing woman friendly service and holding cultural ceremonies after delivery improves the utilization and acceptability by the community.

P0050
BIRTH PREPAREDNESS AND COMPLICATION READINESS: A STUDY OF PREGNANT WOMEN IN IRRUA, SOUTH-SOUTH, NIGERIA
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Objectives: This study was carried out to assess the level of birth preparedness and complication readiness and their associated factors among antenatal care attendees in a tertiary institution in South-South Nigeria.

Method: This study is a descriptive cross sectional study conducted among consenting 430 pregnant women attending the antenatal clinic of Irrua specialist Teaching Hospital, Edo State, Nigeria from October-December 2015. The data was collected with the aid of a pre-tested interviewer structured questionnaire and analyzed using SPSS 21.0. Univariate and logistic regression was carried out. Test of statistical significance was done using Chi-square and Fisher's exact test where applicable with acceptable level of confidence set at P < 0.05.

Results: 430 pregnant women were recruited for the study. The mean age of the respondents was 29.91±4.255. In this study, 73.5% of the respondents were aware of the possibility of severe bleeding.
during pregnancy while 85.1% mentioned severe bleeding as one of the complications during labor. Only 29.3% of the respondents met the criteria of BP/CR in this study. Birth preparedness and complication readiness was higher among educated mothers and knowledge of obstetric danger signs was also significantly associated with BP/CR (P=0.000 and P=0.000 respectively). Only 12.1% of the respondents had community based support services.

**Conclusions:** Birth preparedness and complication readiness in this study was low. Education had a strong influence and knowledge of key danger signs were identified as associated factors. Furthermore, community participation was observed to be low. Improved education on birth preparedness and complication readiness with emphasis on recognition of key Obstetric complications is recommended. Community based health education is also recommended.

**P0051**

**PREVENTION AND MANAGEMENT OF PPH AND PE/E IN IDENTIFIED SIX HOSPITALS IN ETHIOPIA**

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**Objectives:** Ethiopia is the second most populous country in Africa (85.9 million) with a maternal mortality of 676/100,000 live births, skilled birth attendance rate 22%, and CPR of 29%. Hemorrhage and preeclampsia/ Eclampsia (PE/E) are the major causes of maternal death (post-partum hemorrhage (PPH) 22% and hypertension 20%). FIGO supported by Jhpiego, is working in reducing maternal mortality related to these causes by promoting best practices in Uganda, Sudan, Mozambique, Nepal, India and Ethiopia. FIGO Sub grants to each countries OB/GYN professional associations.

**Method:** The main components of this project include:

1. Identify protocols, guideline, and best practices and see consistence with FIGO and WHO guidelines.
2. Select hospitals and conduct a one day consultative meeting.
3. Implement best practices or address barriers to sustain implementation.
4. Report and develop recommendations based on the project findings.

**Results:** A total of six hospitals were involved in the project data was collected monthly, the recommendations on challenges and barriers includes.

**PPH – Recommendations:**
- Training on AMTSL, basic emergency obstetric care.
- Develop Job aid, wall charts and posters.
- Availability of basic supply like oxytocin, misoprostol.
- Advocate for institutional delivery.
- Home friendly delivery care in a facility.

**PE/E – Recommendations:**
- Purchase basic supply, drugs and equipment.
- Training on emergency care.
- Incentive, staff motivations.
- Improve quality of antenatal care to detect preeclampsia early.
- Strengthen referral system.

**Conclusions:** Promoting best practices by addressing barriers and challenges to PPH, PE/E will lead to significant reduction of maternal morbidity and mortality related to the two major causes of maternal death.

**P0052**

**TRENDS IN MATERNAL MORTALITY IN A Gambian TERTIARY HEALTH CENTRE**

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**Objectives:** To determine the trend in maternal mortality ratio between January 2007 and December 2013 at EFSTH and identify any changes in the causes of maternal mortality.

**Method:** A retrospective review of all maternal deaths occurring in the Edward Francis Small Teaching Hospital from 1st January 2007 to 31st December 2013 was done. Case abstraction was done with a pre-structured questionnaire using the WHO definition of maternal mortality. Descriptive statistics was generated using the Epi Info 7 statistical software from CDC Atlanta.

**Results:** 612 maternal deaths occurred during the period. The MMR ranged from 1667/100,000 live births for 2007 to peak at 2105/100,000 in 2011 after showing a slight initial decline. Direct maternal deaths accounted for 77.8% of all deaths with obstetric haemorrhage (32.7%) the leading cause. 80.8% of maternal deaths were referred from other health facilities and 61.8% of all maternal deaths occurred within 24 hours of admission. The average time spent on admission before death was observed to have progressively decreased with referrals ending in death increasing progressively.

**Conclusions:** There has not been any improvement in the Maternal mortality ratio in the only tertiary centre in The Gambia. The fact that most deaths occurred within 24 hours of referral to the hospital suggests a need to strengthen the capacity of primary and secondary levels of care to identify problems, treat appropriately and refer in a timely manner.

**P0053**

**HOW CLOSE ARE WE IN ESTIMATING BLOOD LOSS FOLLOWING DELIVERY? AN EVALUATION OF VISUAL ASSESSMENT**

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**Objectives:** The accurate measurement of blood loss at delivery remains an unsettled issue. Many studies have recommended while others have discreted visual assessment of blood loss; however, it is agreed that nearly all available methods leave room for improvement. Furthermore, visual assessment appears to be the most widely applied method in settings where most deliveries occur. This observation emphasises the need for training and retraining in this method of estimation of blood loss. This pilot study was designed to evaluate the accuracy of visual blood loss estimation by health care providers and to stimulate a desire to improve where required.

**Method:** This was a cross sectional study conducted among health care providers. The participants were invited to visually estimate different volumes of blood simulator, representing free and clotted blood, collected in 4 kidney dishes, accepting an error margin of 20%. This was a cross sectional study conducted among health care providers. A self-administered questionnaire was used to document the participants’ age, sex, profession, designation and years of practice. The correct volumes were revealed immediately. The information retrieved was coded and analyzed with SPSS version 20.0. The results of this pilot study formed the basis for an on-going research targeting training and evaluation of obstetric and midwifery staff in our hospital.

**Results:** There were 54 respondents, with majorities being over 30 years, males and resident doctors. The average group performance was 35.2% with residents and private general practitioners (GPs) having the highest score of 37.5% accuracy. Free blood was more accurately assessed than clotted or gauze/towel-soaked blood (75.9% vs 64.8%). Small volumes of free blood were better assessed, while gauze-soaked blood was more likely to be overestimated and clotted blood more likely to be underestimated. GPs and residents estimated free blood better but clotted blood poorer than consultant obstetricians though the differences were not statistically significant (P=0.074 and P=0.274 respectively).

**Conclusions:** The overall performance of the respondents in this study was poor. There is need to continually train all health care providers on visual estimation of blood loss.
**P0054**
TRADO-CULTURAL AND SOCIO-ECONOMIC EFFECTS OF FETO-MATERNAL OUTCOME IN A RURAL COMMUNITY IN THE NIGER DELTA: 5 YEARS RETROSPECTIVE STUDY IN NDUTH, OKOLOBIRI

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**Objectives:** The objective of the study is to understand the likely socioeconomic, trado-cultural impact on the negative outcome on pregnancies in the rural and semi-urban settlements in the Niger delta. Advocate; if necessary the need for reevaluation of our trado-cultural practice, the non adherence to modern medical care. To educate and empower more precisely the targeted group: suggesting ways in reducing negative fetal outcome and maternal complications associated with pregnancy in our society and the region in general were reviewed.

**Method:** All pregnant women admitted and managed to delivery with some forms of negative feto-maternal outcome between 1st January 2009 and 31st of December 2013 at the Department of Obstetrics and Gynecology, Niger Delta University Teaching Hospital, Okolobiri, Nigeria. A newly established tertiary health institution, located within the rural community in Bayelsa State. It covers the rural communities and also referrals from other institutions both public and private from the whole state. It is a teaching unit for specialist obstetricians and gynecologists in training, as well as undergraduate medical students of the Niger Delta University, college of medicine.

**Results:** During the study period 508 patients with some pathologic outcomes in a total of 2815 deliveries were recorded. The incidence ratio of stillbirth was 31.62‰ and maternal mortality was 5.68‰. The major contributor to maternal mortality was PPH, obstructed labour and preeclampsia contributed more to stillbirth. Only 22.64% attended antenatal clinic at least once during the pregnancy, 83.07% were managed primarily by the TBA and 72.44% had abdominal massage prior to presentation. Anemia was present in 61.61%, only 9.65% had post secondary education, 91.14% resides in rural areas, while only 3.74% were pension ably employed and cesarean section rate was 45.27%.

**Conclusions:** Maternal mortality and perinatal loss was unacceptable, majority of those incidences occurred among the socioeconomically deprived patients and basically unbooked. Therefore, the need for better health care promotion among the targeted group, re-evaluation some of our trado-cultural practice and non adherence of modern health care; ad vocation and provision of compulsory antenatal care services may have great impact.

**P0055**
COLPOSCOPIC ACETOWHITENING OF VULVAR LESION: A VALIDITY STUDY

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**Objectives:** To evaluate the acetowhite changes of the vulva as a predictor for high grade vulvar intraepithelial neoplasia.

**Method:** We performed retrospective analysis from 344 patients referred to our gynecology oncology clinic for genital dysplasia. All patients underwent vulvar colposcopy. Vulvar biopsies were performed for acetowhite changes and visible vulvar lesions such as ulceration, hyperpigmentation, and thickening of the vulvar tissue. High grade vulvar dysplasia was defined as vulvar intraepithelial neoplasia 2 or worse. Results of the vulvar pathology were collected and sensitivity, specificity, negative and positive predictive values.

**Results:** Of the 344 women who underwent vulvoscopy 241 patients had acetowhite lesions, of whom 89 had high grade dysplasia. Using colposcopic acetowhite changes as a marker for high grade vulvar dysplasia, the test’s sensitivity was 97%, specificity was 40%, negative predictive value was 98%, and the positive predictive value was 37%.

**Conclusions:** Acetowhiteness of the vulva has high sensitivity but low specificity as a predictor of high grade vulvar intraepithelial neoplasia. The absence of acetowhite lesion can reassure that high grade vulvar lesion is absent.

**P0056**
ASSOCIATION OF LOW SERUM VITAMIN D LEVEL WITH UTERINE ATONY

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**Objectives:** To determine the association of low serum vitamin D level with uterine atony among women delivering in a tertiary care hospital.

**Method:** Case control study. Setting: A total of 130 patients were recruited and grouped as A (Cases) including patients with uterine atony (100 patients) and group B (Controls) patients having no uterine atony (30 patients) after delivery and fulfilling the inclusion or exclusion criteria. The test for 25 OH vitamin D was performed on Elecsys 2010 Roche by using electrochemiluminescence technique. Oral informed consent and approval from institutional ethical committee was obtained. Chi square test was applied to compare atony and non atony groups in terms of presence or absence of vitamin D deficiency. The data entered and analysed on SPSS version 17.

**Results:** It was noted that those who have uterine atony 87% were having vitamin D deficiency or insufficiency as compared to 68% in group with no uterine atony. (p=0.02). In atony group mean age was 25±4 years, gravidia 2.6±1.2, gestational age, 37±1.2, blood loss 1032±400, and serum vitamin D level 15.9±6 ng/ml. In non atony group, group mean age was 26±3 years, gravidia 2.7±1, gestational age, 38±8, blood loss 309±92, and serum vitamin D level 23±9 ng/ml.serum vitamin D level was significantly low (15.9±6 ng/ml) in atony group as compared to non atony group (23±9 ng/ml).

**Conclusions:** Our results revealed that low vitamin D level is strongly associated with uterine atony and hence is a risk factor for uterine atony.

**P0057**
ANALYSING THE CHANGING TRENDS IN PERIPARTUM HISTERECTOMY AT A TERTIARY CARE CENTRE OF INDIA

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**Objectives:** To evaluate risk factors and the changing trends in the indications for peripartum hysterectomy (PH) in recent years.

**Method:** A retrospective study was performed in the Department of Obstetrics & Gynecology, KGMU, Lucknow, India from 1st January 2005 till 31st December 2015. The study material was obtained from the patient database of the hospital medical records. Annual birth rates, LSCS and total cases of PH each year were evaluated. The primary indications for PH were recorded. The intraoperative findings and postoperative outcome/complications were noted. Statistical analysis with \( \chi^2 \) comparison and SPSS10 version was done to evaluate the relevant analysis.

**Results:** Pending.

**Conclusions:** The study highlights the alarming rise in placenta accreta in the previous LSCS and stresses on the need for meticulous selection criteria for performing primary LSCS. Emergency peripartum hysterectomy is a most demanding obstetric surgery performed in life threatening hemorrhage. Antenatal anticipation of the risk factors, involvement of an experienced obstetrician at an early stage of management and a prompt hysterectomy after adequate resuscitation can help in reducing maternal morbidity and mortality.
P0058
THE VALUE OF PLATELET COUNT IN THE DIAGNOSIS OF ECTOPIC PREGNANCY
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Objectives: Six to sixteen percent of all pregnant patients presenting at the emergency room complaining of vaginal bleeding and/or abdominal pain have ectopic pregnancies. These cases lead to 10 to 30% of maternal deaths in developing countries. Recognizing that underdeveloped emergency obstetric care equates to poor health outcomes and improving the structure in terms of simplifying diagnostics and reducing the need for high-end, often unavailable, medical tools, this study aims to ultimately provide a means of affordable, rapid, and timely diagnosis of ectopic pregnancy in a low-resource setting with the use of platelet count.

Method: This is a retrospective case control study of patients with clinical suspicion of ectopic pregnancy and who subsequently underwent laparoscopy or laparotomy at the Department of Obstetrics and Gynecology at St. Luke's Medical Center, Philippines. Patient profiles and outcome measures were tabulated and multivariable analysis and logistic regression were performed using SPSS® Statistics Base.

Results: A total of 158 pregnant patients, in a 1:2 ratio, were included in the study, with 104 patients in the ectopic group and 54 in the non-ectopic group. Between the ectopic group and the intrauterine group, there was no significant difference in the platelet count and when examined further, within the ectopic group, there was no significant difference in the platelet count between ruptured and unruptured ectopic pregnancies.

Conclusions: With the aim of simple and fast diagnosis with the use of platelet count, this study has shown that there was no significant difference between the ectopic and intrauterine groups and further between the ruptured and non-ruptured ectopic groups in contrast to previous studies. This study therefore concludes that platelet count as a simple diagnostic tool may not prove valuable in ectopic pregnancy.

P0059
INTRAUTERINE CONDOM CATHETER BALLOON TAMPONADE IN CONTROLLING INTRACTABLE PPH IN DEVELOPING COUNTRIES: EXPERIENCE IN KHALISHPUR CLINIC, BANGLADESH
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Objectives: The study was undertaken to evaluate the efficacy of condom catheter as an intrauterine tamponade to manage PPH (postpartum hemorrhage).

Method: The study was carried out with 21 patients when PPH occurred due to uterine atonicity and could not be managed with uterotonic and other conventional methods. An sterile rubber catheter was fitted with condom and inserted into the uterus and inflated with 250 to 300 ml of normal saline and was kept in situ for 24 to 48 hours, and then gradually deflated when bleeding ceases.

Results: Among the 21 patients, 20 patients stopped bleeding within 12–15 minutes, and only one patient needed hysterectomy as she developed disseminated intravascular coagulation. No patient died. There were no other complications.

Conclusions: The intrauterine condom catheter tamponade can stop massive PPH effectively and quickly, when other conventional measures fail. At the same time it is safe, easy to implant, materials are easily available, and inexpensive. In developing countries, where PPH remains the leading cause of death, this method can reduce maternal mortality and morbidity.

P0060
EVALUATION OF THE OBSTETRIC INDICES AT A NEW FEDERAL TEACHING HOSPITAL IN SOUTHEAST NIGERIA
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Objectives: To appraise the obstetric indices at a federal teaching hospital in southeast Nigeria.

Method: A three-year retrospective study of the obstetric records at a teaching hospital in Nigeria.

Results: Obstetric indices were generally poor with annual variations - maternal mortality ratio (511/100,000), stillbirth rate (54/1,000), antenatal attendance (65.5%) and contraceptive prevalence rate (17.3%).

Conclusions: Illiteracy, poor socio-economic status, teenage pregnancy, HIV infection and high fertility rates were major contributors to the poor obstetric indices. Health education, scale-up of awareness campaigns and improved maternal and child health care services are needed to improve obstetric outcome of pregnancy in low income settings.

P0061
EVALUATING THE EFFECTIVENESS OF MATERNAL NEAR-MISS AUDIT IN CHINA
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Objectives: To explore the effectiveness of maternal near-miss audit on improving the quality of obstetric care, minimizing the incidence of severe obstetric complications in the hospital, and reducing maternal mortality.

Method: A two-year intervention study was conducted in two healthcare facilities in Henan Province and Chongqing between 2006 and 2007. During the study, the experimental group adopted the method of maternal near-miss audit while the control group did not. Both groups conducted the retrospective investigation of severe cases via an identical survey form before and after the intervention, so as to evaluate the effectiveness of the audit.

Results: In the intervention group, maternal near-miss mortality ratio decreased from 21.2‰ to 18.0‰ in the intervention group, while increased from 0.026 to 0.010. The incidence of severe obstetric complications decreased from 21.2% to 18.0% in the intervention group, while increased from 16.0% to 22.2% in the control group. Meanwhile, in the intervention group, the full-score rate of standard care for all types of severe obstetric complications has increased significantly after the audit.

Conclusions: Maternal near-miss audit can improve the quality of obstetric care and minimize the incidence of severe obstetric complications. Therefore it needs to be expanded further in China.

P0062
REVIEW OF MATERNAL DEATHS AND RESPONSE (MATERNAL DEATH AUDITS) IN RESOURCE-POOR COUNTRIES: ANALYSIS OF 22 HEALTH STRUCTURES IN MALI
M. Traoré, A. Coulibaly, J. Blake, L. Perron. 1Reduction of Maternal and Neonatal Mortality Project in Mali, Bamako, Mali; 2SOGC, Ottawa, Canada

Objectives: The QUARITÉ trial (QUA for quality care, RI for risk management and TE for obstetrical techniques) showed that hospital mortality rates could be lowered by 35% when intervention was combined with improved care provider knowledge, the introduction of maternal death audits, and the supervision of activities by outside supervisors. This observation resulted in an analysis of interven-
P0063
OVERCOMING LOW IMPLEMENTATION LEVELS FOR ESSENTIAL MATERNAL AND NEWBORN HEALTH INTERVENTIONS: RESULTS FROM THE EQUIP PROJECT USING SYSTEMIC QUALITY IMPROVEMENT IN TANZANIA AND UGANDA

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Objectives: Quality management has the potential to overcome barriers to care by assisting facility and community teams to use a problem-solving approach to overcome low implementation levels of essential interventions for maternal and newborn health. We present the effects of a systemic quality management approach at the district, facility and community levels, supported by information from high-quality continuous population-based surveys, on utilization and quality of maternal and newborn health services in Tanzania and Uganda.

Method: In Uganda and Tanzania, the Expanded Quality Management Using Information Power project (EQUIP, 2011–2014) applied a plausibility design to evaluate the effect of quality management with one implementation and one comparison district in each country. We used the improvement collaborative model, in which groups of quality improvement teams (QIT) tested self-identified implementation strategies (change ideas) and followed progress with locally generated data. Evaluation included indicators of process, coverage, and implementation practice using an interrupted time-series approach based on data from continuous household and health facility surveys.

Results: An increase in the number of livebirths where mothers received uterotonic within one minute after birth was observed in intervention compared to comparison districts in both countries (26 percentage point increase [95% CI: 25%–28%] in Tanzania and 8% [95% CI: 6%–9%] in Uganda). There was some evidence of an increase in preparation of clean birth kits for home deliveries in Tanzania, with the difference adjusted for baseline at 31% (95% CI: 2%–60%). In Tanzania our analysis also indicated weak evidence of improved availability of key items for infection prevention (21% difference, 95% CI: −4%–46%) which was not seen in Uganda.

Conclusions: The study indicated that our systemic quality improvement approach was feasible and increased implementation levels of selected essential intervention, particularly in Tanzania where district-own non-earmarked funds were used to support improvement work. The approach was highly appreciated by community, health facility staff and district managers who felt empowered to decide on priorities.

P0064
CAESAREAN OVERUSE AND LACK OF HEALTH INSURANCE AFFECTS SAFE MOTHERHOOD: A PROSPECTIVE NEAR MISS STUDY AT UNIVERSITY HOSPITALS IN TEHRAN, IRAN

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Objectives: To investigate the frequency, causes, risk factors, and perinatal outcomes of severe maternal morbidity in settings with high rate of CS in Tehran, Iran.

Method: A prospective descriptive study of women developing organ dysfunctions during pregnancy, childbirth, and within 6 weeks post partum was conducted at three university hospitals from 2012 to 2014. The modified WHO near miss approach was applied to identify cases. A random sample of admitted women in the maternity units during the study period represented population. Pertinent data was extracted from patients’ notes. Chi-square tests and logistic regression models examined measures and compared differences.

Results: Among 12965 live births, 82 developed severe morbidities and 12 died. Over a third of near misses and 42% of mortalities were referred to the hospitals. Total maternal near miss ratio was 6.3/1000 live births. Majority of maternal near misses resulted from severe postpartum haemorrhage, hypertensive disorders, and placenta previa. The significant risk factors were Afghan nationality; CS delivery, co-morbidity, and severe anaemia while prenatal care gave protection. The increased risk for immigrants and the protective influence of prenatal care disappeared after adjusting for health insurance. Compared with population, adverse perinatal outcomes were significantly higher among cases.

Conclusions: The WHO near miss tool was found practical and useful in middle-income settings. CS and its consequences were clearly associated with maternal near miss. Afghan-born immigrants faced higher risk of severe morbidity through lack of health insurance. Health coverage for reproductive services can provide access to care and improve safe motherhood for both immigrants and natives.

P0065
AFGHAN IMMIGRANTS FACE HIGHER RISK OF SUBOPTIMAL OBSTETRIC CARE: MATERNAL NEAR MISS AUDITS AT THREE UNIVERSITY HOSPITALS IN TEHRAN, IRAN

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Objectives: To examine the quality of care for maternal near miss cases, to determine if the quality of care for Afghan mothers differed from natives, and to identify potentially preventable factors that contributed to severe maternal morbidity.

Method: A prospective audit of selected cases with maternal near miss was conducted at 3 university hospitals in Tehran, from 2012 to 2014. The modified WHO approach was applied to identify cases. A total of 70 case notes with severe maternal morbidity (50 Iranians and 20 Afghans) were reviewed and the quality of care was judged by
consensus. Interviews with patients provided additional inputs. Inadequate and suboptimal care concerning nationality was measured and compared with Chi-square tests and logistic regression models. Potentially preventable factors attributed to near miss were identified at patient, provider, and health system levels.

Results: Overall inadequate care items were identified in 64 near misses (91%). Compared with natives, the risk of suboptimal hospital care was 7.9 times higher for Afghan-born mothers after controlling for socioeconomic factors. However, the increased risk disappeared by adjusting for health insurance. A majority of near miss events (74%) were preventable with adequacy of care at provider (90%), patient (23%), and health system (17%) levels.

Conclusions: Maternal near miss cases received clearly suboptimal care. The greater risk for Afghan mothers ran through the lack of health insurance that could affect accessibility of reproductive services. The most important preventable factor attributed maternal near miss was inadequate practice by care providers. To improve maternal safety, effective actions to target professional performance seem crucial. To address patients’ delays, sociocultural and migration effects on health seeking behaviour have to be identified.

P0066
BIRTH PREPAREDNESS: HEALTH INSURANCE ENROLMENT OF PREGNANT WOMEN AT TWO SECONDARY HEALTH FACILITIES IN LAGOS, NIGERIA

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Objectives: Birth preparedness encourages women to have birth plans and funds to access maternity services. User-fees for maternity in resource-poor settings could be prohibitive and high costs of obstetric services have forced families to cut down on food consumption. Nigeria’s National Health Insurance Scheme (NHIS) reduces out-of-pocket expenditures for maternity services including emergency obstetric care as only 10% of costs of services is paid. The objective of this study was to determine the proportion of women with health insurance in pregnancy and characteristics of health-insured women.

Method: This was a cross-sectional study of women attending antenatal clinic at 2 secondary health facilities in Lagos, Nigeria between October and December 2014. Five hundred and twenty-four (524) participated in the study and responded to a researcher-administered questionnaire. SPSS statistical software was used to analyze the responses and comparison done with Chi Square at 95% confidence intervals with level of significance at P < 0.05.

Results: Fifty three (10.1%) women had health insurance enrolment. The mean age of the women was 30.4 years. When compared with those with no health insurance, health-insured women were not more likely to have identified someone to accompany them in emergency situation (90% vs 88.7%), a blood donor (90.3% vs 88.7%) and saved money for delivery (82% vs 81.1%), though they identified a place of birth more (84.3% vs 90.6%).

Conclusions: Health-insurance enrolment of pregnant women is low. The government needs to expand access by implementing the self-employed and rural community insurance programmes in order to reduce severe maternal outcomes.

P0067
IMPROVING THE COMPETENCE OF THE SKILLED BIRTH ATTENDANT IN RURAL RWANDA: TRAINING MATERNITY NURSES IN NORMAL & OBSTRUCTED LABOR AND POSTPARTUM HEMORRHAGE DIAGNOSIS AND MANAGEMENT

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Objectives: Research has shown that reduced maternal mortality is associated with skilled attendance at birth, however not all “skilled birth attendants” are truly competent. Traditional didactic teaching methods are commonly used to train skilled birth attendants (SBAs) in Sub-Saharan Africa. We aimed to employ a multifaceted training program that combines simulation training with didactics and skills lab sessions to improve the core competency of rural Rwandan skilled birth attendants in normal and obstructed labor, vaginal delivery, and postpartum hemorrhage.

Method: A convenience sample of 19 nurses from rural Rwandan health care facilities participated in the study. The training intervention included a 5-day course of lectures, simulations, demonstrations, and skills labs. Simulation-based clinical scenarios were used to test each participant’s ability to assess normal labor, recognize obstructed labor, manage normal delivery, and recognize and manage postpartum hemorrhage. The same scenario was used as the pre and posttest. Task-based checklists were created using WHO guidelines and used during the simulation to evaluate performance. Paired t-tests were used to measure change in performance score.

Results: After the multifaceted training program, improvement was noted in the following: knowledge of normal labor (p < 0.01), obstructed labor (p < 0.01), and postpartum hemorrhage (p < 0.01); ability to effectively recognize and manage obstructed labor (p < 0.01) and post-partum hemorrhage (p < 0.01).

Conclusions: Simulation training in concert with didactics and skills labs can be an effective form of improving the competence of skilled birth attendants in low resource settings.

P0068
MATERNAL NEAR-MISS AUDIT IN CHINA: THE ESTABLISHMENT AND DEVELOPMENT

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Objectives: To identify the key elements for the successful promotion of a national model of maternal near-miss audit in China.

Method: A narrative review of the first-hand documents about the establishment and development of maternal near-miss audit model in China from 2004 to 2014 was conducted.

Results: From 2004 to 2009, based on maternal near-miss audit framework published by WHO in 2004, we has modified the framework to make it more suitable for Chinese context. The pilot application study was undertaken in selected counties, cities, and provinces to test the feasibility and the effectiveness of the audit model. From 2010 to 2012, we summarized the result of the pilot study and gave guide to some hospitals to conduct audit at provincial, municipality level. From 2013 to 2014, we held two national level trainings of trainers and introduced the methodology of this audit nationwide officially.

Conclusions: The maternal near-miss audit model which developed and promoted by NCWCH within the last decade in China has proven itself as a feasible and effective tool to improve the quality of obstetric care of health facilities at all level across the country. Hopefully, China’ work could provide some references to other developing countries when carry similar works.
**P0069**

**BALLOON TAMponade: A PROspective MulT-CENTER CASE SERIES IN KENYA, SIERRA LEONE, SENEGAL, AND NEPAL**

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**Objectives:** To evaluate the effectiveness and safety of an ultra-low-cost uterine balloon tamponade package (ESM-UBT™) for facility-based management of uncontrolled postpartum hemorrhage (PPH) in Kenya, Sierra Leone, Senegal, and Nepal.

**Method:** This large prospective multi-center case series was conducted in resource-scare areas of Kenya, Sierra Leone, Nepal, and Senegal. A standardized ESM-UBT package was implemented in 307 facilities over 29 months (September 1, 2012 – February 1, 2015). Data were collected via a multi-pronged approach including data card completion, chart reviews, and provider interviews. Beginning in August 2014, women who had previously undergone UBT placement were sought and queried regarding potential complications associated with UBT use. Main outcome measurements included all-cause survival, survival from PPH, and post-UBT-use complications (surgery, hospitalization, antibiotics for pelvic infection) associated with UBT use.

**Results:** 201 UBTS were placed for uncontrolled vaginal hemorrhage refractory to all other interventions. All-cause survival was 95% (190/201). However, 98% (160/163) of women survived uncontrolled PPH if delivery occurred at an ESM-UBT on-line facility. 38% (71/188) of women were either unconscious or confused at the time of UBT insertion. One (1/151) potential UBT-associated complication (post-partum endometritis) was identified, and two improvised UBTS were placed in women with a ruptured uterus.

**Conclusions:** These data suggest that the ESM–UBT package may be an effective and safe method to arrest uncontrolled PPH and save women’s lives. The UBT was successfully placed by all levels of facility-based providers.

**P0070**

**ASSOCIATION BETWEEN THE “FOUR-TOO” (EMPAT TERLALU) AND MATERNAL MORTALITY IN NIAS ISLAND INDONESIA 2010–2012 (5 YEARS AFTER TSUNAMI DISASTER)**

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**Objectives:** There are several things that can improve Maternal Mortality Rate (MMR) in Indonesia remote areas and termed as: the “Four-Too” and the “Three-Delay”. Indonesian language for “Four-Too” is: Empat Terlalu and maternal mortality incidence.

**Method:** This cross sectional retrospective study was conducted at Gunung Sitoli General Hospital with a total sample of 96 mothers from 2010 until 2012 that fulfilled the inclusion and exclusion criteria with a sample collection by purposive sampling technique. Data was achieve from medical record and being analyze with a Chi-square test.

**Results:** From 96 respondents, 19.8% were <20 years of age; 14.5% were >35 years of age; 65.7% were between 20 and 35 years of age. From 36.5% respondents have had <1 or >4 parities and 63.5% respondents had 2–4 parities. Moreover, 31.3% respondents had <2 years of pregnancy interval and 68.8% respondents had a pregnancy interval >2 years. Statistical test demonstrated significant relationship with age is too young (p value = 0.040) and age is too old (p value = 0.043) while pregnant, parity ≤1 or >4 (p value = 0.034) and pregnancy interval <2 years (p value = 0.048) against maternal mortality incidence.

**Conclusions:** There is a significant relationship between the “Four-Too” and maternal mortality incidence in Nias. It is expected that all health personnel to promote health education to fertile couples, pre-marriage counseling and pregnant mothers on risk factors “Four-Too” on maternal mortality.

**P0071**

**THIS IS AN EFFORT TO MAKE A PRACTICAL EXPERIENCE AT A REMOTE HOSPITAL IN ASIA TO BE USED AS A TRAINING SYSTEM FOR THE OBSTETRICS EDUCATION IN JAPAN, WHICH ENCOURAGES JAPANESE MEDICAL PERSONNEL TO JOIN TOGETHER AS A TEAM TO ACHIEVE THE MDGS TARGET**

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**Objectives:** Japan has reduced it’s maternal mortality ratio (MMR) from 180 to 6 between 1950 and 2004. The Millennium Development Goal (MDG) targets the MMR around the world to reduce the rate by three quarters between 1990 and 2015. Bangladesh has worked well to reduce it’s MMR from 322 to 194 between 1998 and 2001. However, there is still much to be done to provide sufficient perinatal care for those in need. As a part of the global network, Japan should participate in reaching the MDGs. We introduced our trial to develop sustainable and bilateral training on both sides.

**Method:** An obstetrician was sent to work for a rural hospital in Bangladesh which had 4,200 deliveries from 2010 to 2011. After this practical experience, she returned to participate on a teaching team to educate midwives and obstetricians. We observed how the education system in Japan could benefit from her experience. There were also 13 other medical personnel from Japan who visited this rural hospital in Bangladesh to observe it’s practices. We followed up with these visitors after they returned to Japan and observed how their experience in a rural area influenced both their motivation and techniques in their home country.

**Results:** The doctor sent to Bangladesh took part in the clinic and the labour room. She was able to train doctors in ultrasonography which helps provide a diagnosis in the situation where no MRI/CT is available. She returned and participated with a training including the supervision of an emergency breech delivery. Out of the thirteen medical personnel who visited Bangladesh, one chose to work in a remote island and another in the disaster area hit by a tsunami. By experiencing a remote environment, Japanese medical personnel are able to gain practical skills and are also motivated to consider of the remote areas in their own country.

**Conclusions:** A system is needed to support and value those who join the practical work in remote areas. Currently, most workers go as volunteers and their work in the abroad is not counted towards their training for their specialist certificate. If this kind of experience could be recognized as a part of their obstetrics training, it would be...
Evaluating Accuracy of Last Menstrual Period (LMP)

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Objectives: According to the World Health Organization nearly 1 million children die annually as a result of preterm birth complications. An estimate of preterm delivery rates and appropriate management cannot be completed without accurate and reliable pregnancy dates. Accuracy of dating methods on maternal and neonatal outcomes has not been well studied in low resource, rural indigenous populations. In this study we aim to assess the accuracy of dating by LMP as compared to ultrasound in a rural Guatemalan community, to validate whether or not it can be used as a reliable marker of gestational age (GA).

Method: In this cross-sectional study 65 pregnant women ages 14–42 were enrolled from rural communities near Lago Atitlán, Guatemala for 1 year. Patients were recruited at 3 main prenatal care sites: Centro de Salud, Hospitalito and community nursing-outposts. Ultrasounds were performed by six Saving Mothers physician volunteers. Dating was assigned using fetal biometrics and the Hadlock method of dating. Parameters measured included crown rump length, head circumference, biparietal diameter, abdominal circumference and femur length. Estimated date of confinement (EDC) by LMP was compared to EDC by ultrasound and the accuracy of menstrual based dating was analyzed using various statistical methods.

Results: Using ACOG guidelines 49% (n=65) of LMP based pregnancy dates were re-dated. Of these 28.1% (n=32) had an earlier ultrasound assigned EDC. The proportion of pregnancies with earlier ultrasound EDC varied with trimester. No ultrasound reassigned dates in the first trimester were earlier than the LMP EDC. 25% of ultrasound reassigned dates for pregnancies during 2nd trimester had an earlier EDC and 50% during the 3rd trimester and later had an earlier EDC. 12.3% (n=65) of women did not recall LMP dates and relied on ultrasound dating.

Conclusions: The results of this study show that LMP based EDC is not a reliable method of estimating GA in this rural indigenous setting. Accuracy appears to decline with advancing GA. Nearly half of LMP based EDCs were reassigned based on fetal biometrics. Because most women in this population present for prenatal care at a later GA, assessment of fetal biometrics by ultrasound should be used whenever possible to establish correct dating. Improved dating in this population would allow for appropriate transfer of women in preterm labor or at risk for preterm delivery to a higher level care facility, improving outcomes.

Life-Threatening Postpartum Hemorrhage: Treatment with Emergency Transcatheter Arterial Embolization at a Tertiary Referral Center

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Objectives: Postpartum hemorrhage (PPH) remains a major factor of maternal morbidity and mortality despite of the advance of obstetrics. Transcatheter arterial embolization (TAE) has emerged in recent three decades and is considered a superior first-line alternative to surgery to control postpartum hemorrhage in nowadays. During a 85-month period, we collected 79 cases via our emergency transfer system. By analyzing these data, we would like to evaluate the efficacy and efficiency of TAE in life-threatening postpartum hemorrhage cases.

Method: This is a retrospective analysis of all patients with life-threatening postpartum hemorrhage, who were transferred via emergency transfer system to a tertiary referral center, then managed with TAE between from April 2004 to May 2011. Patient characteristics, details of embolization and clinical outcomes were collected by chart and telephone review. Embolization was considered successful when no further medication, surgery, or repeated embolization was required. Statistically significant associations between subject characteristics and clinical success were evaluated.

Results: TAE was successful for 75 patients (94.9%). Mean patient age was 31.5 years old (ranging from 26 to 38 years old). Of the 79 patients, 49 (62.1%) had a vaginal delivery. The other 30 (37.9%) had a caesarean section. Specific diagnoses included uterine atony (n=42), abnormal placenta implantation (n=24), laceration (n=10) and retained placenta (n=3). The average length of time for the procedure was 89.3 minutes. The mean stay of hospitalization was 8.1 days. There was no major complication or mortality related to this procedure; 74 patients (93.6%) returned to their normal mense after at least six.

Conclusions: According the experience during the last seven years, the “door-to-cath” time was under 30 minutes in our hospital. We believed that “Time is blood!” and the shorter duration it takes, the more chance of survival the patient gets. To sum up, TAE is an effective and less invasive method to resolve postpartum hemorrhage, and should be regarded as gold standard of the management for PPH if the patient is comparatively hemodynamically stable.
trasound, fetal well-being was the most frequent indication for ultrasound (39%). Other obstetric indications for ultrasound included: bleeding in pregnancy (13.2%) and postpartum infection/peritonitis (7%).

**Conclusions:** We report the point of care use of ultrasound in a large tertiary care hospital in Rwanda. In our setting, all patients received an ultrasound by an MD in the obgyn triage unit prior to hospital admission. The most frequent indication for ultrasound was fetal well-being, followed by bleeding and sepsis/peritonitis. Ultrasound is a key component of the obgyn assessment in this tertiary care setting.

**P0075**

**EXPANDING ACCESS TO POST ABORTION CARE (PAC) SERVICES THROUGH STRENGTHENING THE PRIVATE SECTOR: EXPERIENCES OF THE WOMEN’S HEALTH PROJECT (WHP) NIGERIA, JANUARY 2013 TO DECEMBER 2014**

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**Objectives:** To demonstrate the effect of WHP’s interventions on expanding access to PAC services in it’s operation sites in Nigeria.

**Method:** A retrospective analysis of routine service data from the franchise facilities for the period January 2011 to December 2014. Data was collected from 308 franchise facilities in 22 states in Nigeria. Key interventions included provider training on PAC, use of misoprostol for PAC (mPAC), and manual vacuum aspiration (MVA), routine support supervision and quality assurance, and supply of misoprostol and MVA kits.

**Results:** Overall, a total of 6,288 women accessed PAC services from 308 franchise facilities from January 2013 to December 2014. Of these, 4,057 (65%) had PAC using Misoprostol, while 2,270 (36%) had MVA.

Provision of mPAC increased from 932 between January and December 2013 to 5,356 between January and December 2014 (over five-fold increase).

MVA services started in June 2014, and 2,270 women accessed the service between June and December 2014 from 43 facilities providing MVA services (average of 324 cases per month).

**Conclusions:** It is evident that the burden of abortion is high within the communities (average of 324 cases per month in 43 facilities). Thus, expanding PAC services to more health facilities and communities will ensure better access to a greater number of women in need. This can be replicated in other parts of Nigeria as well as other developing countries with high abortion rates.

**P0076**

**COMMUNITY PERCEPTIONS OF PRE-ECLAMPSIA IN RURAL KARNATAKA STATE, INDIA: A QUALITATIVE STUDY**

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**Objectives:** To assess awareness and understanding of the conditions of pre-eclampsia and eclampsia in rural Karnataka State, India.

**Method:** The study was conducted in Belgaum and Bagalkot Districts, in rural Karnataka State, India, in 2012–2013. Fourteen convenience sample focus group discussions were held with community stakeholders: three with community leaders (N=27), two with male decision-makers (N=19), three with female decision-makers (N=41), and six with reproductive age women (N=132). Focus groups were facilitated by local researchers with clinical and research expertise. Discussions were audio-recorded, transcribed verbatim in Kannada and translated to English for thematic analysis using NVivo 10.

**Results:** There were no terms in the native language specific to pre-eclampsia or eclampsia. Participants explained the causes of seizures in pregnancy to be anaemia, poor medical adherence, lack of tetanus immunization, and gestational exposure to fire or water. Stress and poor diet were believed to be associated with pregnancy hypertension. The warning signs of seizures were poorly known, although sweating, fatigue, dizziness, swelling, and irritability were stated as signs of hypertension. Home remedies, such as the smell of an onion, placing an iron object in the hands, and squeezing the fingers and toes were used to manage seizures in pregnancy.

**Conclusions:** This study describes the knowledge and practices related to hypertension and seizures in pregnancy in rural communities in Karnataka. It is evident that “pre-eclampsia” and “eclampsia” are not well-known as disease entities; instead hypertension and seizures are perceived as conditions that may occur during or outside pregnancy. Improving community knowledge is crucial to early recognition and referral to avert maternal and perinatal morbidity and mortality. Advocacy and educational initiatives should be designed to target the identified knowledge gaps and potentially harmful practices, and respond to cultural understandings of disease.
responsibilities included provision of items needed for institutional delivery, mobilising resources, transport, undertaking home duties to support their wives during pregnancy and childbirth.

**Conclusions:** Male involvement enables husbands to support their wives utilise the maternal health services, prepare adequately for childbirth through emotional, logistical and financial support and impact on birth outcomes. Study results will assist in the design of effective policy for improving institutional deliveries and reduction of MMR that will reflect the cultural importance of positive male engagement.

**P0078**

**SHIFT IN CAUSES OF MATERNAL DEATH FROM DIRECT TO INDIRECT: A TEACHING HOSPITAL EXPERIENCE IN INDIA**

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**Objectives:** To study the causes of maternal mortality in our institution to plan preventive measures.

**Method:** Prospective Observational study on maternal deaths over a period of 6 years (2009–2014).

**Results:** There were 80 maternal deaths for 21,811 deliveries. All cases of maternal mortality were referred from peripheral hospitals and all had antenatal care. Direct causes like hemorrhage and sepsis accounted for 41% of maternal deaths while 51% were due to indirect causes like medical disorders. Among the 33 direct causes, 21 were due to sepsis while hemorrhage accounted for 12. Two important indirect causes were ARDS and cardiac problems. ARDS was seen in 21 patients and 12 of them were due to H1N1. Most of them were very ill on arrival and despite intensive care support they didn’t survive.

**Conclusions:** Antenatal care and government sponsored programs have promoted hospital delivery thereby bringing down maternal deaths due to direct causes. Sepsis and non genital tract infective conditions are now the leading causes for maternal mortality. This is alarming because of emerging bacterial resistance & new epidemics proving fatal for vulnerable pregnant women. Tackling indirect causes will be more difficult compared to direct causes. Early referral from peripheral doctors, appropriate transfer, creating awareness regarding medical disorders in pregnant women may help to some extent.

**P0079**

**THE FEASIBILITY OF TASK-SHIFTING THE IDENTIFICATION, EMERGENCY TREATMENT, AND REFERRAL FOR WOMEN WITH PRE-ECLAMPSIA BY COMMUNITY HEALTH WORKERS IN INDIA**

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**Objectives:** The objective of this study was to review the barriers and facilitators to task-shifting to community health workers the identification, emergency treatment and referral for women with pre-eclampsia in India.

**Method:** The study was conducted in two districts of Karnataka State in South India. Fourteen focus group discussions were held in 2012–2013: six with women of reproductive age, two with male-decision makers, three with female decision-makers, and three with community leaders. In addition, one-to-one interviews were held with medical officers (N=2), private health care providers (N=2), senior health administrators (N=2), district health officers (N=2), and obstetricians (N=4). All data collection was facilitated by local researchers familiar with the setting and language. Data were subsequently transcribed and translated for thematic analysis using NVivo 10.

**Results:** There is strong community support for task-shifting of clinical assessments in pregnancy, such as blood pressure measurement. However, there was concern regarding community health workers’ clinical knowledge, training and competence in applying interventions. Treatment of pre-eclampsia with oral antihypertensive and MgSO4 in emergency cases by community health workers was generally supported; however, some practitioners and administrators had hesitations. The most prominent barriers to community health worker task-shifting in cases of pre-eclampsia, according to obstetric specialists and administrators was, the perception of insufficient training, unavailability of high-quality equipment (ie blood pressure devices) and their inability to appropriately diagnose and intervene.

**Conclusions:** Task-shifting to community health workers was largely supported by the community stakeholders and health care providers in South India. This strategy may be beneficial for early diagnosis and treatment of pre-eclampsia. This study identified facilitators and barriers to such task-shifting, overcoming these barriers are essential to effectively reduce maternal mortality and morbidity. Mobile health-based support may be important in this regard.

**P0080**

**COMMUNITY PERCEPTIONS OF PRE-ECLAMPSIA AND ECLAMPSIA IN SELECTED COMMUNITIES OF SOUTHERN MOZAMBIQUE**

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**Objectives:** The objective of this study was to describe the community understanding of pre-eclampsia and eclampsia, as a crucial step to improve maternal and perinatal health in southern Mozambique.

**Method:** This qualitative study was conducted in Maputo and Gaza Provinces of southern Mozambique. Twenty focus groups were convened with pregnant women, partners and husbands, matrons, traditional birth attendants, mothers and mothers-in-law. In addition, ten interviews were conducted with traditional healers, matrons, and a traditional birth attendant. All discussions were audio-recorded, translated from local language (Changana) to Portuguese and transcribed verbatim prior to analysis with NVivo 10. A thematic analysis approach was taken.

**Results:** The conditions of “pre-eclampsia” and “eclampsia” were not known in these communities in southern Mozambique; however, they were familiar with hypertension and seizures in pregnancy. Terms linked with the biomedical concept of pre-eclampsia were “high blood pressure”, “fainting disease” and “illness of the heart”, whereas “illness of the moon”, “snake illness”, “falling disease”, “childhood illness”, “frightening illness” and “epilepsy” were used for eclampsia. The causes of hypertension in pregnancy were thought to include mistreatment by in-laws, marital problems, and excessive worrying. Seizures in pregnancy were believed to be caused by a snake inside the woman’s body.

**Conclusions:** Local beliefs in southern Mozambique, regarding the causes, presentation, outcomes and treatment of hypertension and seizures in pregnancy are not aligned with the biomedical perspective. The community is mostly unaware of the link between hypertension and seizures during pregnancy. The numerous widespread myths and misconceptions demonstrate a need for increased com-
munity education in southern Mozambique regarding pregnancy and associated complications.

P0081
TASK-SHIFTING THE IDENTIFICATION, EMERGENCY MANAGEMENT AND REFERRAL OF WOMEN WITH PRE-ECLAMPSIA IN MOZAMBIQUE, AND FACILITY CAPACITY TO RESPOND

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Objectives: Maternal mortality is an important public health problem in low-income countries. Delays in reaching health facilities and insufficient health care professionals calls for innovative community-level interventions. The study aims to describe the possibility of task-shifting regarding initial screening and the initiation of obstetric emergency care for pre-eclampsia and eclampsia to community health care providers in Mozambique and to document facility readiness to respond to this task-shift.

Method: The study took place in Maputo and Gaza Provinces of southern Mozambique using qualitative and quantitative methods. The qualitative data were collected through focus group discussions and in-depth interviews with various community groups, health care providers, and policy makers. All discussions were audio-recorded and transcribed verbatim prior to thematic analysis using NVivo 10. Quantitative data were collected through self-administered questionnaires completed by community health workers and health facility assessment surveys, analysed using STATA version 13. Data collection was complemented by reviewing existing documents regarding maternal and community health workers policies, guidelines, reports and manuals.

Results: Community health workers in Mozambique were skilled in identifying the danger signs of pregnancy; however, they were not able to manage emergencies, or effectively refer to the facility. Nurses at primary health centres were trained to manage eclampsia before referral. The necessary equipment for obstetric emergency care was not available in all primary level facilities: MgSO4 was available in 83% primary level facilities, and 96% had an ambulance for referrals. Although community health workers and patients supported task-shifting, other healthcare providers highlighted the need to first address current barriers: lack of equipment, shortage of supervisors, and irregular drug availability.

Conclusions: This study showed that task-shifting screening and pre-referral management of pre-eclampsia and eclampsia is possible and acceptable by the community, but an effort should be in place to remove barriers at the health system level that could affect the appropriate management of the emergency cases.

P0082
SEVERE ACUTE MATERNAL MORBIDITY (SAMM) IN METRO EAST, WESTERN CAPE, SOUTH AFRICA: “EVERY HUMAN BEING HAS THE RIGHT TO LIVE, EVERY CHILD NEEDS A MOTHER, MOTHERS SHOULD NOT DIE BECAUSE OF THEIR PREGNANCY.” HOW CAN WE IMPROVE THE QUALITY OF CARE IN THE EXISTING HEALTH SYSTEM?

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Objectives: The primary objective is to determine:
• The incidence of Severe Acute Maternal Morbidity (SAMM) and Maternal Deaths in Metro East in Capetown, South Africa, as well as the nature of these events, from 1st November 2014 and 31st January 2015 (data collection in total will be 6 months).
• The secondary objectives include:
  • Collection of demographic, obstetric, medical, antenatal, intra-partum and postpartum factors which may have contributed to the event.
  • Assessment of maternal and neonatal outcomes until hospital discharge.
  • Audit of avoidable factors which might have or would reasonably be expected to have made a difference to the outcome.

Method: This study will audit the Severe Acute Maternal Morbidity (SAMM) according to the “WHO defined universal organ system criteria” in Metro East in the Western cape. The study population are all women who fulfil the WHO organ dysfunction based criteria for Severe Acute Maternal Morbidity in the governmental hospitals in Metro East between the 1 November 2014 and 31 January 2015. Metro East has a well functioning referral system, critical ill patients are supposed to be referred to the level 3 hospital Tygerberg Hospital, where the cases will be identified and datasheets are collected.

Results: Three months of data collection have been finished, a total number of 143 patients with SAMM have been collected in the population in Metro East within total number of 8300 deliveries. Most patients in this study were categorised in the haematological category (37), due to severe pre-eclampsia/HELLP or severe postpartum haemorrhage PPH. The respiratory category contained 27 patients, mainly due to pulmonary edema in patients with pre-eclampsia or underlying causes cardiomyopathy, pulm embolism, pneumonia. 14 patients needed a hysterectomy for sepsis or severe PPH.

Conclusions: The major causes of SAMM in Metro East are complications related to hypertension/pre eclampsia, haemorrhage and infection. One third of the cases contained avoidable factors. The majority of the substandard care factors are related to patients being unbooked/late bookers and incorrect recognition by healthcare workers. The results of this study are discussed in the monthly department meeting. This study leads to recommendations to improve the level of care that can prevent SAMM in Metro East in South Africa.

P0083
MULTI-COUNTRY MEASUREMENT OF MATERNAL MORBIDITY

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Objectives: The definition and measurement of maternal morbidity in a standardized method will contribute to reducing maternal deaths. In 2014, the World Health Organization (WHO) defined maternal morbidity as “any health condition attributed to and/or complicating pregnancy and childbirth that has a negative impact on the woman’s wellbeing and/or functioning”. At the time of writing there is no comprehensive, internationally recognised method to measure maternal morbidity consistently in different settings. The Centre of Maternal and Newborn Health (CMNH) has developed a new data
collection tool to measure maternal morbidity (both subjective and objective) in a low and middle income countries.

Method: A descriptive multi-country cross-sectional study to measure maternal morbidity in pregnant and postnatal women at five assessment points – early antenatal (less than 20 weeks), late antenatal (20–40 weeks), post-delivery (within 24–48 hours of childbirth), early postnatal (first week of childbirth) and late postnatal (1–12 weeks postnatal). The statistically derived sample size in each country is 2,880 giving a total of 11,520 women assessed over four countries: India, Malawi, Pakistan and Kenya. The maternal morbidity assessment tool involves a comprehensive questionnaire administered to women in a face-to-face interview. Clinical examination, basic urine and serological investigations are then performed.

Results: Pilot results demonstrate the data collection tool is acceptable to both women and their health care providers. It is feasible to use in the antenatal and postnatal stages of pregnancy and at different levels of health care facilities. Data collection has commenced in three countries - India (1,240 women) Malawi (1,400 women) and Pakistan (20 women). The project is due to begin in Kenya at the start of April 2015. Preliminary descriptive data analyses show that the data tool is capturing the necessary criteria to calculate global summary estimates of physical, psychological and social maternal morbidity.

Conclusions: We present a new data collection tool that is able to identify and measure maternal morbidity in a comprehensive, holistic and robust way. Preliminary analyses highlight that there are certain markers of morbidity that can be combined and used to provide a maternal morbidity “score” both in the antenatal and postnatal periods. We recommend this “morbidity score” can be used as an outcome measure to assess the effectiveness of interventions implemented, especially in the development of evidence based antenatal and postnatal care bundles in low and middle-income countries.

P0084

POLICY REVIEW ON MANAGEMENT OF PRE-ECLAMPSIA AND ECLAMPSIA BY COMMUNITY HEALTH WORKERS IN MOZAMBIQUE

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Objectives: Maternal mortality ratio (per 100,000 live births) in Mozambique has decreased from 500 in 2007, to 480 in 2013; however, this remains high. Hypertension in pregnancy is the third leading cause of maternal death in this region. The limited capacity of the Ministry of Health, low availability of emergency obstetric care, and insufficient skilled health care personnel, indicate a need for community level innovative interventions. Policies must be in place or adapted to accommodate such innovations. This study aimed to review policies related to the use of community health workers to manage pre-eclampsia or eclampsia in Mozambique.

Method: A variety of documents with information regarding the community health workers programme in Mozambique were reviewed. These documents included formal government and institutional policies and other relevant official documents, such as community involvement strategies, community health worker training programmes, monitoring and evaluation manuals, meeting minutes and reports. Both published and unpublished information was used for this analysis. This document review further involved the identification of the timeline of key events and consultations with stakeholders: staff and colleagues familiar with these events were approached to gain insight into the policy process.

Results: In 1976, Mozambique introduced policies to strengthen and extend primary health care. Subsequently in 1978, the community health worker programme was established for health promotion and prevention. The programme was then scaled back; prior to the resolution to revitalize it in 1995. In 2010, a new programme expanded the use of community health workers to manage common illnesses: malaria, diarrhoeal disease, and acute respiratory infections. Community health workers have provided limited services in pregnancy; simple health promotion, detection of warning signs, and referrals. Their role to date has not included care specific to the hypertensive disorders of pregnancy.

Conclusions: The policies regarding the provision of maternity care by community health workers in Mozambique focuses on health promotion and the detection of pregnancy risk. In order to strengthen community level response and reduce maternal and perinatal mortality, there is a need for task-shifting to community health workers. Recommendations for their utilisation in the provision of basic maternal health services should be broadened to include the detection and pre-referral management of pre-eclampsia and eclampsia.

P0085

COMMUNITY PERCEPTIONS OF PRE-ECLAMPSIA AND ECLAMPSIA IN OGUN STATE, NIGERIA: A QUALITATIVE STUDY

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Objectives: This study aimed to recognize the role of the sociocultural environment to learn community-based perceptions of pre-eclampsia and eclampsia.

Method: The study was conducted in Ogun State, Nigeria in 2012. Data were obtained through twenty-eight focus group discussions; eight with pregnant women (N=94), eight with recently pregnant mothers (N=95), four with male decision-makers (N=47), five with community leaders (N=56), and three with traditional birth attendants (N=36). Interviews were also conducted with the heads of the local traditional birth attendants (N=4) and with community leaders (N=5). Data were transcribed verbatim and analysed in NVivo 10.

Results: There was no terminology reportedly used for pre-eclampsia in the native language – Yoruba; however, hypertension has several terms independent of pregnancy status. Conversely, “giri álábáyún” describes seizures specific to pregnancy. The cause of hypertension in pregnancy was thought to be due to depressive thoughts as a result of marital conflict and financial worries, while seizures in pregnancy were perceived to result from prolonged exposure to cold. There seemed to be no traditional treatment for hypertension; however, for seizures the use of herbs, concoctions, incisions, and topical application of black soap were widespread.

Conclusions: This study illustrates that knowledge of pre-eclampsia and eclampsia are limited amongst communities of Ogun State, Nigeria. Furthermore, findings reveal the existence of gap in knowledge regarding the aetiology and treatment of the conditions. A holistic approach is recommended for sensitization at the community level.

P0086

FACTORS ASSOCIATED WITH MATERNAL NEAR MISS IN CHILDBIRTH AND POSTPARTUM: DATA FROM THE “BIRTH IN BRAZIL” STUDY

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Objectives: The objectives of this study were to evaluate the factors
associated with Maternal Near Miss cases in childbirth and postpartum in Brazil.

**Method:** This was a national hospital-based study of 23,894 women that was conducted in 2011–2012. The data used came from interviews with the mothers during postpartum and from hospital medical files. Univariate and multivariable logistic regression were performed in order to investigate factors associated with the MNM with estimation of the crude and adjusted odds ratio and their respective 95% confidence intervals (95% CI).

**Results:** The estimated incidence of MNM was 10.16/1,000 live births (95% CI: 7.14–13.18). In the adjusted analyses MNM was associated with the absence of antenatal care (OR 4.65; 95% CI: 1.51–14.31), search for 2 or more services before admission to delivery care (OR 4.49; 95% CI: 2.12–9.52), obstetric complications (OR 9.29; 95% CI: 6.69–12.90) and type of birth: elective C-section (OR 2.54; 95% CI: 1.67–3.88) and forceps (OR 9.37; 95% CI: 4.01–21.91).

**Conclusions:** In Brazil, the high proportion of elective C-section is attenuating benefits that result from better prenatal care and access to delivery care services, mainly of women of better economic and social conditions. Strategies for reducing rates of MNM in Brazil should include investments in access to prenatal care and childbirth services, facilitating identification of pregnant women and ensuring the linkage of pregnant women to maternity care where labor and delivery will take place, specially for women with greater social vulnerability; and reduction of elective C-sections, specially for women in private services, where rates of caesarean reach 90% of total birth.

**P0087**

**PROGRESSION TO DEATH IN SEVERE PREGNANCY-RELATED SEPSIS: A UK POPULATION-BASED CASE-CONTROL ANALYSIS**

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**Objectives:** To identify factors the demographic, socio-economic, medical, obstetric and management factors associated with progression from pregnancy-associated severe sepsis to death in the UK.

**Method:** Cases and controls were identified using data from the UK Obstetric Surveillance System (UKOSS) and the UK Confidential Enquiry into Maternal Death (CEMD); respectively. All non-influenza sepsis-related maternal deaths (from January 2009 to December 2012) were included as cases, and all women who survived severe non-influenza sepsis in pregnancy (from June 2011 to May 2012) were included as controls. Univariable and multivariable logistic regression analyses were conducted. Of the 12 variables examined in the univariable analysis, only four were found to significantly affect the fit of the multivariable model (antibiotic delay, medical co-morbidities, parity and employment status).

**Results:** Forty-three women who died from non-influenza sepsis and 358 women who survived severe non-influenza pregnancy-associated sepsis were identified. Women who died were significantly more likely to have not received antibiotics (aOR=22.7, 95% CI 3.64–141.6), to have medical comorbidities (aOR=2.53, 95% CI 1.23–5.23) and to be multiparous (aOR=3.57, 95% CI 1.62–7.89). Maternal anaemia (aOR=13.5, 95% CI 3.17–57.6) and immunosuppression (aOR=15.0, 95% CI 1.93–116.9) were the two most important factors driving the association with medical comorbidities.

**Conclusions:** There must be continued vigilance of the risks and consequences of infection in pregnant women with medical comorbidities. Improved adherence to international consensus guidelines on sepsis, alongside prompt recognition and rapid treatment with antibiotics, may reduce the burden from sepsis-related maternal deaths in the UK.

**P0088**

**COMMUNITY PERCEPTIONS OF PRE-ECLAMPSIA AND ECLAMPSIA IN RURAL PAKISTAN**

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**Objectives:** This study aimed to explore community perceptions, and traditional management practices for pre-eclampsia and eclampsia in rural Pakistan.

**Method:** A qualitative study was conducted in Matiari and Hyderabad Districts of Sindh Province, Pakistan from February to July 2012. Twenty-six focus group discussions were conducted, with women of reproductive age and female decision-makers (N=173) and with male decision-makers (N=65). Focus groups were chosen because perceptions of disease and traditional practices were assumed to be interwoven with cultural beliefs and values. The data were transcribed verbatim in Sindhi and Urdu, then analyzed for emerging themes and sub-themes using NVivo 10.

**Results:** Hypertension in pregnancy was mainly recognized as severe headache by communities in rural Pakistan, and no names in the native languages were used to describe either this or the seizures of eclampsia. Most participants were aware that women can develop hypertension in pregnancy; however, the progression to seizures was poorly understood. It was widely believed that stress caused hypertension in pregnancy and that it could result in death. Very few believed hypertension-related complications could occur after birth. Seizures during pregnancy were thought to be caused by weakness, anaemia, and stress. Self-medication for the pre-eclampsia-related symptom, headache was common.

**Conclusions:** Community-based participatory health education strategies are recommended to dispel myths and misperceptions regarding pre-eclampsia and eclampsia. These educational initiatives should include information on the presentation, progression, and treatment of the conditions.

**P0089**

**POTENTIAL FOR TASK-SHIFTING TO LADY HEALTH WORKERS FOR IDENTIFICATION AND EMERGENCY MANAGEMENT OF PRE-ECLAMPSIA AND ECLAMPSIA AT COMMUNITY LEVEL IN PAKISTAN**

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**Objectives:** Annually around 40 million mothers give birth at home without a skilled provider. Most of the maternal, perinatal and neonatal mortalities occur at the community level due to a lack quality care. This study aimed to explore the feasibility for task-shifting to Lady Health Workers for community level management of pre-eclampsia and eclampsia in Pakistan.

**Method:** A qualitative exploratory study was undertaken February-July 2012 in two districts, Hyderabad and Matiari, in the southern Province of Sindh, Pakistan. Altogether thirty-three focus group discussions were conducted, seven with Lady Health Workers, ten with Lady Health Supervisors, nine with women medical officers and seven with traditional birth attendants. The data were audio-recorded, then transcribed verbatim in Sindhi for thematic analysis using NVivo 10. The Lady Health Worker curriculum and training materials were also reviewed and a self-administered questionnaire was completed by 457 Lady Health Workers for further information regarding their obstetric skills and training.
Results: Findings suggested that Lady Health Workers were responsible for registering pregnant women and conducting episodic home visits; however, they did not carry blood pressure devices or antihypertensive agents. In cases of suspected or confirmed hypertension they referred to the nearest public facility. Ninety-four percent of Lady Health Workers reported that families accept their health advice or referrals. Around 44% of the Lady Health Workers mentioned receiving training to identify pregnancy complications while 56% mentioned receiving training to refer or manage pregnancy complication. These findings suggest a need for periodic training regarding patient triage and the management of pre-eclampsia and eclampsia.

Conclusions: There is potential for task-shifting to Lady Health Workers for the identification and management of pre-eclampsia in Pakistan; however, the implementation needs to be combined with appropriate training, equipment availability and supervision.

P0090 TREATMENT CHALLENGES FOR OBSTETRICIANS IN RURAL KARNATAKA, INDIA – A QUALITATIVE STUDY

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Objectives: To identify challenges faced by obstetricians while providing care in Karnataka State, India.

Method: This qualitative study was conducted in Belgaum and Bagalkot Districts of Karnataka State, India in 2012–2013. Staff of six primary health centres (3 in each district) were asked to identify the facilities at which pregnant women in their community regularly accessed obstetric care. A total of 88 facilities were identified. The health care providers at these facilities were then interviewed to gauge the available resources and services. For the purpose of this study, only facilities higher than primary health centres offering inpatient care were considered. Eleven of these facilities were thus excluded. Data from remaining 77 were analysed.

Results: Most facilities assessed were private hospitals (n=56), and the remainder were public (n=21). Thirty-three facilities had adult intensive care units and 48 had neonatal intensive care units. All 77 provided emergency maternal care whereas only 47 provided emergency neonatal care. The availability of specialists was assessed; obstetricians, paediatricians, radiologists and anaesthetists; only 19 facilities had all four. Basic laboratory services were available in all facilities and 51 had capacity for haematologic, renal and hepatic parameters. Blood transfusions were available in 67 facilities. Sixty-nine facilities could perform caesarean sections; however, only 29 could do so within 30 minutes of decision.

Conclusions: This study highlights the vast differences in obstetric services provided by the facilities in northern Karnataka. Although the majority of facilities provided reasonably comprehensive obstetric services, many were lacking in the availability of newborn care. Basic investigations were available in all facilities; however, in order to manage complicated cases, a more elaborate setup is needed. Timely provision of caesarean sections is crucial in preventing many maternal and neonatal morbidities and even mortalities. Though caesarean sections were widely performed, the decision to deliver interval was unacceptably high in many facilities.

P0091 FACILITY PREPAREDNESS FOR ROUTINE AND EMERGENCY OBSTETRIC AND NEWBORN CARE IN NORTHERN KARNATAKA, INDIA

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Objectives: This study aimed to assess the resources and services available for obstetric and newborn care at facilities in northern Karnataka. Furthermore, the study examined facility management of obstetric emergencies.

Method: This study was conducted in Belgaum and Bagalkot Districts of northern Karnataka, India in 2012–2013. Staff of six primary health centres (3 in each district) were asked to identify the facilities at which pregnant women in their community regularly accessed obstetric care. A total of 88 facilities were identified. The health care providers at these facilities were then interviewed to gauge the available resources and services. For the purpose of this study, only facilities higher than primary health centres offering inpatient care were considered. Eleven of these facilities were thus excluded. Data from remaining 77 were analysed.

Results: Most facilities assessed were private hospitals (n=56), and the remainder were public (n=21). Thirty-three facilities had adult intensive care units and 48 had neonatal intensive care units. All 77 provided emergency maternal care whereas only 47 provided emergency neonatal care. The availability of specialists was assessed; obstetricians, paediatricians, radiologists and anaesthetists; only 19 facilities had all four. Basic laboratory services were available in all facilities and 51 had capacity for haematologic, renal and hepatic parameters. Blood transfusions were available in 67 facilities. Sixty-nine facilities could perform caesarean sections; however, only 29 could do so within 30 minutes of decision.

Conclusions: This study highlights the vast differences in obstetric services provided by the facilities in northern Karnataka. Although the majority of facilities provided reasonably comprehensive obstetric services, many were lacking in the availability of newborn care. Basic investigations were available in all facilities; however, in order to manage complicated cases, a more elaborate setup is needed. Timely provision of caesarean sections is crucial in preventing many maternal and neonatal morbidities and even mortalities. Though caesarean sections were widely performed, the decision to deliver interval was unacceptably high in many facilities.
Advancing distribution of misoprostol on place of delivery, knowledge, and satisfaction. 

Results: There were 1826 estimated deliveries during the seven-month implementation period. A total of 980 women (53.7%) were enrolled and provided misoprostol, primarily through ANC (78.2%). Uterotonic coverage rate of all deliveries was 53.5%, based on 97.7% oxytocin use at recorded facility vaginal births and 24.9% misoprostol use at home births. Among 550 women interviewed postpartum, 87.7% of those who received misoprostol and had a home birth took the drug. Sixty-three percent (63.0%) took it at the correct time, and 54.0% experienced at least one minor side effect. No serious adverse events reported among enrolled women.

Conclusions: The program was moderately effective at achieving high uterotonic coverage of all births. Coverage of home births was low despite the use of two channels of advance distribution of misoprostol. Although ANC reached a greater proportion of women in late pregnancy than home visits, 46.3% of expected deliveries did not receive education or advance distribution of misoprostol. A revised community-based strategy is needed to increase advance distribution rates and misoprostol coverage rates for home births. Misoprostol for PPH prevention appears acceptable to women in Liberia. Correct timing of misoprostol self-administration needs improved emphasis during counseling and education.

P0093 CHANGING TRENDS IN USING FAMILY PLANNING METHODS IN BAUCHI STATE, NIGERIA

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Objectives: Though, knowledge of family planning (FP) is widespread in Nigeria, only 15% of currently married women use a FP method with 10% using a modern method and unmet need of 16%. Injectable contraceptives remain the most popular contraceptive method, used by 3% of currently married women (NDHS 2013). Household Survey using LQAS conducted in Bauchi in April 2014 found 7.2% of women use FP method with only 4.7% using modern contraception and 1.2% using injectables, and unmet need of 34.7%. The objective of this study is to assess any change of trends in use of FP methods in Bauchi state, Nigeria.

Method: Prospective study that used community and facility interventions to improve quality and increase access and utilization of FP methods. This included facility improvement, training, provision of equipment, and awareness creation. Utilization of short and long term contraceptives and contribution of each to overall Couple Years of Protection (CYP) was tracked between 2009 and 2014.

Results: Out of 3,188 CYP recorded in 2009, injectables accounted for 70.9% (2,260), followed by pills, IUCD and implants comprising 21.6% (690), 7.5% (238), and 0.0% respectively. All methods recorded significant increase in contribution to CYP from 2009 to 2014 with Injectables from 2,260 to 14,975; pills from 690 to 4,173; IUCD from 238 to 5,640; and implants from 0 to 18,981. Of 43,769 CYP recorded in 2014, implants topped with 43.4% (18,981), followed by injectables 34.2% (14,975), IUCD 12.9% (5,640), and pills 9.5% (4,173) respectively. Short term methods dropped from 92.5% to 43.7%, while long term increased from 7.5% to 56.3% in 2009 and 2014 respectively.

Conclusions: Community and health facility interventions improved access and utilization with changing trends of family planning methods in Bauchi state, Nigeria.

P0094 IMPROVING THE QUALITY OF FAMILY PLANNING SERVICES IN BAUCHI STATE, NIGERIA

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Objectives: Bauchi State has maternal and child health outcomes that are among the least favorable in Nigeria. Use of modern contraception is as low as 4.7% with unmet need of 34.7% (LQAS April 2014). Health care services lack coordinated quality assurance systems. Innovative approaches to improve quality of family planning services are needed to increase access and utilization. The aim of this study is to assess whether use of Standard Based Management and Recognition (SBM-R) approach can improve compliance with set performance standards for the provision of family planning services in secondary health facilities of Bauchi state, Nigeria.

Method: Prospective cohort study design through SBM-R approach institutionalized in secondary health facilities of Bauchi state. Base-line and three follow-up assessments to assess compliance with FP standards were conducted between 2010 and 2013. Interventions that included facility improvement, capacity building, and provision of equipment and job aids were implemented to address gaps identified during the assessments.

Results: Baseline assessment conducted in 2010 showed performance scores of 12% for family planning (FP) service, 8% for health facility management (HFM), 27% for drug supply management (DSM), 9% for infection prevention (IP), and 6% for behavior change communication (BCC). Overall, the quality of services in 2013 has improved significantly with compliance with the set performance standards reaching an average of 88% in FP, 78% in HFM, 73% in DSM, 75% in BCC and 82% in IP respectively.

Conclusions: Use of SBM-R approach has led to significant improvements in compliance with set performance standards, resulting in improvement of quality of FP services. Further collaboration with government and agencies will be needed to scale the use of SBM-R to primary health facilities to improve quality of FP services.

P0095 ESTABLISHING EMERGENCY OBSTETRIC AND NEWBORN CARE CONTINUOUS MEDICAL EDUCATION PROGRAMMES IN COMPREHENSIVE EMOC HOSPITALS IN ABUJA NIGERIA

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Objectives: Following successful implementation of competency based Emergency Obstetric and Newborn Care (EmONC) training in Comprehensive EmONC hospitals from 2011–2014, under the “Making it Happen” programme, skills training rooms were established in 8 of 12 CEmONC hospitals in Abuja Nigeria to ensure that knowledge and skills are sustained. Continuous medical education (CME) coordinators were trained and supported to conduct regular EmONC training sessions for health care providers (HCP). The frequency, content and participant satisfaction with CME sessions were monitored, lessons learnt in setting up skills training rooms and experience of the CME coordinators in organizing CME sessions were explored and documented.

Method: CME sessions were organized in the skills rooms each month for 10–15 skilled health workers per hospital. Topics from the EmONC training package were taught using short lectures, simulations, hands-on training workshops and videos. Each participant provided feedback through self-administered forms at the end of each CME session. CME activities in each hospital were monitored for 1 year. At the end of the follow-up period in-depth interviews and key in-
formant interviews (KII) were conducted with the Hospital Management Board (HMB) staff, CME coordinators and Medical Directors of the CEmONC facilities to explore their experience of the programme.

**Results:** 498 HCPs participated in 31 CME sessions. The most frequently skills taught were breech vaginal delivery, shoulder dystocia, twin delivery and cord prolapse. 110 (22%) completed feedback forms and found the sessions very useful (mean rating 4.6/5, SD 0.6). Participants associated the sessions with improved confidence in managing obstetric emergencies.

Nine KI interviewed reported that participants acquired practical hands-on experience which contributed to improved confidence and responsiveness to obstetric emergencies. Heavy workload and frequent staff redeployment were common barriers to full participation. They recommended that allocation of CME points and refreshments will facilitate regular participation at CME sessions.

**Conclusions:** Functional EmONC skills rooms were successfully set-up in 8 CEmONC facilities in Abuja, Nigeria. Health care providers found CME sessions very useful in improving and retaining skills. The skills rooms/CME sessions were highly appreciated by all stakeholders (hospital/labour ward managers and senior clinicians). Committed CME coordinators can sustain these with support from the HMB. Skills rooms can be used to update skills of newly deployed labour ward staff, thereby minimizing the impact of frequent staff transfer on the quality of EmONC provided.

Hospital based mandatory EmONC CME sessions linked with CME points can potentially improve confidence and practice.

**P0098**

**KNOWLEDGE OF FAMILY PLANNING METHODS AND CURRENT USE AMONG WOMEN AND MEN IN BAUCHI STATE, NIGERIA**

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**Objectives:** The use of family planning (FP) is recognised as one of the strategies of reducing maternal mortality. Bauchi State has one of the highest maternal mortality ratios in Nigeria with a Total Fertility Rate of 8 and an unmet need for FP of 16%. The aim of this study is to determine association between knowledge of family planning methods and service utilization among women and men in Bauchi state, Nigeria.

**Method:** A community based cross-sectional study was conducted in April 2014 on a randomly selected sample of 380 women of reproductive age (15–49 years old) with a child 0–59 months old and 380 men aged 15–59 years old with a child 0–59 months old using Lot Quality Assurance Sampling (LQAS) technique in Bauchi State. Multistage sampling technique was employed to select the study participants. A pre-tested structured questionnaire was used to collect quantitative data. The statistical component was carried out using SPSS 17.0 statistical software.

**Results:** Overall, 87% (male 89%, female 84%) knew about the possible occurrence of complications. Respondents mentioned at least two danger signs during pregnancy in 63% of cases; during labor and delivery in 61%; and during postpartum in 47% respectively. The signs commonly reported were vaginal bleeding after delivery (56%), prolonged labor (43%). In total, 66% of respondents mentioned at least two newborn danger signs. Fever (54%) and difficulty or inability to suck (48%) were the most commonly mentioned signs. Male respondents were more likely to mention a health facility where to seek obstetric care than women (99% vs. 77%, p < 0.0001).

**Conclusions:** Knowledge about danger signs of pregnancy, delivery and postpartum is relatively low among women and men in Bauchi state. Male respondents were found to be more knowledgeable when compared with female respondents. Thus, provision of information, education and communication targeting women, men, family and the general community on danger signs of pregnancy and childbirth and associated factors is recommended.

**P0099**

**ENQUIRY INTO THE SOCIO-CULTURAL BARRIERS ASSOCIATED WITH MATERNL AND PERINATAL MORTALITY AND MORBIDITY FROM Ruptured UTERUS IN ABAKALIKI NIGERIA**

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**Objectives:** To determine the incidence, morbidity and mortality, and the socio-cultural factors associated with rupture of the pregnant uterus.

**Method:** A 5 year retrospective review of cases of ruptured uterus and an enquiry into the socio-cultural factors. Data were collated and analyzed with Epi-info statistical software. P-value < 0.05 at 95% Confidence Interval (CI) was taken to be statistically significant.

**Results:** The incidence of uterine rupture was 1 in 83 deliveries. Occurrence was commonest among uneducated (78; 67.2%), unbooked women (110; 94.8%) that were para 2–4 (84; 72%). Major causes were prolonged obstructed labour (104; 89.7%) and injudicious use of oxy-
Objectives: The Non-pneumatic Anti-Shock Garment (NASG) is an emerging technological device that can be used as a first aid tool for shock related to obstetric haemorrhages. NASG stabilizes the woman to survive transport to a facility where she can receive proper emergency treatment. This implementation research study aims to provide learning on how to introduce, implement and operationalize the use of NASG in rural Tanzania.

Method: Eight districts, already receiving maternal, newborn and child health (MNCH) interventions through Ifakara Health Institute’s EMPOWER maternal health project, were selected to also receive NASGs. 288 health facilities were involved of which 6 were district level referral hospitals, 12 were health centres, which provide comprehensive emergency obstetric care (CEmOC), and 270 dispensaries. A staged approach was used by first introducing NASGs only to district hospitals and CEmOC health centres for the first 3 months of programme before introducing NASGs to all facilities. All MNCH health providers were trained on the use of NASG (application, safety, removal, cleaning and folding).

Results: In the first three months, 24 women received the NASG. 20 women survived haemorrhage shock and 4 deaths were recorded. Analysis of the 4 deaths revealed no association with NASG application, but rather system-related factors and delays in applying NASG. Workplace relationships and trust were noted to cause delays in NASG application to patients. These findings were used to correct the situation and prepare the system to be ready for a massive implementation of NASG.

Conclusions: A staged introduction of NASG is important to provide contextual information to enhance implementing a new technology into a health system and to accelerate system responsiveness to implementation challenges when taking the innovation to scale in a district health system.

Method: A transport and communication assessment tool was developed and data collected from 269 health facilities from 8 rural districts in Tanzania. Information gathered included availability of different types of transport for emergency obstetric referrals, cost of transport, availability of phone communication, cost of phone communication, bearer of transport and communication cost and readiness of the referral system to manage obstetric emergencies.

Results: 84% of the study facilities are located in areas with mobile phone signal from at least one of the mobile phone service providers. About 94% of health facilities had at least one functioning phone, either mobile or landline. Of these phones, 75% were owned by health providers, and 75% of all phones have the talk time recharge to the health providers themselves; while 21% were recharged by other non-government organizations. Only 6% of all health facilities had access to vehicles designated as ambulance. 4% and 5% of referral transport services relied on the use of normal motorcycles and bicycles respectively.

Conclusions: Despite efforts of government and health sector partners in Tanzania to improve quality of maternal and newborn care, management of obstetric emergencies continues to be hampered by a lack of transport and communication for obstetric referrals. As a result, preventable maternal deaths due to obstetric complications will continue to disproportionally contribute to overall maternal death in the country.
**Conclusions**: In the demand side intervention (baby package) district the rapid increase in IBRs was accompanied by improvements in health outcomes implying that health services rose to the challenge, but these plateaued and the question of sustainability once the incentive is removed remains. In the supply side intervention (CE-MONC) district, increases in IBRs imply that when services improved more women used the HC for birth. Greater improvements in MNH outcomes and more sustainable capital investments favour the supply side intervention. Nevertheless, high initial costs may make this strategy prohibitively expensive for many developing countries.

**P0102 FACTORS INFLUENCING FACILITY-BASED DELIVERY IN RURAL HAITI**

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**Objectives**: Haiti has the poorest women’s health indicators in the western hemisphere, with a maternal mortality ratio of 380 per 100,000 live births according to WHO in 2013. A key strategy used to improve maternal health outcomes worldwide is to increase facility-based delivery. Yet despite the identification of this effective strategy, Haitian women continue to deliver at home, with facility-based delivery occurring in only 37% of births. Interventions often fail to adequately address the complex factors influencing location of delivery. We performed this study to understand factors influencing decision-making in location of delivery for Haitian women.

**Method**: Women in a health facility waiting area in Lascahobas, Haiti were randomly selected to participate. They were individually interviewed using a mixed-method semi-structured interview tool regarding pregnancy and delivery decision-making and experiences. Interviews were audiorecorded, transcribed, translated, and analyzed using Epi Info 7 and NVIVO 10.1.

**Results**: Of eighty women interviewed, 57% of deliveries were facility-based. Limited education and insufficient income for medical care correlated with higher risk of home delivery (RR 1.53 and 1.60). Logistical barriers to institutional delivery included cost, transportation, and time. Other considerations included lack of doctors and supplies and disrespectful care. The greatest motivator for institutional delivery was complication risk. Health professionals were highly influential in delivery location decision-making. 86% desired facility-based delivery next pregnancy, and 75% who delivered at home thought it was a poor decision. Women recommended incentives, community education, adequate staffing, and respectful care as strategies for facility-based delivery.

**Conclusions**: Barriers to facility-based delivery in Haiti are multi-layered, including economic and infrastructural limitations, cultural and societal factors. Despite these, women express a widely shared desire to deliver in the safe environment of a health facility, suggesting that Haiti is in transition from traditional to modern birthing practices. There is a need for nuanced, targeted programming addressing tangible and intangible contributors in order to influence women’s delivery location in Haiti.

**P0103 ADVANCE DISTRIBUTION OF MISOPROSTOL FOR THE PREVENTION OF POSTPARTUM HEMORRHAGE IN SOUTH SUDAN**

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**Objectives**: To determine if high uterotonin coverage can be achieved in South Sudan through a facility- and community-focused postpartum hemorrhage (PPH) prevention program.

**Method**: The program was implemented from October 2012 to March 2013. At health facilities, active management of the third stage of labor (AMTSL) was emphasized. During prenatal care and home visits, misoprostol was distributed to pregnant women at approximately 32 weeks of pregnancy for the prevention of PPH at home births. Data on uterotonin coverage and other program outcomes were collected through facility registers, home visits, and postpartum interviews.

**Results**: In total, 533 home births and 394 facility-based births were reported. Misoprostol was distributed in advance to 787 (84.9%) pregnant women, of whom 652 (82.8%) received the drug during home visits. Among the women who delivered at home, 527 (98.9%) reported taking misoprostol. A uterotonin for PPH prevention was provided at 342 (86.8%) facility-based deliveries. Total uterotonin coverage was 93.7%. No adverse events were reported.

**Conclusions**: It is feasible to achieve high coverage of uterotonin use in a low-resource and postconflict setting with few skilled birth attendants through a combination of advance misoprostol distribution and AMTSL at facilities. Advance distribution through home visits was key to achieving high coverage of misoprostol use.

**P0104 EVALUATION OF THE EFFECTS OF STANDARDS-BASED MANAGEMENT AND RECOGNITION (SBM-R) INTERVENTION ON THE QUALITY OF MATERNAL AND NEWBORN HEALTH CARE SERVICES IN ETHIOPIA**

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**Objectives**: The aim of the study was to evaluate the effects of the SBM-R intervention on the quality and utilization of MNH services, including the provision of respectful maternity care, in health facilities in Ethiopia.

**Method**: The evaluation employed a post-only, quasi-experimental study design, intervention and comparison groups of health facilities, and used mixed (both qualitative and quantitative) methods. The study included 16 health centers and six hospitals for intervention and comparison with one to one ratio. Intervention and comparison sites are located in the same regions. A total of 241 Ante-natal care, 238 labor and delivery, 228 post natal provider client interactions equally distributed between intervention and comparison sites were observed.

**Results**: Skill in providing ANC, labor and postnatal care showed providers in the intervention sites demonstrated a higher performance in provision of ante-natal care compared to comparison sites as evidenced by conducting screening tests properly (93% vs. 67%), counseling on birth preparedness (58% vs. 46%), provision of preventive treatment (60% vs. 46%), care during labour (82% vs. 69%), and infection of prevention practices (92% vs. 89%). Appropriate utilization of partograph showed a smaller difference (78% vs. 73%). Providers
also performed significantly higher in 2 out of 3 routine post-partum care standards. In terms of facility readiness the SBMR interventions sites fared better overall.

Conclusions: The evaluation showed providers in SBM-R implementing facilities demonstrated superior skills compared to those providers working in non-SBM-R implementing facilities. SBM-R supports and or complements government initiatives and other QI approaches. Majority of managers and supervisors mentioned SBMR can be scaled up with minimal or no support however they also pointed out that staff commitment, clear roles and responsibilities are crucial for a successful scale-up.

P0105 COMMUNITY-BASED DISTRIBUTION OF MISOPROSTOL FOR PREVENTION OF PPH AND EFFORTS TO SCALE UP IN BANGLADESH

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Objectives: (1) To access the effectiveness of using Government and NGO field workers at the community level in distribution misoprostol tablet. (2) Ensuring their appropriate use of misoprostol tablet by immediate postpartum women.

Method: Eight sub districts (Upazila) of Tangail district were selected for the distribution of misoprostol tablets. The project interventions included the following: orientation of the district- and upazila-level managers and facility-based service providers; training of the field workers and their supervisors; identification and registration of pregnant women at or after 32 weeks education of pregnant women, family members of the pregnant women, and community members; distribution of misoprostol tablets to the pregnant women; monitoring and supervision of the field workers; and follow-up by the field workers with clients who had received misoprostol tablets.

Results: Analysis of the project reports revealed that distribution of tablets across intervention areas throughout the project period was satisfactory. Among the 12,961 out of 19,497 registered pregnant women who received misoprostol tablets by June 2009, 11,764 women had given birth, and the remaining 1,197 pregnant women had not yet done so. Findings showed that 92% (9,228 out of 10,040) of pregnant women who received misoprostol tablets and had a home birth used the misoprostol tablets after delivery of the baby to prevent post delivery bleeding. The study found excellent compliance regarding use of the three tablets at the same time.

Conclusions: Most of the field workers and supervisors interviewed indicated that the nearby referral hospitals are ready (i.e., have trained providers, equipment, and supplies) to provide referral services in case any complications from misoprostol use arise. The misoprostol program should be continued and expanded to other parts of the country, to help achieve Millennium Development Goal (MDG) No. 5. The training curriculum, leaflet, stickers, and “insert” for the misoprostol tablets need to be reviewed, modified, and updated to address audience concerns.

P0106 CHAMAS FOR CHANGE: HOW A COMMUNITY-BASED MODEL OF PEER SUPPORT CAN IMPROVE MATERNAL AND INFANT OUTCOMES IN RURAL KENYA

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Objectives: Worldwide, women and children in poor and rural communities carry the challenges of pregnancy and infancy without supportive relationships in the home or community. Faced with the multiple stresses of violence, poverty, discrimination and rural isolation, it is no surprise that women struggle in the care of themselves and their children. To address this, the Academic Model Providing Access to Healthcare (AMPATH), with the Government of Kenya, launched Chama cha MamaToto, a community-based model of health education and microfinance that groups women together at the start of pregnancy to improve decision-making and behavior change. These groups are facilitated by CHWs.

Method: To evaluate the effect, acceptability, and sustainability of chamas, we compared data from a prospective cohort of women in chamas with a group of matched control women who did not belong to a chama matched for age, parity, and location of prenatal care. This prospective cohort study was carried out among women attending chamas from October 2012–October 2013.

Results: We analysed data for 211 chama women and 115 controls. Compared to controls, chama women were 73% more likely to attend 4 recommended prenatal visits (64% vs 37%, p<0.001), 67% more likely to give birth in facility (84% vs 50%, p<0.001), 75% more likely to breastfeed exclusively to 6 months (82% vs 47%, p<0.001), and twice as likely to receive the recommended homevisit from a CHW <48hrs of birth (76% vs 38%, p<0.001). A trend towards fewer maternal deaths (1.0% vs 1.7%, p=0.042) and fewer stillborn or newborn deaths (2.4% vs 5.2%, p=0.083) among women attending chamas was noted.

Conclusions:Within its first year of operation, this community-based model of care in pregnancy has provided women with the peer-support necessary to increase their uptake of health services for themselves and their children. We have shown an increase in their attendance of 4 prenatal visits, facility delivery and exclusive breastfeeding. Women attending these groups led by CHWs are also more likely to receive a homevisit within 48 hours of birth. A trend towards fewer stillborn, newborn and maternal deaths was noted.

P0107 INTENTIONAL SEARCH FOR MATERNAL DEATHS IN MEXICO: SOCIO-DEMOGRAPHIC DISPARITIES BETWEEN INDIRECT AND DIRECT OBSTETRIC DEATHS

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Objectives: The purpose of this study is to describe the re-classification of maternal deaths using this approach, with particular attention to indirect obstetric deaths and socio-economic disparities as age, education level, and poverty at the municipality level.

Method: We used BIRMM data from 2006–2013. Investigators identified and reviewed supporting clinical and/or administrative documentation for all deaths in women of reproductive age whose deaths were coded to a subset of 46 codes suspected of “hiding” maternal deaths, as well as all deaths coded to the maternal chapter of the ICD-10. Deaths were reclassified as appropriate between four broad groups: direct, indirect, non-maternal, and late maternal (43–365 days). We also included data on poverty at the municipality level and the number of live births each year and used descriptive statistics to compare proportions, means and ratios.

Results: 9,043 suspected maternal deaths were subjected to the review process over the period 2006–2010, and 1,214 (13.4%) were re-classified. There was a 29.1% (from 7,003 to 9,043) increase in the
number of all maternal deaths identified. Over time, direct deaths are declining, but indirect are not. Direct deaths are concentrated in the women who live in the poorest municipalities. As compared to those dying of direct causes, women dying of indirect causes have fewer pregnancies (2.4 vs. 3.0), are slightly younger (24.7 vs. 28.7), are better educated, and are more likely to live in richer municipalities.

Conclusions: The BIRM approach can make correcting maternal death statistics more feasible in settings with limited resources. In Mexico, direct maternal deaths are declining, but remained concentrated among the poorest women. The health system needs to continue to respond to direct causes of maternal death. The growing importance of indirect maternal death is a new challenge and requires rethinking the health system response to maternal mortality and attention to the growing burden of chronic disease in women of reproductive age. In addition, preventive action, especially high-quality family planning, prenatal, and post-obstetric care, are urgently needed.

P0108
SMALL BEGINNINGS, FIRM STRIDES: MATERNAL MORTALITY REVIEWS IN UGANDA

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Objectives: In Uganda Maternal Death Reviews (MDR) are a cornerstone for quality improvement strategies in health facilities. The Uganda Ministry of Health recommends all facilities providing comprehensive emergency obstetric services to conduct MDR and submit these completed forms to the national maternal and perinatal death review committee which would review and develop national recommendation or policy guidelines for action to improve care. The facility committees are expected to use the reports for improving maternity care at the local level. We assessed the uptake and adoption of MDR processes and reporting in Uganda hospitals from July 2013 to June 2014.

Method: All maternal death data are reported from three sources submitted to the Ministry of Health. These were Maternal death reviews forms, weekly death notification and Health Management Information System (HMIS) monthly reports. Reporting rates were estimated from the monthly HMIS records. The MDR form was entered on the National District Health Information System (DHIS2 platform) and analyzed using Stata to establish the common causes of death and factors associated with maternal death. We qualitatively assessed the appropriateness and feasibility of recommendations made by the health facility teams.

Results: Weekly reporting platform reported 468 “suspected maternal deaths”, up from 273 in 2013. Of 1072 maternal deaths reported in HMIS, 345 MDR forms were analysed by the MDR committee. Hemorrhage (41%), sepsis (12%), hypertensive disease (12%) infections unrelated to pregnancy (12%) and abortion (10%) were the major causes of death. Most mothers (48%) were under 25 years of age and Cesarean section births were high (32%). Five health system factors ranked higher than personal factors as contributory factors to maternal death. While most recommendations were non-specific and not action-oriented, they focused on health facility improvements and health worker skills improvement.

Conclusions: Maternal death reviews are steadily being conducted and reported to the National MPDR committee. Hospital committees recognized that identifying the health system factors is a positive step toward formulating a local response. There is need to improve on the development of actionable recommendations and completion of the whole MDR cycle.

P0109
HEALTH PROVIDER EXPERIENCES WITH IMPROVISING CONDOM-CATHETER UTERINE BALLOON TAMPOANDE FOR THE MANAGEMENT OF UNCONTROLLED POSTPARTUM HEMORRHAGE

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Objectives: Data from our multi-country trial, Every Second Matters for Mothers and Babies-Uterine Balloon Tamponade (ESM-UBT), demonstrated that 98% of woman with uncontrolled postpartum hemorrhage (PPH) survived their hemorrhage if they delivered in a facility with pre-packaged condom UBTs, checklists and UBT trained providers (e.g., "on-line" with ESM-UBT). However, woman with uncontrolled PPH that underwent placement of an improvised condom UBT at a facility not on-line with ESM-UBT had a 6-fold higher likelihood of dying than if delivering at an on-line facility. We sought to understand provider experiences with improvising a condom UBT in facilities not on-line with ESM-UBT.

Method: Interviews of providers who improvised condom UBTs for placement in women with uncontrolled PPH were conducted during November and December, 2014. Further interviews will be conducted in May and June, 2015. Interview transcripts were analyzed using standard qualitative methods (NVivo10 QSR International).

Results: 18 interviews, regarding 18 improvised UBT placements at facilities not on-line with ESM-UBT included 14 midwives, three doctors and one clinical officer. Six providers had learned about UBT through word of mouth and 12 described various amounts of prior UBT training. None of the 18 (50%) women with uncontrolled PPH were confused or unconscious at the time of UBT placement. Providers reported varying degrees of PPH facility readiness and described up to 20 minutes of delay caused by gathering materials to emergently assemble a condom UBT. Multiple additional challenges were described. Three of the 18 women died from their PPH.

Conclusions: Providers were able to use locally available materials to assemble condom-catheter uterine balloons in order to manage women with uncontrolled PPH; however delays in assembly at the time of critical need were common. Women with uncontrolled PPH may fare better at facilities that have undergone PPH and UBT training, and are equipped with checklists and pre-packaged UBT kits.

P0110
INSIGHTS INTO MATERNAL MORTALITY IN GEORGIA

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Objectives: Accurate information on the levels and causes of reproductive age mortality is required to improve maternal health, meet the targets set forth by the Millennium Development Goal 5 and ensure that its reduction remains a public health priority. The aim of the study was to study incidence, classification and quality of care of maternal deaths and determine the accuracy of reported maternal deaths for 2012 in Georgia.

Method: A reproductive-age mortality survey (RAMOS) was conducted to identify deaths of women aged 15–49 years from Georgia, in 2012. Sources included all available data from registers, death certificates, and medical records. Verbal autopsies were carried out to ascertain maternal deaths. Maternal deaths identified through the review were compared with the officially reported maternal deaths for the same period.

Results: A total of 23 (2.6%) maternal deaths were identified out of 881 female deaths of reproductive age. Fourteen of these were re-
ported by the official statistics giving an underreporting rate 39% due to deaths misclassification. The 23 cases consisted of 18 (78.2%) direct and 5 (21.7%) indirect maternal deaths. The most frequent causes of direct deaths were obstetric hemorrhage (25%) and puerperal sepsis (25%). Underreporting among late maternal deaths was high. Failures to recognize the severity of the problem at the community level, sub-standard management with lack of risk-appropriate obstetric care were identified as contributing factors to these maternal deaths.

Conclusions: The RAMOS provides solid epidemiological data on major causes of mortality of women of reproductive age. The present study showed that the number of maternal deaths in the civil registries is lower that found using multiple data sources. Evaluation of the quality of maternal mortality data in civil registries is of national importance to capture a full picture of the maternal mortality and improve public health decision-making. More can be done to improve the system of care for high-risk women at facility and population levels.

P0111
IDENTIFICATION AND OPPORTUNE TREATMENT OF THE SEPSIS IN PREGNANCY: SO EASY, BUT SO DIFFICULT

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Objectives: To identify the contributing factors and describe the characteristics of pregnant women who died for sepsis in Antioquia, Colombia in the period 2004–2012.

Method: Retrospective descriptive study, there were analyzed all cases of maternal death from sepsis in the department of Antioquia, Colombia, in the period from 2004 to 2012. Both cases of obstetric and non-obstetric sepsis were analyzed by a committee of gynecologists who have ten years of experience in the analysis of maternal deaths. The judgments regarding clinical care were based on the “Surviving Sepsis campaign” recommendations and other guidelines to treat sepsis in pregnancy. The evaluated critical interventions focused on early diagnosis, appropriate antibiotic treatment, management of septic shock and timely entry to the intensive care unit.

Results: 54 cases were included in the study; 43 women died from sepsis of non-obstetric origin and 11 as the result of pregnancy or postpartum infections. Pneumonia was the leading cause of death. In 100% of cases patient care was not timely. In 61% there was delay to transfer to a higher level of care. The most frequent errors were delay in time to make the correct diagnosis, initiate antibiotic therapy and initiate the management of septic shock. Early termination of pregnancy as resuscitation strategy was delayed in 54% of patients in whom it was considered to be pertinent.

Conclusions:

- Nonadherence to guidelines management is a recognized problem in sepsis care in Antioquia and worldwide.
- The physiological changes of pregnancy induce alterations in clinical parameters, very close to the “normal” cutoff, probably contribute to the failure to recognize sepsis timely.
- The tools that will be designed for the management of sepsis in pregnancy should always include: elements for early recognition, early initiation of antibiotics, taking tests, clinical monitoring, and multidisciplinary teamwork.
- The gynecologists should lead the care for pregnant with sepsis and must have the knowledge and skills to do so. Always think in sepsis.

P0112
POINT OF CARE ULTRASOUND USE FOR THE MANAGEMENT OF POSTPARTUM INFECTIONS IN A TERTIARY CARE OBSTETRICS AND GYNECOLOGY DEPARTMENT IN RWANDA

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Objectives: Maternal mortality has declined in Rwanda; however, sepsis remains a leading cause of severe maternal morbidity and mortality. In addition to standard vitals and point of care labs, ultrasound is an adjunct to the admission evaluation in the tertiary care setting. Few studies describe the use of ultrasound in the setting of sepsis and severe obstetric infection in low resource settings.

Method: We prospective reviewed all patients admitted to the Kigali University teaching hospital (CHUK) for suspected infections from 10/2014 through 2/2015. CHUK is the largest tertiary care teaching hospital. We assessed maternal demographics, presenting complaints prior to ultrasound, ultrasound findings, treatment and maternal outcomes. Pre and post scan diagnoses were analyzed using SPSS.

Results: 386 patients were admitted during the time of the study. Of those, 26 (7%) had symptoms consistent with sepsis/peritonitis. All patients received ultrasounds in the obgyn triage unit. All peritonitis cases followed cesarean deliveries and 25 (96.2%) were referred from district hospitals. Of 23 cases of peritoneal free fluid and thought to be peritonitis as prescan diagnosis, 21 (91.3%) were confirmed peritonitis in post scan diagnosis. A pelvic mass was diagnosed as peritonitis after ultrasound. One peritonitis as prescan diagnosis was later noted to be a hemo-uroperitoneum post scan. Among the 26 peritonitis cases 25 (96.2%) had surgery; 17 (65.4%) recovered and 9 (34.6%) died.

Conclusions: In the setting of sepsis, point of care ultrasound is a valuable tool for assessment and triage of patients who may need immediate operative intervention for abscess drainage or hysterec- tomy. The use of ultrasound at the time of triage evaluation may help avoid delays in treatment.

P0113
H1N1 INFLUENZA PANDEMIC AND MATERNAL MORTALITY IN ANTIOQUIA, COLOMBIA

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Objectives: To evaluate the impact of the H1N1 influenza pandemic on maternal mortality in the province of Antioquia.

Method: The present study was a descriptive, retrospective, cross-sectional study of maternal deaths in Antioquia in 2009 caused by H1N1-related pneumonia. The study formed part of the Epidemiologic surveillance process undertaken by the Health and Social Protection Directorate of Antioquia and the particular healthcare institutions involved in the cases.

Results: In 2009, there were 42 maternal deaths in Antioquia, corresponding to a maternal mortality ratio of 46 per 100 000 live births. Ten deaths were due to pneumonia, 9 of which occurred after the H1N1 outbreak was first reported in early 2009. In 3 cases, the women were confirmed to have H1N1 virus infection, and the remainder fulfilled probable case criteria. The main factors contributing to the deaths were underestimation of H1N1 symptoms, and delays in administration of antiviral medication and in hospitalization.

Conclusions: For the population subgroup of pregnant women in Antioquia, it is crucial to remain alert regarding H1N1 virus infection,
guaranteeing patients adequate monitoring and/or timely administration of immunization, medication, and hospitalization.

**P0114**

**ASSESSMENT OF KNOWLEDGE AND SKILLS OF SKILLED BIRTH ATTENDANTS IN HAITI**

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**Objectives:** To evaluate a cohort of graduates from a skilled birth attendant (SBA) training program in Haiti in order to make recommendations for improved training and clinical performance.

**Method:** We used a testing instrument that includes a 50-question, multiple-choice knowledge test and two emergency skills tests (postpartum hemorrhage and neonatal resuscitation) adopted from the United States Agency for International Development (USAID) Quality Assurance Project (Mutungi et al., 2008). We surveyed the local health facility and completed a 90-item checklist of the predominant working environment. A convenience sample of 30 nurse SBAs completed the knowledge test and, of this cohort, a random sample of 18 completed the skills test. Data collection took place in Hinche, Haiti in July, 2013.

**Results:** On average, participants displayed competencies in alignment with standards for (professional, qualified, registered) midwives for 59% of the knowledge questions, as 34% of the management skills for postpartum hemorrhage, and 39% of the skills required for neonatal resuscitation. The working environment was assessed to be severely impoverished.

**Conclusions:** The competency of a cohort of SBAs in Haiti was comparable to cohorts of maternal care providers assessed in other lower resource countries. In the absence of sufficient numbers of professional, registered midwives, we recommend ongoing and expanded training of SBAs that includes skill enhancement utilizing simulation training and opportunities to refresh emergency skills annually. This research must be considered in the context of the Haitian health care system that is fraught with extreme poverty, lack of basic infrastructure, and a critical shortage of healthcare workers.

**P0115**

**MATERNAL MORTALITY RATIO 2003–2012**

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**Objectives:** The objective of this work is to verify the Maternal Mortality Ratio in the period of 2003 to 2012 in the following regions: the North, the Northeast, the Midwest, the Southeast and the South of Brazil, as well as check the main causes of maternal death according to the International Statistical Classification of Diseases and Related Health Problems – ICD of reported deaths.

**Method:** The work is a transversal retrospective study of consultations of data from the Informatics Department of the Brazilian Health System (DATASUS) from the Brazilian Ministry of Health. The Maternal Mortality Ratio (MMR) was analyzed for the North, the Northeast, the Midwest, the Southeast and the South regions of Brazil as well as the main causes of maternal death according to the ICD of reported deaths in the period of 2003 to 2012, that is, in a period of ten years.

**Results:** In North there was increase MMR that went from 57.17 in 2003 to 62.58 in 2012, in Northeast MMR in 2003 was 63 and also had increase, moving to 65.57 in 2012. In Southeast, MMR in 2003 was 42.16 and rose to 45.88 in 2012, while in Midwest MMR was 53.54 in 2003 and moved to 57.32 in 2012. Eclampsia was main cause of deaths in these ten years in North and Northeast. In all regions in 2012, eclampsia was main cause of maternal death in Brazil. In whole of Brazil, MMR was 52.19 in 2003 and went up to 54.47 in 2012.

**Conclusions:** Eclampsia continues to be the principal cause of maternal death in Brazil, demonstrating, perhaps, prenatal care of inadequate quality. The fact that reports of maternal deaths are being better analyzed may be the cause of the rise in the MMR.

**P0116**

**CRITICAL HELP EARLY FOR WOMEN IN AFRICA – THE CHEWA SYSTEM. THE NEED FOR CRITICAL CARE IN AFRICA**

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**Objectives:** To demonstrate why there is a need for critical care (CCU) in Women’s Health in Africa to tackle maternal mortality. And how the CheWA training system achieved this within 4 days within a central hospital in Africa. The CheWA system including documentation charts will be presented.

**Method:** The CheWA system was introduced within 4 days in November 2013 in a central Malawian Hospital. 19 midwives and clinical officers were trained in the system and learnt bedside to define critical care within their context and manage key conditions with the ethos of prevention, assessment, recognition – and crucially making decisions. This was layered with advanced training in pathophysiology and design of their own guidelines and documentation including a take on the early warning score called ChEWA.

**Conclusions:** There is a need for critical care facilities and training in central units across Africa to help mothers pushed to the brink of their physiology in 3 major conditions – sepsis, haemorrhage and pre-/eclampsia. And this can be achieved easily with little resources. Challenges will be staffing and the political will in-house.

**P0117**

**BIOETHICS OF A MORBID AND ADVANCED AGE MOTHERHOOD – HEALTHCARE GONE TOO FAR?**

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**Objectives:** Although modern medicine has brought solutions to many complex clinical problems, technological advances have allowed people to accept some high-risk health behaviours. Women with life-threatening medical conditions and advancing age now choose to become pregnant, leaving them at a substantial risk of dying as a direct consequence or an accentuation of their condition. Babies, as a result of these pregnancies, are not only at high health risk, often due to prematurity, but are also likely to be brought up without biological mothers. We present 3 cases from our maternity services to highlight morbidity and advanced maternal age motherhood.

**Method:** Case One – Fredreich’s Ataxia. A 26-year old with Fredreich’s ataxia, wheelchair-bound, on parental nutrition with complete dystrophy of all four limbs.

Case two – Cystic fibrosis. A 36 year old with end stage cystic fibrosis, Post-caesarean section developed worsening shortness of breath, severe left ventricular hypertrophy and commenced on non-invasive ventilation.

Case three – Advanced maternal age. A 58 year old, background of egg donor IVF pregnancy in Europe, had a previous history of myocardial infarction, hypertension, diabetes. She presented at 27 weeks with preterm rupture of membranes, developed sub-clinical chorioamnionitis and had a caesarean section.

**Results:** Case one. Due to dystrophy of all four limbs, her husband and carer were responsible for looking after all the baby’s needs. Case two. Her prognosis was poor and would require a heart and lung transplant to improve. Since delivery she did not spend any time with the baby and had to be transferred to a specialist centre.

Case three. Post-operatively she developed uncontrolled hypertension and was commenced on triple anti-hypertensive regime. Due to her age and co-morbidities she was not very mobile, requiring an extended care package to look after her baby at home.
Conclusions: Decisions about women with high-risk co-morbidities conceiving are driven by the concept of “Informed Choices”, originating from principles of autonomy. A debate must open on withholding treatment to morbid and older mothers, when questions of who raises the children rises. When a fetus has a congenital abnormality, mothers get a choice of termination— but who chooses for them if the mother cannot fulfill her duties due to her co-morbidities? The ethics of morbid/older motherhood need to be explored at length and medical ethicists must debate this ethical dilemma, keeping in view sociological and moral impacts on families and the society.

P0118
IMPACT OF COMPREHENSIVE EMERGENCY OBSTETRIC CARE (cEmOC) AVAILABILITY ON INSTITUTIONAL DELIVERY IN RURAL NEPAL

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Objectives: For this prospective quasi-experimental study on the impact of comprehensive emergency obstetric care (cEmOC) expansion in rural Nepal, we employed a pre/post-expansion survey with a convenience sample of postpartum women in the hospital’s catchment area. Our specific aims:
1. Assess the impact of cEmOC implementation on institutional delivery rate through quantitative analysis of delivery locations.
2. Assess the impact of cEmOC implementation on drivers of institutional delivery through quantitative analysis of decisional factors, costs, knowledge of services, and perceived safety and quality of facility-based care.
3. Understand social and contextual factors affecting institutional delivery through qualitative analysis of birth stories.

Method: A convenience sample of women who gave birth in the prior 6 weeks in the catchment area of a hospital in rural Nepal were surveyed before and after expansion to cEmOC. Quantitative results were analyzed using bivariate analysis to identify factors that changed across periods as well as those associated with institutional delivery in both years. We then used backward selection of significant covariates to refine a logistic regression model. Qualitative data was analyzed through immersion crystallization. Analysis was informed by the social contextual model, which illuminates pathways by which social and contextual factors lead to differing outcomes or behavior.

Results: 98 and 133 women were surveyed in 2012 and 2014, respectively. Institutional delivery was significantly higher after cEmOC implementation (OR 7.73, p<0.001). The most significant demographic change was increased monthly income (p<0.001). Logistic regression indicated that post-intervention time period (OR 63.3, p<0.001), belief that hospital is the safest delivery location (OR 37.3, p=0.05), safety as decisional factor (OR 6.1, p=0.4), income (OR 1.27, p=0.01), and land (OR 0.86, p=0.05) predict institutional delivery (R=0.716). Qualitatively, birth stories supported these results and revealed increased awareness of services and birth planning. Family support, transport and gendered responsibilities remained important in both periods.

Conclusions: Institutional delivery rates vastly improved after cEmOC implementation. Perceptions of hospital safety and prioritization of safety increased after cEmOC expansion. Coupled with increased income, these attitudinal changes helped more women achieve institutional delivery through increased birth planning and awareness of higher-level services, suggesting that demand is sensitive to service availability. Changes in perceived importance of institutional delivery also may have increased family support, which qualitatively contributed to institutional delivery in both time periods. Expanding obstetric services may thus increase demand for institutional birth by changing perceptions and in turn influencing behaviors at individual and societal levels.

P0119
ASSESSMENT OF QUALITY OF OBSTETRIC CARE IN PATIENTS WITH SEVERE MATERNAL MORBIDITY, UNIVERSITY REGIONAL HOSPITAL, TRUJILLO, PERU

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Objectives: To assess quality of obstetric care in patients with severe maternal morbidity.

Method: This is a descriptive, retrospective, and cross-sectional study. From 16,448 deliveries, there were 487 cases of severe maternal morbidity, with a prevalence of 2.96% and a ratio of 29/1000 nv. A sample of 183 cases were used for quality assessment by reviewing clinical records and audits of patients, included maternal deaths, attended at University Regional Hospital-Trujillo, Peru, from 2010 to 2014. Quality of obstetric care were assessed by using three methods: the four-delay approach, audits and managerial approach. The last one included three indicators: attitude, aptitude and available resources.

Results: Delay in receiving timely and proper management was found in 43% of medical records. The first and second delay accounted for 29% of patients, and the third delay for 28%, respectively. Suboptimal care was identified in 41% of medical records. But, in the managerial approach, we found 38% cases related to attitude deficiencies, 33% due to inadequate health staff skills, and 28% in relationship with availability of resources.

Conclusions: Quality of obstetric care is suboptimal in a high proportion of cases of severe maternal morbidity. The human factor seems to be the most important for this situation.

P0120
AFYA JAMII: INTRODUCING A GROUP PREGNATAL AND POSTNATAL CARE MODEL IN KENYA

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Objectives: Focused Antenatal Care (ANC) is a pillar of Safe Motherhood strategies worldwide. Endorsed by the WHO in 2002, its focus on 4 ANC visits was introduced in Kenya as a strategy to improve the uptake and quality of health services. Although 92% of women report receiving skilled ANC in their pregnancy, fewer than half attend the 4 visits (47%). The very unfocused way in which focused ANC is delivered, without attention to the challenges faced by health centers, became the focus for change in 2013. We designed and implemented a Group Prenatal and Postnatal Care Model called AfyaJamii—Community Health.

Method: Each woman attending her first ANC appointment is registered into a group based on her expected date of delivery, and provided monthly appointment dates until her infant’s fourth month of life. To provide care jointly to 15–20 women, health providers part-
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Conclusions: Both ML and CORH cadres faced similar challenges to countries in the region. However, in Zambia several components of integration worked to create a highly motivated, locally valued and understood cadre. The mechanisms driving these positive outcomes were a strong training institution, diverse set of “champions”, an ML association, and a regional network. In Kenya, CORHs seemed to struggle to perform c-sections in hospitals as they lacked legal protections and understanding of their new skill set by fellow clinicians. However, their other newly acquired RH skills were highly appreciated and utilized. Lessons from the research should be shared with countries looking to implement a new cadre.

Antenatal and Postnatal Care

P0122
MATERNAL RHD ALLOIMMUNIZATION: A NEW ANTEINAL ANTI-D PROPHYLAXIS

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Objectives: This work provides the prevalence of maternal alloimmunization and the knowledge, attitude and practice with health professionals who assist RhD negative pregnant women during pregnancy and childbirth. We propose routine antenatal anti-D prophylaxis for countries in development at least for the clinical situations where is found high amounts of cell-free fetal DNA to reduce the chance for alloimmunization during pregnancy.

Method: We performed a cross-sectional retrospective study to determine the prevalence of maternal alloimmunization and a subsequent inquiry about knowledge, attitude and practice with professionals in the outpatient pregnancy center of the Instituto de Medicina Integral Professor Fernando Figueira (IMIP), Brazil. The knowledge was considered according the score in three categories: > 80% adequate knowledge; 60–79%, inadequate knowledge and < 60% poor knowledge. The statistical analysis was performed via Epi-Info 3.5.3 for Windows 7. Data are presented as mean + standard deviation if normally distributed or median (range) as appropriate.

Results: A total of 38052 women were assisted in four years and 3652 (9.6%) were blood type RhD negative. The prevalence of alloimmunization was 2% in 2007 and 5.5% in 2010. Most professionals 89.47% recognized the indirect antiglobulin test as the best test to identify alloimmunization during pregnancy and postpartum. The score of knowledge in the practice of health professionals, about childbirth care of a pregnant woman at risk of RhD alloimmunization where less than 80% (inadequate knowledge).

Conclusions: Is important to develop a national clinical guideline based in best practices to improve patient care. This could increase the obstetricians knowledge on RhD prophylaxis and help to recognize risk factors in the medical and obstetric history and properly analyze and request additional tests. A better understanding and education for RhD pregnant women during antenatal care, enhancing the adherence to prophylaxis. We propose RAADP at least for the clinical situations where is found high amounts of cff-DNA so, in the obstetricians knowledge on RhD prophylaxis and help to recognize risk factors in the medical and obstetric history of and properly analyze and request additional tests. A better understanding and education for RhD pregnant women during antenatal care, enhancing the adherence to prophylaxis. We propose RAADP at least for the clinical situations where is found high amounts of cell-free fetal DNA to reduce the chance for alloimmunization during pregnancy.

Evaluation of immunological parameters in Brazilian pregnant women: Low levels of B and NK cells

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Objectives: To determine the hematological count and a im-
TWIN PREGNANCIES: NICE OR OTHERWISE? AN AUDIT OF TWIN PREGNANCIES IN A SMALL DISTRICT HOSPITAL AGAINST THE NICE GUIDELINES 2012–2014

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Objectives: To assess how well the management of multiple pregnancy in the University Hospital of Hartlepool observed the NICE guidelines.

Method: Retrospective study of electronic records and hospital notes of all multiple pregnancies (n=60) booked at Hartlepool who delivered between 11/06/2012 and 31/05/2014. Some women delivered elsewhere/miscarried and so some data was not available; however, where data was available for these patients it was included. Adequate data was not available for some parts of the guideline and so only attendance of scans and gestation/mode of delivery was audited.

Results: Of the 60 cases, there were 44 DC/DA, 12 MC/DA and 3 triplets. 1 was transferred before chorionicity was established. Of the scans (given within the recommended timeframe):

- Dating scan: 83% (equal between DC/DA and MC/DA)
- Nuchal scan: 15.2%
- 20 week scan: 100% (DC/DA) 81% (MC/DA)
- Follow-up scans: 94% (DC/DA) 63% (MC/DA).

Of the deliveries:

- DC/DA twins: 38% delivered between 37 and 38 weeks
- MC/DA twins: 8% delivered between 36 and 38 weeks
- Method: 58% born by C-section, 25% normal vaginal delivery.

Conclusions:

- MC/DA scan attendance is not as high as DC/DA
- Many mothers do not receive nuchal screening since it is not offered locally
- There are many more C-section deliveries than vaginal births
- Some pregnancies have been allowed to proceed past 38 weeks, increasing risk to mother and child.

PARTURIENTS’ AWARENESS AND PERCEPTION OF THE BENEFITS OF BREAST FEEDING IN THE PREVENTION OF INFANT AND CHILDHOOD ORAL AND DENTAL DISEASES

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Objectives: Breastfed babies have a better chance of improved oral and dental health than their counterparts that were artificially-fed. The objective of this study is to assess the knowledge and attitude of postnatal mothers on the benefits of breastfeeding in prevention of oral and dental diseases.

Method: A cross-sectional descriptive survey of 206 mothers attending the postnatal clinic of the University of Calabar Teaching Hospital, Calabar, Nigeria, was conducted. Information obtained included: socio demographic characteristics; duration of breast feeding and when initiated; use of infant feeding formula; antenatal health talk received on use of breast feeding in prevention of childhood oral disorders; reasons for not fully breast feeding baby; and knowledge of specific disorders prevented by breast feeding. The results of the study were discussed with the respondents and specific instructions on the benefits of breastfeeding in prevention of oral and dental diseases given.

Results: Initiation of breastfeeding was within 3 days of birth in 90.3% of mothers. Most mothers breastfed for more than 3 months (94.2%). Infant milk formula was introduced after 3 months by 78 (37.9%) mothers; due mainly to resumption of official duties in 45 (57.7%) cases. Lack of awareness of specific childhood dental/oral disorders prevented by breastfeeding such as tooth decay (p=0.004), snoring (p<0.001) and abnormal jaw development (p<0.001) was statistically significant. Desire to breastfeed baby for longer periods after instruction on specific oral health benefits of breastfeeding was elicited in 180 (87.4%) mothers.

Conclusions: There is a need to improve the knowledge of mothers on the specific benefits of breastfeeding in prevention of dental/oral diseases. Since physicians, nurses, lactation consultants, and other health care professionals are likely to have more opportunity to counsel and educate breast feeding mothers than the dental surgeons, it is important that they are made to know and understand the benefits of breastfeeding as regards oral and dental benefits during infancy and childhood.
P0127
EXPANDING THE USE OF MANUAL VACUUM ASPIRATION FOR INCOMPLETE ABORTION IN SELECTED HEALTH INSTITUTIONS IN YAOUNDE, CAMEROON

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Objectives: Access to, acceptance of, and use of manual vacuum aspiration by medical practitioners in the capital city of yaounde. The effect of manual vacuum aspiration use of an intervention consisting of improving training and providing manual vacuum aspiration equipment to selected hospitals.

Method: Both a retrospective and prospective study. Five tertiary hospitals were selected and the use of manual vacuum aspiration was evaluated to fine out which professional were using this method compared to other method, curretege, misoprostol, in the management of incomplete abortion. Manual vacuum aspirators were then given to each of this centres and a six months after, a surveu was carried out to fine out the preference of this method compared to others in the management of incomplete abortion.

Results: Dramatic increase of the use of manual vacuum aspiration.

Conclusions: This dramatic increase of the use of manual vacuum aspiration further strengthens its expansion for the management of incomplete abortion.

P0128
STUDY OF RISK FACTORS AND MATERNAL AND FETAL OUTCOME IN PATIENTS WITH ABRUPTIO PLACENTAE

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Objectives: Abruptio placenta is a major cause of maternal morbidity and perinatal mortality globally though of most serious concern in the developing world. We hypothesized that in our scenario the rate of abruption is still quite high and also to observe the fetal and maternal outcome of abruptio placentae. The data generated will help to improve maternal and fetal morbidity and mortality by planning prompt management of future cases of placental abruption.

Method: The present study was undertaken at a tertiary care centre with an attached medical college, from Sept 2008 to August 2012. Patients of abruptio placentae were selected from all cases of 28 weeks or greater gestation, presenting with ante partum hemorrhage during the study period. Patients underwent a complete obstetrical clinical history and examination and relevant investigations were performed. Patients were managed according to maternal and fetal condition. Any maternal and/or fetal complications were noted and recorded.

Results: We had 318 cases of abruptio placentae during the study period and incidence being 4.4%. Most of cases were unbooked. Average age was 34.5 years and nearly two third of our patients came from lower socio economic class. Anemia was seen in 96% of patients. There was a 3.5% incidence of maternal deaths and fetal mortality was high at 68%.

Conclusions: A higher than expected frequency of abruptio placentae exists in our setting and the consequences of abruptio placentae for neonatal mortality outcome are alarmingly high. Mass information regarding the importance of antenatal care of pregnant women in a nearby health.

P0129
VITAMIN D DEFICIENCY IN PREGNANCY AND PREGNANCY OUTCOME

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Objectives: The aim of this study is to determine the vitamin D status in pregnancy and to evaluate the effects of daily vitamin D supplementation.

Method: A prospective randomized study at Royal Care International Hospital from 2012 to 2014.

Results: A total of 88 women were recruited at different gestational age, the incidence of vitamin D deficiency about 66%. A single daily dose ranging from 1000IU to 2000IU according to the level of deficiency were given to the patient for six weeks. In our study 34.1% of women had a level below 10 ng/ml.

Conclusions: The maternal vitamin D were significantly higher in the supplemented group. However, even with supplementation, only a small percentage of women and babies were vitamin D sufficient. Further research is required to determine the optimal time and dosing of vitamin D in pregnancy.

P0130
WOMEN’S KNOWLEDGE AND ATTITUDE TOWARDS PREGNANCY IN A HIGH-INCOME DEVELOPING COUNTRY

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Objectives: To determine the knowledge and attitudes among women in a high income developing country regarding pregnancy and antenatal care.

Method: Women who participated in the study were asked to complete a questionnaire. The questionnaire enquired about age, level of education, internet use, marital status, and employment. It also included questions regarding their knowledge of ultrasound, the effects of sexual activity and other exercise during pregnancy, breast feeding and premature delivery. The collected data was subjected to statistical analysis using SPSS.

Results: The total number of women included in this study was 205. 115 (56.1%) women thought that the most important benefit of ultrasound was to discover child abnormalities. Only 75 (36.6%) women thought that regular exercise was not harmful during pregnancy. Of the total respondents 116/205 (56.6%) women thought that sex during pregnancy was harmful to the fetus or did not know. Age (p=0.001), marital status (p=0.001) and working status (p=0.005) were found to significantly affect their knowledge.

Conclusions: The presence of free easy accessible antenatal care facilities does not seem to ensure adequate knowledge about pregnancy among pregnant women. There is need for effective prenatal classes that focus on educating women about issues related to pregnancy and antenatal care.

P0131
PATTERN OF WEIGHT GAIN IN PREGNANCY AS SEEN IN URBAN POPULATION OF A DEVELOPING COUNTRY

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Objectives: To determine the pattern of weight gain in pregnancy as seen in an urban population of pregnant women in Nigeria and assess its impact on neonatal birth weight.

Method: This was a longitudinal study of pregnant women attending antenatal care in Enugu, Nigeria.
Conclusions: Seropositivity did not show any association with syphilis efficiency. Virus seropositivity did not show any association with syphilis.

Methods: Primigravidae gained more weight in pregnancy than multiparous women (11.4±3.2kg vs. 10.2±3.5kg, p=0.02). The overall maternal mean weight gain was 10.7±3.4kg and the mean birth weight of the infants was 3.3±0.6kg. Weight gain in pregnancy decreased as BMI increased. There is a positive correlation between the weight gain in second trimester and neonatal birth weight (r=0.164, p=0.02).

Conclusions: The pattern of weight gain as seen in urban population of pregnant women in Enugu Nigeria is varied. Gestational weight gain especially in the second trimester in addition to the maternal age and number of antenatal visits has positive correlation with the birth weight of infants.

P0132
SEROLOGICAL SURVEY OF SYPHILIS IN AN AFRICAN OBSTETRIC POPULATION: IS IT TIME FOR REAPPRAISAL OF UNIVERSAL ANTENATAL SCREENING FOR SYPHILIS?
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Objectives: To determine the seroprevalence of syphilis in pregnancy in an African obstetric population.

Methods: A cross-sectional survey of 1030 consecutive and consenting antenatal clinic attendees at Aba, Southeastern Nigeria, was carried out over the period 5 June–5 September, 2013. A structured pretested questionnaire was used to collect and record data of the socio-demographic characteristics of the subjects. Blood samples were collected from the subjects and tested for syphilis using Reactive Rapid Plasma Reagin (RPR) test (Teco Diagnostics, USA) and confirmed with a modified Treponema Pallidium Haemagglutination test (TPHA) (Acon Laboratories, USA).

Results: Of the 1030 women tested for syphilis, 15 were RPR reactive and 12 (1.2%) confirmed by TPHA test. Maternal age, parity, educational level attained, marital status and Human Immunodeficiency Virus seropositivity did not show any association with syphilis seropositivity.

Conclusions: Our findings confirm reports that suggest a reduction in the prevalence of syphilis but not its complete elimination in our obstetric population. All our pregnant women should continue to be screened and treated for syphilis despite calls for a reappraisal of the practice of universal antenatal screening for syphilis by some researchers.

P0133
FACTORS ASSOCIATED WITH ANTENATAL DEPRESSION IN PREGNANT KOREAN FEMALES: THE EFFECT OF BIPOLARITY ON DEPRESSIVE SYMPTOMS
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Objectives: This cross-sectional study sought to identify factors associated with antenatal depression in pregnant Korean females, including sociodemographic parameters, social support, social conflict, and bipolarity.

Methods: Eighty-four pregnant women were recruited to complete questionnaires on sociodemographic factors, obstetric history, depressive symptoms, and bipolarity. Depressive symptoms were assessed using the Korean version of the Edinburgh Postnatal Depression Scale. Bipolarity was assessed using the Korean version of the Mood Disorder Questionnaire.

Results: Nineteen participants (22.6%) had positive Mood Disorder Questionnaire scores, suggesting the presence of bipolarity, and were significantly more likely to score high on the Edinburgh Postnatal Depression Scale. Antenatal depression was associated with bad marital communication and marital dissatisfaction.

Conclusions: These results suggest that spousal interactions play a significant role in antenatal depression, and pregnant women with bipolarity may be more depressed than those without bipolarity.

P0134
PREGNANCY OUTCOMES IN NURSES AND NURSING ASSISTANTS
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Objectives: To assess whether work as nurses and nursing assistants during pregnancy increases the risk of adverse pregnancy outcomes.

Methods: This study was prospectively carried out between June 2013 and August 2014. All nurses and nursing assistants who worked at Srinagarind Hospital during the study time frame were approached for recruitment. Data were collected by a self-administered questionnaire. Detailed information elicited from participants included baseline characteristics and underlying disease, occupational characteristics during pregnancy, and pregnancy outcomes. Logistic regression was used as a multivariate analysis to estimate an adjusted odds ratio (OR) and 95% confidence interval (CI) of factors associated with preterm delivery.

Results: This study included 572 pregnancies occurring in 361 participants. Mean age at pregnancy was 29.1 years. Approximately 19.0% of pregnancies had underlying disease. Cesarean section rate was 29.3%. Preterm delivery was reported in 121 pregnancies, accounting for the rate of 21.1%. Pregnancies that complicated with underlying diseases and had rotating shift work carried a higher rate of preterm delivery (30.6% and 22.7%, respectively).

Conclusions: The rate of self-reported preterm delivery among nurses and nursing assistants in this was approximately 20%. Preterm delivery tended to be more common among pregnancies those complicated by underlying diseases and had rotating shift work.

P0135
PREDICTORS AND OUTCOMES OF LOW BIRTHWEIGHT INFANTS IN LUSAKA, ZAMBIA
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Objectives: Low birthweight infants (<2500g) are at increased risk of severe morbidity and early mortality. Data on maternal and obstetric risk factors associated with low birthweight and outcomes for these infants in sub-Saharan African settings are limited. We sought to determine predictors of low birthweight in an urban African cohort and to quantify the degree to which low birthweight infants are at increased risk of adverse outcomes, including stillbirth, Apgar score <7, admission to the neonatal intensive care unit (NICU), very early neonatal death (NDN), and perinatal HIV transmission.

Methods: Our retrospective cohort included singleton and twin pregnancies delivered in Lusaka’s public health system between February 2006 and December 2012. The primary outcome was low birthweight (<2500g). We investigated the association between low birthweight and maternal age, obstetric history, medical history, components of routine antenatal care, multiplicity, and gestational age at delivery using generalized estimating equations (GEE). We also investigated the risk of stillbirth, Apgar score <7, NICU admission, very early neonatal death, and perinatal HIV transmission in low birthweight infants.
infants compared with infants weighing 2.500g or more. Once again GEE modeling was used to account for clustering.

**Results:** Between February 2006 and December 2012, 200,557 eligible infants were included in our cohort. 21,125 infants (10.5%) were <2,500g. Characteristics associated with low birthweight included twin pregnancy (AOR 34.4, 95% CI 28.9–41.0), placental abruption (AOR 5.2, 95% CI: 2.8–9.4), early preterm birth (AOR 6.3, 95% CI: 4.3–9.4), and late preterm birth (AOR 2.2, 95% CI: 1.8–2.7). Low birthweight infants had higher odds of stillbirth (AOR 8.6, 95% CI: 6.5–11.5), low Apgar scores (AOR 5.7, 95% CI: 4.6–7.2), NICU admission (AOR 7.30, 95% CI: 5.11–10.44), and very early NND (AOR 6.2, 95% CI: 3.7–10.3).

**Conclusions:** Approximately 1 in 10 pregnancies in our setting result in delivery of a low birthweight infant, many of whom are born preterm. These infants are at substantial risk of adverse perinatal outcomes, such as stillbirth, NICU admission, and very early neonatal death. Our results suggest an urgent need for early, comprehensive, and high quality antenatal care, including growth monitoring. Improved perinatal management addressing the complications of preterm birth may also improve outcomes for low birthweight infants in setting such as Zambia.

**P0136 TRAJECTORIES OF DEPRESSIVE AND ANXIETY SYMPTOMS IN PERINATAL POPULATION**

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**Objectives:** Literature supports the heterogeneity of depressive symptoms across the perinatal period. However evidence is mostly based on studies composed of women at high risk for experiencing poor mental health. Research on trajectories of maternal anxiety is scarce. The aim of this study is to examine trajectories of depressive and anxiety symptoms in a large community sample of women and to compare demographic, psychosocial, and obstetric characteristics of women across trajectory groups.

**Method:** This is a secondary analysis of the All Our Babies cohort, a longitudinal pregnancy cohort in Alberta, Canada. Participants completed questionnaires from 2nd trimester of pregnancy through to 12 months postpartum was selected (N=1445). Anxiety and depressive symptoms were measured at 4 time points using the Spielberger State Trait Anxiety Inventory and the Edinburgh Postnatal Depression Scale, respectively. Semiparametric group-based mixed modeling was performed to identify the optimal shape of the trajectory, group numbers and the proportion of each group. Models fit were evaluated using the Bayesian Information Criterion. Multinomial logistic regression analysis was conducted to compare characteristics across groups.

**Results:** Five distinct trajectory groups were identified for both depressive and anxiety symptoms including Minimal (consistently low levels of symptoms), Mild (consistently mild levels of symptoms), Antepartum (symptomatic only in antepartum), Postpartum (symptomatic only in postpartum), and Chronic groups (consistently high levels of symptoms). Overlaps between anxiety and depressive symptoms varied from 45% to 67% (p<0.001). Numerous psychosocial and demographic characteristics differed among trajectories of depressive and anxiety symptoms including maternal age, marital status, income, being a recent immigrant, unplanned pregnancy, and a history of infertility.

**Conclusions:** In our community sample, fewer women reported experiencing chronic depression in the perinatal period and patterns and intensity of postpartum depression were different than those seen in high risk populations. This is the first study examining trajectories of anxiety in a large cohort of perinatal population. Future research is needed to confirm the trajectories of anxiety as well as the characteristics’ of women associated with each trajectory. This information can assist with identification of women who may benefit from more vigilant assessment or early intervention to address and ameliorate mental health symptoms for the benefit of mothers and children.

**P0137 RELIABILITY AND VALIDITY OF THREE SHORTENED VERSIONS OF THE STATE ANXIETY INVENTORY SCALE DURING THE PERINATAL PERIOD**

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**Objectives:** The screening for anxiety in obstetric settings has been challenging due to time and knowledge constraints. Brief, valid, and reliable instruments can provide health care professionals with a quick and easy method to assess anxiety. Three six-item forms of the State Anxiety Inventory scale have been constructed. The purpose of this study was to evaluate and compare the psychometric properties of these short versions in the perinatal period.

**Method:** Data were drawn from a longitudinal pregnancy cohort in Alberta, Canada. Internal consistency of the shortened versions was assessed. Confirmatory factor analysis was conducted to estimate and compare indicators of fit during pregnancy and at 4 and 12 months postpartum.

**Results:** All shortened scales demonstrated high internal consistency and reliability, with alphas ranging from 0.81 to 0.85. All fit indices were greater than 0.93, implying a good fit between each model and our data. In the model comparisons, the Marteau and Bekker scale provided a more robust fit to data obtained during pregnancy and the early postpartum period. At 12 months postpartum, the Chian et al. form demonstrated the best fit of the three versions.

**Conclusions:** The shortened scales appear to have acceptable psychometric properties. Brief scales have the potential to provide an economical means of assessing perinatal anxiety and can be considered as equivalent alternatives to the full-scale version.

**P0138 ON THE TRAIL OF MISOPROSTOL IN THE COMMUNITY: A SECONDARY ANALYSIS OF SELF-ADMINISTERED MISOPROSTOL FOR THE PREVENTION OF POSTPARTUM HEMORRHAGE IN UGANDA**

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**Objectives:** Advance misoprostol provision to pregnant women for self-administration has been identified as a promising approach to reduce postpartum hemorrhage (PPH), particularly in home births without skilled birth assistance. This descriptive analysis provides a snapshot of the results when pills are provided for unsupervised self-administration in the community.

**Method:** Using data from a randomized controlled trial of self-administered misoprostol to prevent PPH in Mbale, Uganda, we conducted an analysis of the frequency, location, and timing of study medicine use. In the main trial, misoprostol (600μg) or matching placebo was given to 748 consenting women during antenatal care after the 34th week of gestation. Women were instructed to take the medicine orally for PPH prevention in the event of a home birth. Information on the circumstances of study medicine use was collected during postnatal follow-up, and study medicine packets were tracked.

**Results:** Follow-up information was obtained for 94% (700/748) of women enrolled and 77% of medicine packets were accounted for.
Study medicine was used for 291/299 home births and 106/401 facility births, contributing to a total “uterotonic coverage” (including facility births with oxytocin) of 93%. Among facility users (n=106), nearly half reported taking the tablets instead of routine injectables, citing supply shortages, cost, and preference. Reports of therapeutic use of the study medicine to control heavy bleeding were also documented in both home and facility births. Mistimed administration of tablets before delivery was rare (n=2) and did not result in adverse events.

Conclusions: An in-depth exploration of how antenatally distributed medicine is used in the community suggests this approach may potentially lead to higher uterine coverage in home births as well as in facilities. A range of factors (oxytocin availability, cost, provider knowledge, urgency) appear to influence decisions and behaviors surrounding self-use of the medicine. Reported therapeutic use of the study medicine for excess bleeding highlights another niche at the community level, deserving of further research.

P0139
SERVICE EVALUATION AUDIT OF SMALL FOR GESTATIONAL AGE INFANTS BORN AT UNIVERSITY HOSPITALS OF LEICESTER NHS TRUST: DOES THE USE OF THE NEW UK NATIONAL GUIDANCE IMPROVE IDENTIFICATION OF INTRAUTERINE FETAL GROWTH RESTRICTION?

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Objectives: Small for gestational age (SGA) refers to infants born with birthweight less than the tenth centile. Both constitutionally and pathologically SGA fetuses are at increased risk of perinatal and neonatal morbidity and mortality. It is therefore important to identify this group of infants antenatally to reduce potential complications. Our aim was to ascertain whether using the Royal College of Obstetricians and Gynaecologists (RCOG) risk stratification as recommended in the new RCOG SGA guideline, published in March 21013, will improve detection of fetal growth restriction. We also wanted to evaluate adherence to our trust guidelines on symphysio-fundal height (SFH) measurement.

Method: We performed a retrospective service evaluation audit of 192 patients who delivered singleton infants with birthweight less than 2.5 kilograms, after 37 completed weeks of gestation, at University Hospitals of Leicester NHS Trust between March and August 2013. Data was collected retrospectively from patients’ maternity records and the trust computer systems. Data thus obtained was then tabulated into Microsoft Excel and analysed.

Results: 168 women delivered infants with birthweight below the tenth centile on customised growth charts. Of infants requiring neonatal admission, 83% were below the tenth centile. SFH measurement identified 87 patients with fetal growth concerns. 80 (92%) subsequently delivered infants with birthweight less than the tenth centile.

Of the 168 women, 57 (34%) had risk factors as stated in the RCOG guidance that would trigger referral for fetal growth scans. Only 25 (44%) of that 57 would have been referred based on current protocol used at our unit. In an additional 52 (31%) patients, there were concerns with SFH measurements but no RCOG risk factors.

Conclusions: All women with concerns on SFH measurements should be referred for serial fetal growth scans. The RCOG guidance allowed for better detection of infants at risk of fetal growth restriction compared to our local protocol. Using both SFH measurement concerns in combination with RCOG risk stratification to prompt referral for serial growth scans will further improve detection of growth restricted fetuses.

P0140
PROCALCITONIN MEASUREMENT AS THE QUICK DIAGNOSTIC TOOL OF CAM AND FIRS

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Objectives: Symptomatic chorioamnionitis (CAM) and fetal inflammatory response syndrome (FIRS) are serious neonatal condition. However the diagnoses of CAM by histological study and FIRS by interleukin (IL)-6 measurements are still time consuming. Procalcitonin (PCT) is useful marker for sepsis and the early diagnosis of CAM or FIRS may contribute to improve neonatal prognosis. So the aim of this study is to investigate the usefulness of PCT measurement from umbilical cord blood and amniotic fluid for early diagnosis of CAM and FIRS.

Method: Samples are collected from 35 women who delivered between 22 and 37 weeks of gestation due to preterm labor or PROM. Written informed consents are obtained. Amniotic fluid sampling was performed just before delivery. Umbilical cord blood was collected from the umbilical cord after delivery. CAM was diagnosed by Blanc classification stage II or III and FIRS was defined by cord blood IL-6 higher than 11 pg/ml. An immunoluminometric assay was used to determine PCT and IL-6.

Results: CAM was present in 9 cases (stage II: 7 cases, stage III: 2 cases). FIRS was detected in 6 cases. A statistically higher umbilical cord blood PCT concentration was found in CAM and FIRS (p<0.01).

Conclusions: Umbilical cord blood PCT concentration can be a reliable marker in the diagnosis of CAM and FIRS. The quicker diagnosis of CAM and FIRS can be obtained by PCT concentration measurement than histological examinations or IL-6 measurement. However, amniotic fluid PCT concentration was not an indicator of CAM and FIRS.

P0141
RELATIONSHIP BETWEEN SERUM LEVELS OF D-DIMER AND WEIGHT OF PLACENTA IN THE LATE PREGNANCY

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Objectives: It is well known that coagulation is enhanced during pregnancy and serum levels of D-dimer increase gradually toward the late stage of gestation. The main cause of this increase is thought to be local degeneration of fibrin in the uteroplacental circulation, however, there is few report that proves D-dimer is produced in the placenta. We investigated whether serum levels of D-dimer correlated with placental weight in the late pregnancy.

Method: We enrolled pregnant women who had blood test of D-dimer at 35 or 36 weeks of gestation and delivered within 14 days after the test. The women were divided into three groups; “Control group” is consisted with 59 women with singleton pregnancies who delivered normal birth weight newborns. “FGR group” is consisted with 57 women with singleton fetal growth restriction (FGR) pregnancies. “Twins group” is consisted with 44 women with twin pregnancies. The mean value and standard deviation of placental and FIRS.

Results: The placental weights of these FGR, Control, and Twins groups were 429±95, 578±91, 903±172, respectively. The serum levels of D-dimer were 2.2±1.4, 2.4±1.5, 4.9±3.8 μg/ml, respectively. The serum levels of D-dimer in Twins group are significantly greater than those in the other two groups. The serum levels of D-dimer cor-
related positively with placental weight in Control group (R = 0.40, p < 0.01), and FGR group (R = 0.41, p < 0.01), but did not in Twins group.

Conclusions: The relationships between the serum levels of D-dimer and weight of placenta in the late pregnancy suggest that D-dimer is produced in the placenta. The produced D-dimer in the placenta may affect to serum levels of D-dimer.

P0142
BLOOD LOSS AT DELIVERY AND DIFFERENT DIMENSIONS OF FATIGUE

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Objectives: The objective was to compare five different dimensions of fatigue during the first 12 weeks postpartum in women who had blood loss less than and greater than 700 ml at delivery.

Method: We conducted a single centre prospective longitudinal study of healthy women with a singleton pregnancy in May 2013 - September 2014. Women were included within 48 hours after delivery, and completed the physical fatigue subscale of the Multidimensional Fatigue Inventory (MFI) at inclusion. At follow-up visits after three days, and one, three, eight, and 12 weeks postpartum, they completed the full MFI covering general fatigue, physical fatigue, reduced activity, reduced motivation and mental fatigue.

Results: A total of 182 women completed 12 weeks follow-up; 96 with blood loss greater than and 86 with blood loss less than 700 ml. Physical and mental fatigue scores were significantly higher within the first week postpartum in women with blood loss greater than 700 ml. At three, eight and 12 weeks there was no significant difference. General fatigue, reduced activity and reduced motivation scores showed no significant differences at any given point in the groups.

Conclusions: Heavy blood loss at delivery is associated with increased physical and mental fatigue in the early postpartum period, but after three weeks there is no longer any influence. Heavy blood loss does not cause an increased general fatigue nor does it cause reduced activity and motivation.

P0143
AN AUDIT TO ASSESS THE EFFECTIVENESS OF THE TONGUE-TIE SERVICE AT SUNDERLAND ROYAL HOSPITAL (SRH)

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Objectives: ~10% of babies are born with some degree of tongue-tie – an abnormally short linguinal frenulum that may restrict mobility of the tongue. ~13% of cases presenting with breastfeeding difficulties have tongue-tie as a contributing factor. Frenulotomy is a safe effective procedure that can be performed to relieve symptoms affecting mother and baby. SRH launched a new service to assess and treat tongue-tie in 2014.

The clinic referrals and outcome were assessed to facilitate development of local and regional guidelines and services: particularly as current NICE guidance (2005) is non-specific and requests continuous audit of current services.

Method: Current guideline used to create six standards: 100% compliance with each standard anticipated. 66 post-procedure questionnaires were collected from 12 SRH outpatient clinics 1/10/14- 22/12/14 and used to assess service. Frenulotomy was performed in all patients as part of a structured intervention plan including multiple feeding assessments.

Compliance with the standards was determined. To assist the service evaluation the mothers were encouraged to complete free text comments.

Results: All patients had presented with feeding difficulties.

1. Infants aged less than 16 weeks – 100% of cases.
2. Resolution of latch difficulties – improvement in 77% of women presenting with problems; 88% improvement in cohort.
3. Resolution of breastfeeding discomfort - 86% improvement in women presenting with symptoms; 77% improvement in cohort.
4. Women able to restart breastfeeding – 6/10.
5. Improvement in weight gain – 8/11 cases with poor weight gain a presenting feature had a positive response to the intervention.
6. Questionnaire completion – response rate 61%.

Free text comments: “support amazing”, “quick easy good service”, “very happy”.

Conclusions: SRH offers a midwife-led holistic service incorporating tongue-tie treatment with immediate breast-feeding support and advice, ensuring follow up and support.

The standards were ambitious, but this can be used as a baseline for re-audits with more appropriate standards and enhanced pre- and post-assessment of this service and increased sample size.

Circulating service standards can encourage the increase of regional services and enhanced mother and baby care during tongue-tie management with the ultimate aim to facilitate increased breastfeeding rates. This audit can provide a baseline to monitor improvement, refine current guidelines, and emphasises the importance of audit form completion.

P0144
VAGINAL DELIVERY OF LATE ABORTION AND IUD BY MISOPROSTOL AND ANXIETY RELIEF

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Objectives: a. Saving expense in gynecological & Obstetric practice. We are suffering from so many scarcities in our day to day practice like – 1. Expert Manpower; 2. Money; 3. Time & also 4. Religious obstacle.
b. Misoprostol has the advantage over other previous method. It requires no anaesthesia require only nurses and instruction. Patient remain ambulant with daily activities, only require hemoglobin, ABO & Rh- typing and coagulation profile for patients fitness. Some prefer cesarean section in dead fetus also.

Aims of our study was to see easy vaginal delivery of dead fetus by misoprostol.

Method: It is a retrospective study, was done in the department of Gynae & Obs. General Hospital Sirajanj from 12th May 2012 to 11th April 2013. Patient no. 92 of which 88 were delivered with misoprostol 50 µg start vaginally some required again same dose after 6 hours, and some require higher dose according to parity, duration & response of patient.

Results: A p-value of < 0.05 was considered as significant.

Patient parameters like pulse, heart rate, blood pressure & hemoglobin status were not statistically significant between groups. Patient’s satisfaction was significantly high about 100% by misoprostol.

Conclusions: With misoprostol patient’s satisfaction were 100% without affecting haemo-dynamic stability and vaginal delivery. Misoprostol, Late Abortion & IUD Delivery, anxiety & psychological upset relief, 100% patient’s satisfaction.

P0145
AUDIT OF USE OF ANTI-D IN RHESUS NEGATIVE PREGNANT WOMEN AT NOBLE’S HOSPITAL, ISLE OF MAN

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Objectives: The audit was conducted to evaluate the use of Anti-D
immunoglobulin in non-sensitised RhD-negative pregnant women in following categories: post-suffering of potentially sensitising events, during routine antenatal Anti-D prophylaxis (RAADP) at 28-week gestation and post-delivery of Rh-positive baby.

Method: A retrospective review of case notes from all patients with Rh-D antigen negative was used to collect data. All case notes were documented between January 2012 and December 2012 inclusive at Noble’s Hospital, Isle of Man, United Kingdom. Audit was standardised as per RCOG and NICE guidelines, which state that RAADP should be offered to all non-sensitised RhD-negative women. Patients who suffered from miscarriage, ectopic pregnancy and had pregnancy terminated were excluded from the study.

Results: Out of 840 delivery cases analysed, 134 (16%) cases were found to be Rhesus-negative: 127 (95%) of these patients received anti-D prophylaxis during the antenatal period, with only 106 patients receiving anti-D injection at recommended 28–30 week time-point. 108 (85%) patients have BMI <30 with only 59 (46%) cases documented for consenting for RAADP. 35 patients were exposed to potentially sensitising events, with 22 cases of antepartum-haemorrhage. Post-delivery, 68 babies out of 127 delivered by Rh-negative mothers have RhD-positive blood group and 3 of these mothers had received an extra dose of anti-D due to excess feto-maternal haemorrhage.

Conclusions: 95% (127/134) of non-sensitised RhD-negative pregnant women had received Anti-D Ig, and 83% (106/127) of them had received Anti-D Ig between 28–30 weeks gestation. 15% (19/127) RhD-negative pregnant women who received Anti-D Ig are BMI >30. For women with BMI >30, intravenous administration of Anti-D is recommended. RhD-negative women in whom cell salvage have been used should receive at least 1500 IU anti-D and sample collected for estimation of FMH 30–45 minutes after reinfusion in case more anti-D is indicated. Documentation of verbal consent for anti-D injection needs improving and the local guideline of Anti-D prophylaxis needs to be updated.

P0146
UTILIZATION OF MATERNAL HEALTH CARE SERVICES AND THEIR DETERMINANTS IN RURAL KARNATAKA STATE, INDIA

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Objectives: This study aimed to describe the patterns and determinants of routine and emergency maternal health care utilization in rural Karnataka State, India.

Method: Twenty three focus groups and twelve interviews were conducted in rural Karnataka State in 2012–2013. Four focus groups were held with Auxiliary Nurse Midwives and staff nurses, four with Accredited Social Health Activists, three with community leaders, two with male decision-makers, three with female decision-makers, six with women of reproductive age, and one with medical doctors. One-to-one interviews were held with medical doctors (N=2), private health care providers (N=2), health administrators (N=2), district health officers (N=2), and obstetricians (N=4). All discussions were audio recorded, transcribedverbatim, and translated for thematic analysis using NVivo 10.

Results: Most women in the focus groups reported attending routine antenatal care, for an average of three visits during pregnancy, and more frequently if high-risk. Antenatal care was typically delivered at the periphery by non-specialised community-based providers. Women reported that they sought care if they experienced any danger signs in pregnancy. Postpartum care was reportedly rare and was mainly sought for purpose of neonatal services. Factors that influenced women’s care-seeking in pregnancy and postpartum included their limited autonomy within the family and society, poor access to transport services, perceived poor quality of health care services and providers, and low socio-economic status.

Conclusions: South Indian communities reported regular use of health care services during pregnancy; however, barriers to access were prominent. Postpartum care continued to be rare. In spite of new government programmes and increased availability of maternity care services, some women still delayed or deferred accessing health services. More efforts should be made to address the reported barriers that persist to maternity care services for women in rural Karnataka.
BARRIERS AND FACILITATORS TO HEALTH CARE SEEKING BEHAVIOURS IN PREGNANCY IN RURAL COMMUNITIES IN SOUTHERN MOZAMBIQUE

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Objective: In countries such as Mozambique, where maternal mortality remains high, the greatest contribution to mortality comes from the poor and vulnerable communities in remote and rural areas with limited access to health care services. This study aimed to describe women’s health care seeking practices during pregnancy, as well as barriers to accessing timely appropriate care, in Maputo and Gaza provinces, southern Mozambique.

Method: The study followed an ethnographic design. Qualitative data were collected through in-depth interviews and focus group discussions with women of reproductive age, including pregnant women, household-level decision makers (partners, mothers and mothers-in-law), traditional healers, primary health care providers (both facility and community-based), and community leaders. Data analysis was performed by thematic analysis using NVivo 10.

Results: Antenatal care was often sought for the purpose of opening the antenatal record; women without an antenatal card fear mistreatment during labour. Antenatal care was also sought when women experienced discomfort or complications: headache, flu-like symptoms, and body pain. Male partners consider lower abdominal pain as the only symptoms requiring care. In addition, husbands discouraged women from revealing their pregnancy early in gestation. The decision-making process can be complex and time-consuming in the absence of a matron or family member. Traditional healers provided services in the community, but they were highly discouraged particularly when treatment involves bitter medication.

Conclusions: Women do seek antenatal care at health facilities; however there are additional factors that prevent prompt care-seeking for obstetric emergencies and delivery, namely unfamiliarity with warning sings among pregnant women and partners, discouragement from revealing pregnancy early in gestation, and complex and timely decision-making processes in the advent of an emergency. Ensuring that pregnant women are followed up by matrons and community health workers as well as regular antenatal care could enhance the likelihood of prompt referrals due to their decision-making power and authority in these communities.

RANDOMIZED CONTROLLED STUDY OF NUTRITIONAL SUPPLEMENT BEVERAGES WITH AND WITHOUT PROBIOTICS TAKEN DURING THE THIRD TRIMESTER OF PREGNANCY: EFFECTS ON MATERNAL AND FETAL OUTCOMES AND FETAL IMMUNE STATUS

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Objective: Adequate nutrition during pregnancy is essential for a healthy pregnancy and to reduce the risk of adverse fetal outcomes. Nutritional supplements during pregnancy may have positive effects on maternal and birth outcomes and the infant’s developing immune system. The objective of this study was to evaluate the effects of third-trimester use of maternal nutritional supplement beverages formulated both with and without a probiotic mixture of Lactobacillus rhamnosus (CGMCC 1.3724) and Bifidobacterium lactis (CNCC 1-3446) on maternal health, fetal/infant growth and health.

Method: Healthy, women in the third trimester of pregnancy were enrolled in this double-blind, randomized controlled study conducted at the Community Hospital of Muntinlupa City, Philippines. Women were randomly assigned to receive a daily nutritional supplement (S, n=78); the same supplement with probiotics (S pro, n=78), or no supplement (no-S, n=77) for the duration of their pregnancy. Maternal health outcomes (physical exam, weight gain, GI tolerance, morbidity) were assessed at gestational months 6, 7, 8, and delivery; fetal health and development was assessed by fetal ultrasound, birthweight, APGAR scores, immune status, at delivery. Infant growth was measured for 1 year.

Results: 233 women (80%) completed the study. Maternal mean weight gains in the third trimester were in S: 5.00±2.69, S pro: 4.55±2.25 and no-S: 4.62±2.16 kg. Infants were born at approximately 39 weeks gestation, healthy with normal APGAR scores. Mean birthweights ranged from no-S: 2.88±0.44 kg to S: 2.93±0.47 kg. No statistically significant differences were found between S and S pro for maternal morbidity, fetal biparietal diameter and cord blood immune status. Infant mean weight at 12 months was similar between S and S pro; weight was higher in the combined supplement groups compared with the non-supplemented group (P<0.001).

Conclusions: Nutritional supplement beverages with and without probiotics taken during the last trimester of pregnancy were well tolerated and did not adversely affect pregnancy outcomes or fetal growth and development. Supplementation with probiotics did not affect neonatal innate immunity. Additionally, beneficial effect of maternal supplementation on infant growth lasted along the first year of life. Future studies are needed to examine the potential benefits of nutritional supplements given preconception, earlier in pregnancy, and in high risk pregnancies.

PHYSICAL EXERCISE PATTERNS AND FACTORS RELATED TO EXERCISE AMONG PREGNANT WOMEN IN BRAZIL

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Objective: The aims of this study were to assess the level of physical exercise during pregnancy and to examine the factors associated with the practice of exercise during pregnancy.

Method: This is a cross-sectional study held in Campinas - São Paulo, Brazil from October 2011 to February 2014. 1,279 postpartum women who lived in Campinas and had a hospital birth, single pregnancy, and live newborn were recruited within 12 to 72 hours postpartum. They were interviewed about their socio-demographic data and obstetric history and were administered self-report questionnaires about physical exercise during pregnancy. Data on the maternal and newborn outcomes were collected from medical records. To analyze factors related to the practice of exercise a multiple logistic regression was used with odds ratio (OR) and corresponding 95% confidence interval (CI).

Results: Prevalence of physical activity during pregnancy was 20.1%. Half of the women interrupted practicing physical exercise due to pregnancy. The lowest prevalence of exercise was observed in the first (13.6%) and third trimesters (13.4%). Less than half of women received exercise guidance during prenatal care meetings (47.4%). Walking was the most commonly reported exercise, followed by water aerobics. Factors positively associated with exercise practice were: higher educational level (OR= 1.82; CI 95% 1.28–2.60), primiparity (OR=1.49; CI 95% 1.07–2.07), exercising before pregnancy (OR=...
P0151
HEALTH CARE SEEKING FOR PREGNANCY COMPLICATIONS IN OGUN STATE, NIGERIA

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Objectives: This qualitative study aimed to describe the health care seeking behaviour of women in Ogun State, Nigeria.

Method: The study was conducted in four Local Government Areas of Ogun State, in south-western Nigeria. Data were collected through focus group discussions with pregnant women, recently pregnant mothers, male decision-makers, opinion leaders, traditional birth attendants, health workers, and health administrators. A thematic analysis approach was used with NVivo 10.

Results: Findings showed that women utilized more than one type of provider in pregnancy; with a preference for traditional providers. There was a strong sense of trust in traditional providers with long-term residence in the communities. The patriarchal nature of these communities influenced health-seeking behaviour in pregnancy. Economic factors contributed to the delay in access to appropriate services. There was a consistent concern regarding the cost of accessing health services. The challenges of accessing services were well recognised and these were greater when referral was to higher level of care which most times attracted unaffordable costs.

Conclusions: While high cost of care is a deterrent to health seeking behaviour, the cost of death of a woman or a child to the family and community is immeasurable. To reduce deaths from pregnancy complications, all stakeholders including policy makers, opinion leaders, health care consumers and providers are crucial in shaping the health care seeking behaviour. The use of innovative mechanisms for health care financing may be beneficial for women in these communities to reduce the barrier of high cost services.

P0152
INFLUENCE OF BREAST FEEDING SUPPORT ON THE TENDENCIES OF BREAST FEEDING RATES IN THE HOSPITAL ESTADUAL DA MÃE, BAIXADA FLUMINENSE, RIO DE JANEIRO, BRAZIL

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Objectives: To assess the rate of breast feeding in a group of patients supported by a special team.

Method: A special team, named “Breast Feeding Support and Incentive Commission – Mesquita Regional Complex - Maternity and Women’s Clinics”, including obstetrician, nurse, pediatrician, physiotherapist, nutritionist, phonologist and psychologist was constituted to support the patients that delivered in the Hospital Estadual da Mâe, Mesquita, Rio de Janeiro, RJ, Brazil. The place is a very large region, with 3,500,000 inhabitants and 11 counties. The maternity is reference for low risk pregnancy and has 70 beds for the patients and 10 beds for intermediate intensive neonatal care.

Results: In February 2015, 387 patients delivered, including 79 cesarean sections (20%), Three of them were excluded, one for twin pregnancy and two for insufficient milk production. All the remaining (384, 99.22%), were discharged in a regime of exclusive breast feeding.

Conclusions: A multiprofessional team was able to support and encourage exclusive breast feeding in almost all the patients, a fundamental starting point to keep breast feeding for at least 6 months.

P0153
AN INVESTIGATION INTO THE PERSONAL BARRIERS FACED BY SUDANESE WOMEN WHEN ATTENDING ANTENATAL CARE (ANC) AND THEIR PERCEPTIONS

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Objectives: The general objective of this study is to investigate why Sudanese women do not attend adequate ANC. More specifically:

- To investigate whether socio-demographic factors affect the likelihood of a woman to attend ANC in Khartoum.
- To understand the personal maternal factors of the women interviewed that act as barriers to accessing ANC.
- To gain a greater understanding of the expectations and perceptions of that Sudanese women have of ANC.
- To investigate women’s satisfaction with maternal health care services in the Khartoum state.
- To elicit whether the use of maternal health text services would be beneficial to women.

Method: This is going to be an exploratory qualitative study into women’s perceptions of ANC and reasons why they may or may not continue to attend ANC sessions. Six focus groups for women who have recently delivered will be conducted at health centres, where women will be bringing their newborns for vaccinations. These focus groups will be conducted in three of the localities of the Khartoum state; Omdurman, Bahri and Khartoum, with one rural and one urban. Purposive sampling will be used and further focus groups will be conducted if saturation is not reached.

Results: To be discussed at conference.

Conclusions: To be discussed at conference.

P0154
HEALTH CARE SEEKING BEHAVIOURS IN PREGNANCY IN RURAL SINDH, PAKISTAN: A QUALITATIVE STUDY

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Objectives: Pakistan has alarmingly high numbers of maternal deaths along with sub-optimal care-seeking behaviour. It is essential to identify the barriers and facilitators women encountered when they sought antenatal care. The aim of this study is to understand health-seeking patterns of pregnant women in rural Sindh, Pakistan.

Method: A qualitative study was undertaken in rural Sindh, Pakistan as part of a large multi-country feasibility study in 2012. Twenty six focus group discussions and in-depth interviews were arranged with mothers (n=174), male decision-makers (n=64), Lady Health Workers (n=64), Lady Health Supervisors (n=10), Women Medical Officers (n=9) and Traditional Birth Attendants (n=7) in Hyderabad and Matori Districts. A set of a priori themes regarding care seeking during pregnancy and its complications as well as additional themes as they emerged from the data were used for analysis. Qualitative analysis used NVivo 10.
**Results:** Women stated they usually visited health facilities if they experienced pregnancy complications or danger signs, such as heavy bleeding or headache. Husbands and mothers-in-law were important decision makers regarding health care utilization. Participants expressed that lack of transport, financial constraints and the unavailability of chaperones were important barriers to accessing services. Private facilities were often preferred due to the perceived superior quality of care.

**Conclusions:** Maternal care utilization is influenced by social, economic and cultural factors in rural Pakistani communities. The perceived poor quality of care at public hospitals is a significant barrier to accessing health services for many women. In order to avert maternal deaths, policy makers need to develop processes to overcome these barriers and ensure easily accessible high-quality care for women in rural communities.

**P0155**

**IS IOM RECOMMENDATIONS FOR GESTATIONAL WEIGHT GAIN PROPER FOR KOREAN WOMEN?**

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**Objectives:** The purpose of the study was to propose the proper weight gain during pregnancy based on the World Health Organization prepregnancy BMI definitions for Asian populations.

**Method:** We retrospectively reviewed the medical records of 1,482 singleton term pregnant women who had delivered babies at Seoul St. Mary’s Hospital and Uijeongbu St. Mary’s Hospital from January 2010 to December 2010. We used World Health Organization definitions for Asian populations of underweight (BMI <18.5), normal (18.5\(\leq\)BMI\(<23\)), overweight (23\(\leq\)BMI\(<25\)), and obese (25\(\leq\)BMI). We analyzed the influences of gestational weight gain on perinatal outcomes based on the prepregnancy, and these were analyzed on the basis of maternal and neonatal complications.

**Results:** The mean prepregnancy BMI was 21.03±4.03 kg/m\(^2\); 174 subjects (11.7%) were underweight, 848 (57.2%) were normal, 194 (13.1%) were overweight, and 266 (18.0%) were obese. In normal weight group, the incidences of perinatal outcomes were significantly increased with excessively less or weight gain. The lower and upper cut-off values for weight gain were 13kg (OR 2.15; 95% CI=1.306–3.536) and 17kg (OR 1.875; 95% CI=1.919–3.628), respectively. Other groups didn’t show statistically significant cut-off values for weight gain.

**Conclusions:** This study shows proper gestational weight gain for normal weight women based on the WHO BMI definitions for Asian populations. New guideline for gestational weight gain for Korean women is needed because IOM recommendation for gestational gain does not consider BMI definition for Asian population. Further researches including larger number of study populations are required to propose the gestational weight gain guidelines for underweight, overweight, and obese groups.

**P0156**

**INCREASING UTILIZATION OF MATERNAL HEALTH AND FAMILY PLANNING SERVICES THROUGH COMMUNITY ENGAGEMENT APPROACHES IN RURAL UGANDA**

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**Objectives:** To improve utilization of maternal health and family planning services in rural Uganda through community engagement.

**Method:** Baseline facility data on utilization of delivery, antenatal and family planning services was collected and analyzed. A site walk through was conducted in which 61 community representatives and district health officials were taken on a guided tour of tKarambi Health Centre to learn about maternal and FP services available, utilization levels, barriers to use of services. Seventy four village health workers (VHTs) also identified from underserved areas were trained and supported to conduct home visits and community discussions aimed at addressing key barriers to service use.

**Results:** Between October 2012 and June 2013, VHTs sensitized 42,194 people (28,123 females, 14,071 males) about family planning and maternal health issues. HMIS data showed a marked increase in utilization of maternal health and family planning services with average monthly ANC 4 attendance being 32% higher compared to the previous year. Similarly, delivery and postnatal care services increased by 23% whereas family planning use doubled during the same period, for both short-acting methods and long-acting methods. Met demand for short-acting methods increased from an estimated 24% to 56%, whereas met demand for long-acting methods of family planning almost tripled.

**Conclusions:** Engaging communities through VHTs contributed to increased utilization of antenatal, delivery, postnatal and family planning services at Karambi HC III. Interventions aimed at increasing uptake of maternal health services should address both the demand and supply of quality services.
OUTCOME OF TWIN PREGNANCY IN BOOKED VERSUS NON-BOOKED CASES IN A TERTIARY CARE HOSPITAL IN PAKISTAN

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Objectives: To document the perinatal outcome in twin pregnancy. To compare the perinatal outcome among booked and non-booked patients with twin pregnancy.

Method: This is a cross-sectional study carried out at Obstetrics and Gynaecology Department of Holy Family Hospital, Rawalpindi. It was carried out from 12th April 2011 till 12th October 2011. One hundred and twenty eight (128) patients of twin pregnancy were included in the study: 64 booked and 64 non-booked patients. Patients data including age, gestational age, parity and mode of delivery were recorded. Information about the twins including their gender, birth weight, perinatal mortality and NICU admission due to prematurity were also recorded. The two groups were compared.

Results: The mean age of the patients was 26.22±3.67 years. The mean gestational age was 36.75±2.4 weeks. The mean weight of both twin I and II was significantly higher among the booked as compared to non-booked patients; p=0.00. Mortality rate was significantly higher among the non-booked patients both for twin I and II; p=0.00. Rate of shifting to NICU due to prematurity was significantly higher among the non-booked patients.

Conclusions: Non-booked patients have poor perinatal outcome in terms of shifting to NICU due to prematurity, neonatal weight and perinatal mortality as compared to booked group.

EXPERIENCE OF A NEW SCREENING TOOL ON PERINATAL MENTAL HEALTH: ENCOURAGING RESULTS FROM A RE-AUDIT

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Objectives: It is estimated that about 1 in 10 pregnant women suffer from perinatal mental health (PMH) problems. Every maternity unit therefore requires a screening tool at the pregnancy booking visit. There are no agreed validated screening tools available for use in the UK and therefore, no uniformity of the screening process. We devised a screening questionnaire based on the current NICE guideline (2014). We audited before the introduction of the tool and then compared the results of a re-audit after it was implemented.

Method: During the initial audit period of 3 months (May-July 2014), it was found that 53% of women with PMH problems could not be identified at the booking. It was recommended that a new screening tool should be introduced. After a period of consultation, a new screening questionnaire was devised and implemented for a period of 3 months (December 2014 – February 2015). A re-audit was carried out and the results were compared.

Results: It was confirmed in the re-audit that the detection rate was 100% with the use of screening tool. After the early detection, we used the data to triage screen positive women according to their mental health condition/s into high, medium and low risk category. This helped us to prioritise patients in clinical appointment allocation. Early detection also helped us in Clinical Coding and appropriate payment from Clinical Commissioning Groups (CCG).

Conclusions: We found this new screening tool was very helpful for early screening of women with PMH problems. This in turn has been beneficial in the triaging and Clinical Coding (for allocation into appropriate Maternity Tariff). Early detection has ensured early intervention, treatment and reduction of clinical risk (prevention of puerperal psychosis and suicide). Considering all these benefits, we feel that the screening tool could be safely used at booking. A multi-centre trial is being proposed to evaluate the effectiveness of the tool.

SUCCESSFUL DEVELOPMENT OF A LOW-COST CARE PATHWAY FOR PERINATAL MENTAL HEALTH: “THE BARNET MODEL”

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Objectives: It is estimated that 1 in 10 pregnant women have perinatal mental health (PMH) problems. The Confidential Enquiry into the Maternal Deaths (2014) in the UK has revealed that suicide is still a leading cause of late maternal death. Therefore all maternity units in the country should have a clear pathway for the detection and management of women with PMH. Lack of adequate funding is often mentioned as the obstacle to this. We describe a useful model to develop a care pathway on PMH with optimum utilisation of the existing resources.

Method: We developed and ran this pathway successfully over a period of 8 months (June 2014 – February 2015) and assessed the impact of care. First we identified a named Consultant Obstetrician and a named Midwife responsible for PMH. Then we allocated these patients to a designated Antenatal Clinic. We also clarified the referral system to the local Psychiatry and counselling services. We developed clear pathways to deal with any mental health crisis. Postnatal follow up and care was also revised. Database of all the patients were maintained for audit purposes and to ensure continuity of care.

Results: We noted that minimal modification of the job descriptions were required for both the Obstetrician and the Midwife. No additional funding was required to support the care pathway as this only utilised the existing resources in a more structured way. This also improved patient safety as no puerperal psychosis or suicide noted in women cared for in the pathway. The quality of care also improved as reflected in patient feedback.

Conclusions: This model reflects that a low cost care pathway in PMH can be successfully developed if medical and midwifery staff have motivation and willingness. Obviously this needs support from the maternity management staff. We firmly believe that this model can be replicated in other Maternity Units to improve patient safety and satisfaction.
side-by-side in random order by blinded ultrasound-trained radiologists and rated for resolution, detail, and total image quality using 100mm visual analogue scales. Clinical equivalence was set at a difference ≤ 10mm in total image quality. We also assessed participant satisfaction and ultrasound technician comfort with CFS use.

Results: Thirty participants are providing 360 images for comparison. Results will be presented at the FIGO World Congress.

Conclusions: We developed and have been using CFS in eastern DRC for the past year out of necessity because of the high-cost and limited availability of commercial ultrasound gel. CFS is inexpensive and easy to produce using only local resources. If our study demonstrates that cassava flour slurry produces ultrasound images that are non-inferior to commercial gel, we can disseminate this information to help decrease cost and therefore increase access to ultrasound screening, monitoring, and diagnosis for pregnant women in low-resource settings.

P0162 PRENATAL TELBIVUDINE EXPOSURE MAY IMPAIR EXERCISE CAPACITY OF OFFSPRING

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Objectives: Telbivudine is an orally bioavailable I-nucleoside with potent and specific anti-HBV activity and have been reported of the efficacy of blocking mother-to-infant transmission of HBV. However, few studies focus on the safety of prenatal exposure and offspring development.

Method: Participants were neonate enrolled in women hospital, school of medical, Zhejiang University between Jan. 2012 to Sep. 2013. Mother’s venous blood and Fetal umbilical vein blood was collected immediately after delivery. After 12–24 month later, off-spring were extracted venous blood and the Bayley Scales of Infant Development-II (BSID) was used to assess motor and cognitive function. HBV-DNA copy number, alanine aminotransferase (ALT), creatine kinase (CK), creatinine (Cr) and blood urea nitrogen (BUN) were detected in all blood samples.

Results: Total 103 neonates born from chronic hepatitis B (CHB) mother treated with Telbivudine (n=30), CHB mother without Telbivudine treatment (n=30) and normal pregnant women (n=43) were included in this study and 101 neonates completed the follow-up evaluations after 12–24 month. Compare with no telbivudine treatment group, telbivudine treatment significantly decrease copy of HBV-DNA and defend HBV infection in neonates. However, creatine Kinase in fetal umbilical vein blood was significantly increasing in telbivudine treatment group. After 12–24 month, offspring with pre-natal telbivudine exposure have lower BSID-motor scale than normal and no telbivudine treatment group, but no differences in BSID-mental scale.

Conclusions: Prenatal telbivudine exposure increase CK in fetal umbilical vein blood, and may impair exercise capacity of offspring.

P0163 A RANDOMIZED CONTROLLED TRIAL TO EVALUATE THE EFFECTIVENESS OF THE NEW WHO MODEL OF ANTENATAL CARE VERSUS THE STANDARD MODEL OF ANTENATAL CARE IN A TERTIARY GOVERNMENT HOSPITAL

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Objectives: To compare the standard model of antenatal care with a new WHO model that limits the number of visits to the clinic and restricts the tests, clinical procedures and follow up actions to those that have been shown to improve outcomes for women and newborn.

Method: Single blind randomized controlled trial was done to answer the question of whether a model with a lower number of antenatal visits is as effective in improving maternal or neonatal outcomes as the standard model. The participants were pregnant women attending antenatal care in the Out Patient Department of the Department of Obstetrics and Gynecology in Mandaluyong City Medical Center from January 1, 2014 to February 28, 2014. Subjects were randomly assigned to either the new WHO model or the standard model by using a pre-sealed envelope containing numbers. The occurrence of maternal and fetal morbidity and mortality were noted.

Results: Out of 34 subjects, 47% was included in the new WHO model and 53% in the standard model. Patients in the new model had a median of four visits while those in the standard model had a median of eight visits. UTT rates were almost similar between the two groups. One preeclampsia case was noted in the new model group while no case was reported in the standard model group. 20% of patients in the new model had postpartum anemia while 13% occurred in the standard model. The rate of low birth weight was very similar between the two groups.

Conclusions: Based on the results of this trial, it was concluded that models with a reduced number of antenatal visits could be introduced especially in developing countries like the Philippines into clinical practice without any risk of adverse consequences to the woman or the fetus.

P0164 PSEUDOANEURYSM FOLLOWING VAGINAL DELIVERY: A COMPLICATED CASE OF CONCEALED SECONDARY POST PARTUM HAEMORRHAGE

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Objectives: To present a case of secondary post partum haemorrhage, attributed to an uterine artery pseudoaneurysm following spontaneous vaginal delivery. In contrast to other case reports of pseudoaneurysm, this case demonstrated concealed haemorrhage resulting in haemodynamic collapse and subsequent management with interventional radiology, and a conservative approach.

Method: Following spontaneous vaginal delivery, this 31 year old patient was readmitted on day 18 post nataly with abdominal pain, pyrexia and pain on defaecation. Investigations revealed a haemoglobin of 74 and ultrasound/CT suggested a pelvic haematoma. There was no reported significant vaginal bleeding. Repeat imaging 48 hours later (CT angiogram) suggested a left sided pseudoaneurysm, within a haematoma, arising from a distal branch of the internal iliac artery. Prior to planned interventional radiology, hypovolaemic shock ensued. Resuscitation, stabilization, and prompt embolization of a branch of the left internal iliac artery was carried out. Results: This patient spent 5 days in ITU. The large haematoma and thrombosed pseudoaneurysm were subsequently conservatively managed, avoiding surgical evacuation. At 8 weeks, re-imaging showed the haematoma to have reduced significantly in size. Her recovery was complicated by a groin haematoma from the femoral artery cannulation, and eight days after her embolization procedure, she developed pleuritic chest pain and despite prophylactic LMWH, was diagnosed with multiple bilateral segmental pulmonary emboli. This was managed with therapeutic LMWH and eventually Warfarin.

Conclusions: Uterine artery pseudoaneurysm remains a rare but important cause of secondary PPH, which can result in rapid hypovolaemic shock, illustrated in this case, as an acute abdomen, rather than vaginal bleeding. Accurate diagnosis by ultrasonography or CT scan is vital. Prompt interventional radiology as soon as diagnosis is made would be prudent, and of paramount importance, differentiation between pseudoaneurysm and simple haematoma is essential in
avoiding unnecessary surgery, with resolution demonstrated following embolization.

**P0165**

**DEMOGRAPHIC, DIETARY, BIOMETRIC AND HORMONAL CORRELATES OF CURRENTLY PREGNANT WOMEN IN THE NATIONAL HEALTH AND NUTRITION EXAMINATION SURVEY (NHANES)**

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**Objectives:** To evaluate associations of pregnant women with demographic factors, dietary intake patterns, and select biometric, cardiovascular and hormonal factors.

**Method:** This cross-section study used data from the National Health and Nutrition Examination Survey for the years 2000–2010, which included 661 pregnant and 3514 not pregnant women. The database included all dietary intakes, vitamin intakes (A,B1, B12, B6, Folate, niacin, C, E, K), trace metal intakes (copper, zinc, iron, selenium, copper, potassium), alcohol, caffeine, and theobromine intakes. HOMA IR (insulin resistance) was calculated. Categorical variables were analyzed using Pearsons Chi-square tests. Continuous variables were examined using Wilcoxon rank sum tests.

**Results:** Pregnant women compared to non-pregnant women were younger, nonsmokers, had lower blood pressures, smaller household, lower income, more likely married, less likely black ethnicity; had smaller measurements of skin fold and arm circumference; larger waist circumference; no difference in BMI. Pregnant women had 24% increase in caloric intake, consuming more lipids, sugars, protein, fiber, vitamins and trace minerals, but lower intake of caffeine and alcohol. They had significantly larger plasma glucose levels with no significant differences in glucose or HOMA IR. Free T4 and free T3 were lower in pregnant women with no difference in TSH and TPO antibodies.

**Conclusions:** The findings demonstrate a distinct demographic profile in pregnancy with lower blood pressures and lower free thyroid hormone levels. The nutrition findings suggest that pregnant women eat more and have a better nutritional intake. The biometric profile may suggest differences in adipose deposits in pregnancy.

**P0166**

**AN INNOVATIVE TRAINING PROGRAM ON PREVENTION, IDENTIFICATION, AND REPAIR OF ACUTE OBSTETRIC TEARS AT THE COMMUNITY LEVEL INCLUDING USE OF A CUSTOMIZED COW-TONGUE SIMULATOR**

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**Objectives:** Recent investigation revealed that 31% of women that underwent surgical repair for obstetric fistula at two large fistula camps in Kenya were afflicted with unrepaired third- and fourth-degree obstetric tears. Additionally, midwives, clinical officers and doctors have been shown to be lacking in the knowledge and skills necessary to prevent, identify, and secure access to timely repair of third and fourth degree tears. We sought to develop a best evidence training module designed to train midwives, clinical officers, and doctors in obstetric tear prevention, proper postpartum examination, identification of pathology, and repair of acute third and fourth degree tears.

**Method:** A comprehensive review of the world’s literature on fistula and obstetrical tears was conducted. Additionally, international experts in midwifery, leaders from the Kenya Nursing Council, and world leaders in fistula and urogynecological surgery were interviewed. A best evidence and contextually appropriate training module for midwives, clinical officers and doctors at the community level, on the prevention, diagnosis and repair of acute third and fourth degree tears was designed with the goal of rapid knowledge and skills transfer. Anatomical models were developed using locally sourced low-cost materials.

**Results:** A pre- and post-test assessment tool was developed, improved, and eventually validated via trial runs with OB/GYN and non-OB/GYN maternal health providers. Knowledge of perineal anatomy and ability to identify various obstetrical tears was assessed via a series of pictures with attached questions. Repair skills were evaluated via a customized cow-tongue simulator (CTS). The one-day training program includes a detailed review of anatomy, tear prevention strategies, video presentations of proper exam and repair techniques, and hands on skills development via the CTS.

**Conclusions:** We developed a best evidence one-day training program including a customized cow-tongue simulator designed to train midwives, clinical officers, and doctors at the community level on the prevention, diagnosis and repair of acute third and fourth degree obstetric tears. Although preliminary support has been gained from the Kenya Nursing Council and the Kenya Medical Association for implementation, future efforts will need to include further development of political will, monitoring impact and quality of provider performance, and training module optimization. Successful scaling of this intervention could potentially reduce up to 31% of the burden of obstetric fistula.

**P0167**

**INTEGRATION OF ANTENATAL CARE SERVICES WITH HEALTH PROGRAMMES: SYSTEMATIC REVIEW**

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**Objectives:** Antenatal care (ANC) presents a potentially valuable platform for integrated delivery of additional health services for pregnant women, vital to reduce the persistently high rates of maternal and neonatal mortality in low- and middle-income countries. However, there is limited evidence to guide policy on integration of health services with ANC. This systematic review assesses the impact of integration of postnatal and other health services with ANC on health services uptake and utilisation, health outcomes and user experience of care for women and children, and considers how integration influences healthcare provision (such as processes, outputs, service quality).

**Method:** Randomised or non-randomised studies that compared delivery of health services integrated with ANC to non-integrated models of delivery were eligible for inclusion. Integration was defined as co-location of services using a single point of access; collaboration between multiple healthcare providers; or a well-organised referral system with follow-up and feedback among different providers. Cochrane Library, Medline, Embase, CINAHL Plus, POPLINE and Global Health were searched for relevant studies. Risk of bias was assessed using the EPOC criteria and the Newcastle-Ottawa Scale, depending on the study design. Due to high heterogeneity no meta-analysis could be conducted. Results are presented narratively.

**Results:** 6416 unique citations were retrieved from the search. 12 studies were included in the review. Nine studies focused on integration of HIV-related services with ANC, two studies discussed the integration of syphilis screening and treatment, and one study described the integration of postnatal care services with ANC. Only two studies were randomised controlled trials. Limited evidence suggests that integrated delivery results in improved uptake of essential health services for women, earlier initiation of treatment, and better
health outcomes. Women also reported improved satisfaction with integrated services.

**Conclusions:** The reported evidence is largely based on non-randomised studies with moderate to high risk of bias, and therefore offers very limited policy guidance. More rigorously conducted studies, ideally involving comparison between different service delivery models with random allocation, are needed to better ascertain and quantify the health and economic benefits of integrating health services with ANC. The content and complexity of such an integrated service package should also be informed by the local health system capacity and epidemiological context, with careful consideration of potential adverse effects on available capacity and service quality.

**P0168**

**WOMEN’S INTERPRETATION OF BIOMEDICAL SPEECH AND ITS INFLUENCE IN LACTATION. QUALITATIVE STUDY CONDUCTED IN QUITO**

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**Objectives:** Analyze women's interpretation of information related to lactation provided by public health practitioners during prenatal, childbirth and puerperium.

**Method:** A qualitative study was conducted using focus groups and in-depth interviews to 16 - 36 years old women residents in Quito, who have given birth after a normal pregnancy and delivery, and users of public primary health care services. A narrative content analysis of the results was conducted.

**Results:** Most women asserted they never received any information about breast-feeding during prenatal care appointments or after delivery. Interviewed women agreed they have several doubts and questions about breast feeding that have not been addressed to health practitioners for fear or embarrassment and mostly because of the authoritarian relationship with their physicians. Participants said they preferred to ask for advice and information to other women close to them.

Most frequent doubts about breast feeding were related to the importance and benefits of breastfeeding, mother’s nutrition, frequency of nursing, milk supply and prevention of nipple soreness.

**Conclusions:** This study shows that women need to receive prenatal information about breast feeding and professional support during and after pregnancy in order to increase the probability of nursing and to promote their self confidence regarding to motherhood.

**P0169**

**DELAYED INTERVAL DELIVERY OF TWIN TWO IN DCDA PREGNANCIES**

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**Objectives:** Delayed interval delivery (DID) is delivery of the second fetus after premature delivery of the first fetus in multiple pregnancies. It is a controversial topic, with increasing number of case reports describing it. Increasing maternal age and assisted reproductive techniques, increases the incidence of multiple pregnancies which is associated with increased risk of preterm delivery and therefore increased risk of neonatal morbidity/mortality. DID of the second fetus could potentially prolong pregnancy and achieve good prognosis. However it could increase risk of sepsis and maternal/neonatal morbidity. We present two cases with good and bad outcomes from DID in DCDA pregnancies.

**Case reports:** Case one. A 41-year old presented at 22-weeks with PROM, followed by miscarriage of twin 1. Umbilical cord was ligated, patient was discharged with regular follow-up. She was re-admitted at 27-weeks with chorio-amnionitis, delivered by c-section and mother and baby made uncomplicated recovery. Case two. A 40-year old presented with PROM at 23 weeks, followed by a spontaneous vaginal delivery of twin 1. Cord was ligated, close monitoring of inflammatory markers commenced. At 24 weeks developed sepsis, labour was induced and SVD of twin 2 followed. Twin 1 made good progress but twin 2 deteriorated secondary to sepsis and died.

**Results:** As above.

**Conclusions:** Most case reports of DID demonstrate improved fetal outcomes for twin 2, however there is an absence of agreement regarding the best management of these pregnancies. Majority describe antibiotics and regular monitoring, however tocolysis, progesterone and cerclage may aid prolonging the interval between delivery of twins 1+2. There is a continuing debate on how to manage these patients due to increased risks of ascending infection after delivery of twin one. Therefore, care must be individualised and obstetricians must be reminded the success of DID of twin 2 cannot be predicted, nor easily achieved, as demonstrated by our two contrasting cases.

**P0170**

**USE OF A PRE-TERM CLINIC AND STRATEGIES FOR IDENTIFYING WOMEN AT RISK OF PRE-TERM BIRTH [PTB] AT WEST MIDDLESEX UNIVERSITY HOSPITAL [WMUH]**

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**Objectives:** PTB is defined as delivery <37+0 weeks gestation and is a significant cause of infant mortality and morbidity, exceeding the annual costs of smoking-related disease. In December 2010, WMUH introduced a multidisciplinary antenatal prematurity clinic [PTC] identifying women at high-risk of PTB. Referral criteria included previous PTB, second trimester loss, cervical excision and cervical shortening. Current PTB prediction tools: clinical history, cervical length assessment and fetal fibronectin are imperfect. We sought to establish if current referral criteria to PTC are being followed and reviewed women with PTB not attending PTC, to enhance PTC attendance. Outcome of PTC are reported elsewhere.

**Method:** Using the hospital computer software systems we identified women who delivered pre-term between 1st January 2012 and 31st December 2013 at WMUH and assessed their risk factors for PTB including previous PTB, current medical [e.g. diabetes; sepsis] or obstetric [ante partum haemorrhage, obstetric cholestasis, pre-eclampsia] risk factors and “lifestyle” risk factors [RFs], which included body mass index [BMI] ≤18 or >35, age ≤20 or ≥40, current smokers, domestic violence and substance abuse. A prospective database is maintained of women attending PTC: 260 women attended in the same time frame, of whom 44 [17%] delivered preterm: they were excluded from further analysis.

**Results:** There were 9715 births in our maternity unit during the study period. 588 women delivered <37 weeks’ gestation, giving a PTB rate of 6%. 44 [7.5%] of these women attended PTC and were excluded, alongside 88 multiple pregnancies. Amongst the remaining 544, 30 met current PTB criteria but were not referred and therefore excluded. 252 had a planned pre-term Caesarean-section or induction of labour. Thus 262 [43%] of all PTB were non-iatrogenic and unpredictable pre-term births. We assessed lifestyle risk factors [RFs] of the 262 women: 203 [77%] had none, 48 [18%] had one, 10 [4%] had two and only 1 [0.4%] had three.

**Conclusions:** PTC selection at WMUH identified the majority of women with predictable PTB risks. However, 43% of PTB in our unit is iatrogenic and 45% is unheralded by pre-existing obstetric factors. Of those with PTB but not attending PTC, 81% of multiparous women had no PTB history - a major RF in PTC selection. The number of lifestyle RFs in women delivering preterm is not high enough for use in the selection process for PTC attendance and suggests that lifestyle factors
have a poor predictive role. In summary, PTB remains highly unpredictable with a huge burden on the healthcare economy.

PO171
RE-EMERGING FULMINANT POSTPARTUM STREPTOCOCCAL SEPSIS – KEY CONCERNS AND RECOMMENDATIONS
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Objectives: Puerperal sepsis remains a leading cause of maternal mortality throughout the world. Group A streptococcal (GAS) infections are relatively rare with an incidence of 0.5 cases per 10,000 deliveries. The diagnosis can be elusive due to the varied and atypical presentation. This delay could be fatal due to the rapid, aggressive nature of invasive disease. Progression is associated with streptococcal toxic shock syndrome where mortality rates approach 40–60%. Postpartum women have a 20-fold increased incidence of GAS disease compared with non-pregnant women, most of them follow vaginal delivery and occur within the first 4 days postpartum.

Method: We present a 27-year-old Omani lady who presented 2 days following a vaginal delivery with unremitting abdominal pain, septic shock, thrombocytopenia and deranged coagulation. Multiorgan involvement followed. After aggressive fluid replacement, IV broad spectrum antibiotics, resuscitation and correction of coagulation parameters, a subtotal hysterectomy, bilateral salpingectomy and partial resection of necrotic areas of both ovaries with thorough peritoneal lavage was performed. All cultures grew GAS. A stormy postoperative period followed. She was discharged home 19 days later.

Results: A stormy postoperative period followed. She was discharged home 19 days later. She has recovered completely and both mother and baby are healthy and well 9 months later.

Conclusions: GAS related invasive infections in the form of endometritis, necrotizing fasciitis or streptococcal toxic shock syndrome. Toxins released spread along tissue planes causing necrosis. Awareness, early diagnosis, aggressive emergent management with fluid resuscitation and broad spectrum antibiotics (IV Benzyl Penicillin and Clindamycin) can be life-saving. A review of management issues, published guidelines and current protocols will be presented.

PO172
ENDOTHELIUM AT THE PHYSIOLOGICAL FLOW OF PREGNANCY
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Objectives: Study products of endothelial factors at the physiological flow of pregnancy.

Method: The study level of endothelial factors is conducted in the whey of blood for 200 healthy patients during physiological pregnancy.

Results: A change the products of endothelial factors is begun with the early terms of pregnancy, that possible to bind to influencing of factors implantation and it is directed on maintenance of formed bloodflow in the system mother - chorion - embryo. There is stimulation function of endothelium of the formed feto - placental complex in the 1 trimester of pregnancy, that shows up in multiplying the level of constantly appearing endothelial factors. Since the period of the second wave invasion of trophoblast maintenance forming syndrome endothelial dysfunction in a fetoplacental complex even at the physiological flow of pregnancy.

Conclusions: Physiological pregnancy is characterized stimulation and activating endothelium of fetoplacental complex. Changes the products of endothelial factors at the physiological flow of pregnancy are characterized predominance of vasodilatation substances. Growth level markers damage of endothelium is characteristic with multiplying the term of pregnancy, which talks about development of syndrome endothelial dysfunction even at the physiological flow of pregnancy.

PO173
BLOOD PRESSURE LOOSENESS FACTOR: A PROSPECTIVE STUDY DURING PREGNANCY
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Objectives: This prospective study aims to determine the importance of the looseness factor in the precision of the blood pressure (BP) measurement compared to a baseline of a snugged measurement with an approved oscillometric monitor device, an appropriate size cuff for the arm circumference and a standardized technique of measurement (according to the British Hypertension Society guidelines).

Method: Pregnant women attending prenatal care at the University of Texas Health Science Center in Houston were invited to participate. BP measurements were obtained using an Omron 7000W oscillometric digital monitor following the guidelines of the British Hypertension Society.

Each patient had 6 BP measurements (3 per arm). Loose BP measurement were done at +1, +2 and +6 cm on each arm after a baseline was obtained. The arm with the highest baseline measurement was used as the reference for the other measurement.

Absolute differences were recorded as well as errors of the measurements.

Results: Between 11/01/2013 and 10/16/2014 100 pregnant women were recruited in the study. Their average age was 27.7±6.7 years. Their median parity was 2 (range: 1–8); their median GA at the time of evaluation was 29 3/7 (range: 8 to 40 3/7 weeks).

11% had a personal history of chronic hypertension and 4% were smokers. The average BMI was 31.3±7.1. Though 5% of the cohort were left hand dominant in 54% of the higher baseline BP was on the right arm (46% the left arm).

Conclusions: Using an oscillometric BP monitoring approved for research the looseness of an appropriately sized cuff leads to errors in the measurement in 3, 10 and 32% of the cases at 1, 2 and 6 cm relative to the corresponding baseline BP.

Assessment of Fetal Wellbeing

PO174
INVESTIGATING THE POTENTIAL INTRAPARTUM IMPACT OF MATERNAL OBESITY ON THE FETAL ELECTROCARDIOGRAM
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Objectives: Maternal obesity is exponentially growing pandemic in the world, affecting one in every five women nowadays and also associated with adverse perinatal outcomes. The aim of the study was to reveal the burden of obesity on fetal circulation intrapartum.

Method: In a prospective study, carried out at the University of Pecs Clinical Center, Pecs Hungary, between January 1st 2013 and January 1st 2014 we enrolled 60 obese, low-risk pregnant women, with a BMI greater than 30 kg/m², and age, and parity matching 108 low-risk control subjects. The ST segment of the FECG was assessed by utilizing continues, real-time assessment with STAN® monitoring. Neonatal outcome was evaluated by cord gas analysis.

Results: No infants were delivered with definitive metabolic acidosis, despite we observed 32 ST deviations in obese women, comparing to 106 ST events in the non-obese group. We failed to demonstrate significant statistical difference between the two study groups according to alterations in the ST segments of the FECG. Till date no
developmental insufficiency was detected in infants participated in the study.

**Conclusions:** Our results suggest that obesity itself, as an independent risk factor for pregnancy, might not dramatically influence the fECG during labor, although large number cohort is needed to confirm our findings.

**P0175**
**TWIN REVERSE ARTERIAL PERFUSION (TRAP) – A CASE REPORT AND LITERATURE REVIEW**

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**Objectives:** Aim of this report was to present a case of acardius anaphalus, which was mistaken for a live anomalous singleton fetus, discuss its clinical features, ways to improve diagnostic accuracy and review of literature.

**Method:** Case report clinical presentation of patient and clinical/operative findings.

**Results:** A 21 year old unbooked Primigravida was seen in labour ward with a ten hours history of labour pains. Urgent transabdominal ultrasound scan was done, which revealed a singleton live fetus at 30 weeks gestation with gross cystic mass lesion at the level of the abdomen and polyhydramnious. An assessment of preterm labour with anomalous fetus was made. Caesarean section revealed a polyhydramnious of two liters, twin gestation with monoamniotic monochorionic single placenta. The umbilical cord of the acardiac twin was very short- 20 centimeters with a single artery. First twin was a live female baby, weighing 1000g.

**Conclusions:** Though TRAP is a rare event diagnosis is aided by ultrasound scan. Early referral to feto maternal unit will improve perinatal outcome.

**P0176**
**THE FETAL MONITOR OF THE FUTURE: THE BIOCHEMICAL FETAL MONITOR: BFM**

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**Objectives:** The fetal monitor, a mechanical instrument, is been used to make biochemical diagnosis.

At the level of the fetal cellular membrane a sodium and potassium pumps maintain a different concentration of electrolytes in the ECF and the ICF, this resulting in a different electric power of ~40 millivolts (mV) between both spaces. The oxygen releases the energy for both pumps. The depolarization of the fetal cellular membrane from ~40 mV to 0 mV, produced the normal variability and beat to beat decreases.

**Results:**
- The Buffer Base read as Base Deficit (BD) is the best parameter to detect chronic fet al asphyxia: a BD. of 6 mMol/L or higher, signals this condition. (normal BD 4 mMol/L).
- Decreased variability and beat to beat, is seen in hypoxia: pO2 10 mmHg.
- A pO2 of 10 mmHg, or lower, is seen in early cases of utero placenta insufficiency: Stage I (normal pO2: 16 mmHg).
- As a gas, the CO2 speed of diffusion is 20 times faster than O2.

**Conclusions:** Should initial electric power, decrease from ~40 mV to a base line ~10 mV, as in hypoxia: the variability and beat to beat decreases: this due to changes in concentration of electrolytes inside the cells, and outside the cell: both changes controlled by the potassium and sodium pumps.

The pumps use energy from oxygen: so during hypoxia, the membrane electric power decreases to less than ~40 mV, and the variability & beat to beat decreases.

A straight line on the EFM means: the depolarization is 0, and the pumps are gone.

We must develop techniques to evaluate all the parameters of the Acid Base Balance.

**P0177**
**EVALUATION OF ERYTHROMYCIN CONCENTRATION – IN THE UMBILICAL ARTERY SERUM – IN HUMAN PREGNANCIES WITH GROUP B STREPTOCOCCAL INFECTION**

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**Objectives:** The aim of this study was to investigate the effectiveness of erythromycin in preventing fetal and intrauterine Group B Streptococcal (GBS) infections. To this end, we investigated the penetration of erythromycin through the placenta by comparing umbilical artery and maternal serum erythromycin concentrations after intravenous drug administration. Erythromycin is still present in Polish Gynecological Society recommendations for the prevention of perinatal GBS infection.

**Method:** The study covered 42 women who delivered naturally or by elective Caesarean section between 17th April 2013 and 22nd July 2013. The inclusion criteria were as follows: mothers with GBS-positive screening and mothers whose laboratory screening was not available. The women were given 600mg of erythromycin lactobionate intravenously. Serum erythromycin concentrations were evaluated using enzyme-linked immunosorbent assay (ELISA) kit. The percentage and correlation between umbilical artery and maternal serum erythromycin concentration were calculated. Based on regression function parameters selected factors, presumably related to the umbilical artery serum erythromycin concentration, were investigated. Statistical analysis was performed using Statistica software version 10.0. A p-value of <0.05 was considered significant.

**Results:** The average maternal drug concentration in the sample was 2373.98 ng/ml (median 2449.20 ng/ml). The mean umbilical artery serum concentration was 50.85 ng/ml (median 51.63 ng/ml). The mean umbilical artery - maternal serum erythromycin concentration percentage was 2.62%. There was a high correlation between umbilical artery serum and maternal serum erythromycin concentration ($r=0.67; 0.5≤r<0.7$), the correlation was statistically significant. Selected variables characterizing mothers (maternal age, maternal body weight, gestational age at delivery) had no impact on the umbilical artery serum erythromycin concentration.

**Conclusions:** Intravenous application of erythromycin at a dose of 600 mg, allowed to achieve therapeutic concentration in maternal serum (MICG90=63ng/ml; MICG99=125ng/ml). However, when it comes to placental transfer of erythromycin, the lack of therapeutic concentration in umbilical artery serum was observed. The limited transplacental transfer of erythromycin, which was approximately 2.6%, suggests compromised efficacy in the treatment of intrauterine fetal infections. On the other hand, the placenta seems to produce an effective barrier reducing the fetal exposure when erythromycin is used exclusively to treat maternal infections.
RESULTS: In this study PNM was found to be 50.8/1000 live births. Preterm delivery was 35%, LBW was 45% and malpresentation 24.6% among cases and these were significantly higher than the controls. Maternal booking status, malpresentation, vaginal route delivery, prematurity and LBW were important determinants of PNM. Most of the deaths didn’t have explainable cause of death. Of the known causes congenital malformation and mechanical cause are the most common. Maternal age. Parity and multiple gestations were not found to be predictors of perinatal deaths.

CONCLUSIONS: LBW and preterm deliveries were important determinants of PNM. Thus the delivery unit in the hospital should make improvements in the neonatal care services. Improved documentation of obstetric information is important to reduce the number of unexplained causes of death. Improved ANC and intrapartum care can play important role to reduce PNM in GMH.

P0178
THE PLACENTAL TRANSFER OF ERYTHROMYCIN – EVALUATION OF ERYTHROMYCIN CONCENTRATION IN THE UMBILICAL VEIN SERUM

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Objectives: The aim of this study was to investigate the effectiveness of erythromycin – which is still present in Polish Gynecological Society recommendations – in preventing intrauterine infections caused by Group B Streptococcus (GBS).

Method: The study subjects were 20 pregnant women, with GBS-positive screening or whose laboratory screening was not available, who delivered between 17th April 2013 and 22nd July 2013. The women were given 600mg of erythromycin lactobionate intravenously. Serum erythromycin concentrations were evaluated using enzyme-linked immunosorbent assay (ELISA) kit. Statistical analysis was performed using Statistica software version 10.0. A p-value of <0.05 was considered significant.

Results: The average maternal drug concentration in the sample was 2403.79 ng/ml (median 2202.40 ng/ml). The mean umbilical vein serum concentration was 54.59 ng/ml (median 56.13 ng/ml). The mean umbilical vein - maternal serum erythromycin concentration percentage was 2.67%. There was a high correlation between umbilical vein - maternal serum erythromycin concentration (r=0.59579; 0.5≤r<0.7), the correlation was statistically significant (p=0.056<0.05). Selected variables characterizing mothers (measurable and non-measurable (multiplicity of pregnancy, number of childbirths, type of delivery-vaginal or elective Caesarean section) characteristics were performed. In order to investigate the dependence sought, correlation coefficients for each pair of variables were calculated. Statistical analysis was performed using Statistica software version 10.0. A p-value of <0.05 was considered significant.

Conclusions: Intravenous application of erythromycin at a dose of 600 mg allowed to achieve the value of MIC50 and MIC90 for erythromycin against strains S. agalactiae in maternal serum. Nevertheless transplacental transfer of erythromycin is limited (2.67%) and intravenous application of erythromycin at a dose of 600 mg do not allowed to achieve the value of MIC50 and MIC90 for erythromycin against strains S. agalactiae in umbilical vein serum. This suggests a compromised efficacy in the treatment of intratropical fetal infections. At the same time, placenta seems to be an effective barrier reducing the fetal exposure when this macrolide is used to treat maternal infections.

P0179
DETERMINANTS OF PERINATAL MORTALITY AT GHANDI MEMORIAL MATERNITY HOSPITAL, A CASE CONTROL STUDY, IN ETHIOPIA

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Objectives: To assess determinants of perinatal mortality in Ghandi Memorial hospital and to determine the probable causes of death.

Method: Unmatched case control study was conducted to compare the multiple risk factors between perinatal deaths and their sampled live birth controls in Ghandi Memorial Hospital between September 2007 and August, 2009 based on information obtained from register books and patient charts. The sample size for cases was 220 while for controls 440. Important variables were maternal age, parity, booking status, GA, birth weight and others.

Results: Of the deaths didn’t have explainable cause of death. Of the known causes congenital malformation and mechanical cause are the most common. Maternal age. Parity and multiple gestations were not found to be predictors of perinatal deaths.

Conclusions: LBW and preterm deliveries were important determinants of PNM. Thus the delivery unit in the hospital should make improvements in the neonatal care services. Improved documentation of obstetric information is important to reduce the number of unexplained causes of death. Improved ANC and intrapartum care can play important role to reduce PNM in GMH.

P0180
EVALUATION OF CAUSES OF STILLBIRTH IN A TERTIARY CARE CENTRE IN NORTH INDIA

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Objectives: To study the causes of stillbirth in a tertiary care teaching centre of north India.

Method: The study was conducted over a period of 1 year from June 2013 to May 2014 in the department of Obstetrics & Gynecology, King George’s medical University Lucknow, Uttar Pradesh, India (one of the most resource constrained state of India). All the stillbirths in the time period were evaluated for the possible causes and a predesigned structured proforma was filled.

Results: There were a total of 7,024 deliveries and 550 stillbirths in 1 year making stillbirth rate of 78.30 per 1000 total births. 536 women (97.5%) were admitted with intrauterine death. Antepartum haemorrhage (22.3%), Preeclampsia and eclampsia (19.2%), Fetal growth restriction (15.2%) were the most contributing causes of antepartum stillbirth. Malpresentation (9.6%), rupture uterus (9%) and obstructed labour (6.3%) were the prominent intrapartum causes of stillbirth. Causes of intrapartum stillbirth showed statistical significant correlation with place of residence (rural-urban), distance of health centre, time taken to reach first point of contact (p). Congenital anomalies were seen in 32 (5.8%) births.

Conclusions: Incidence of still births is very high as compared to developed nations (78.3 vs. 3.1 per 1000 total births). Haemorrhage, hypertensive disorders of pregnancy and neglected labour were the leading causes of stillbirth. Better antepartum and intrapartum supervision, rapid transportation to health centre can prevent majority of still births.

P0182
CAN UTERINE ARTERY DOPPLER VELOCIMETRY PREDICT PERINATAL OUTCOME? A COMPARATIVE STUDY OF BOTH HYPERTENSIVE AND NORMOTENSIVE PREGNANT PATIENTS AT THE LAGOS UNIVERSITY TEACHING HOSPITAL (LUTH)

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Objectives: To evaluate the role of uterine artery Doppler in identifying fetuses at increased risk of adverse perinatal outcome in both hypertensive and normotensive gravidae.

Method: Forty one patients each of the two groups were selected as consecutive consenting subjects recruited from the antenatal clinic, labour ward, antenatal ward and the gynaecologic emergency section of the Lagos University Teaching Hospital and were subjected to both uterine artery Doppler and also biometric fetal parameters taken, then followed up till delivery. Uterine artery score (UAS) ≥2 is described as abnormal in which case there were 2 or more abnor-
mal Doppler parameters on either or both uterine arteries. Data were analysed using the EPI-INFO Version 6.4D (Centre for Disease Control and Prevention, Atlanta, GA, USA). P-value <0.05 shows significance.

**Results:** The mean age was 31±4.72 years and 29.66±4.69 years for the hypertensive and normotensive groups respectively. The mean parity was 1.7±1.36 and 1.3±1.15 (P=0.038) was for the hypertensive and normotensive groups respectively. Most of the subjects were nulliparous (58.5%), mean gestational age at Doppler was 25.95±6.009 weeks. As high as 43.9% of the hypertensive group had abnormal uterine artery score (UAS). 38.9% of the patients with abnormal UAS had babies that needed NICU care (P=0.02).

**Conclusions:** The results suggest that the UAS shows a good correlation with the perinatal outcome of complicated pregnancies and may as well be incorporated routinely in the evaluation of high risk women in this part of the world.

Proper training of OB/Gyn residents and radiologists on Doppler scan monitoring of fetuses at risk for better surveillance and prompt intervention is absolutely necessary.

**P0183**

**DEVELOPMENT OF SYMPHYSIO FUNDAL HEIGHT CHART/CURVE**

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**Objectives:** To develop a symphysio fundal height of pregnant women from 20 weeks of pregnancy onwards; and to find out the relationship of fundal height with different variables.

**Method:** A cross-sectional hospital based study was conducted on 159 patients with gestation age less than 20 weeks at entry in the Department of Obstetric and Gynaecology, Shaheed Suhrawardy Medical College & Hospital, Shere-e Bangla Nagar, Dhaka, Bangladesh.

**Results:** Majority of the patients belongs to 20–30 years age groups where nearly 31.2% of the pregnant women didn’t receive any antenatal checkup. Multiparous was predominant and more than one third (34.6%) of the study patients height belonged to 1.51–1.60 meters. The mean± SD gestational age was 39.2±1.4 weeks with range from 28 to 41 weeks. Low birth was found 17.0% and the mean± SD birth weight was 2.8±0.4 kg with range from 1.9 to 3.8 kg. The rate of growth of SFH was approximately 0.5 cm per week from 24 weeks to 36 weeks and thereafter 5–6 mm per week till 40 weeks.

**Conclusions:** Patients with higher socio-economic class had higher symphysio fundal height. SFH is less in younger subjects. SFH increases with increased height, weight, gestational age, gravidity of mothers and birth weight of the baby.

**P0184**

**FETAL DEATH – A PILOT STUDY OF 31 CASES OBSERVED IN BAIXADA FLUMINENSE, RIO DE JANEIRO, BRAZIL.**

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**Objectives:** Asses the profile of fetal death in Baixada Fluminense – Rio de Janeiro – Brazil.

**Method:** A pilot study with a cross sectional design. The population is a sample from 97 fetal death observed in 2014 at the Hospital Estadual da Mãe, Mesquita, Rio de Janeiro – Brazil. The unit is a low risk maternity with a rate of 1.3% of fetal death. The assisted population is a low-income and low-schooling. The prenatal care is provided most in primary care units related to the maternity. The data were collected from medical records and typed into a database built using the Epilinfo program, which was used to analyse them.

**Results:** 31 cases. 32% adolescent, 55% between 20–34 years, and 13% 35+ years. The schooling was fundamental in 48% and high school in 52%. 78% had no steady partner. Not access to prenatal care in 13%. Gestational age was from 22–27 weeks in 10% and 90% from 28–41 weeks. Syphilis was present in 29%, 89% of them were not treated. Pre eclampsia in 10%, diabetes in 3% and urinary infection in 13%. 15% of PROM, 13% were in labour. Vaginal delivery in 81% and cesarean section in 19%. The etiology of fetal deaths was 51% undetermined, 39% maternal.

**Conclusions:** Although the unit care is a low risk maternity, the population is a high-risk one, due its low-schooling, low-income and not optimal prenatal care. Most of this fetal deaths could be avoided with a better quality prenatal care. There was no identification of fetal causes due to small sample size. We regret the unavailability of pathology lab for palcenta and fetal tests.

**P0185**

**ASSESSMENT OF LABOR USING A NEW TYPE PARTOGRAM COMPARED TO THE CLASSICAL FISHER PARTOGRAM**

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**Objectives:** To assess the quality of a new type partogram used to monitor labor.

**Method:** We compared efficacy using two types of partograms. The first was the classical WHO partogram (group A) and the second a new type in which we estimated and reported the sub of cervical dilatation and the position of the descending head (group B).

**Results:** It was noted that there was a decrease of the duration between the initiation of active phase (a.p.) of labor (I) and the delivery time (p<0.001, A: mean:318.4±10.4 min, B: 246.56±8.28 min), and observed initiation in the acceleration stage (a.s.) of the (a.p.) in the first phase (f.p.) of I (p<0.001, A: 108.73±5.29 min, B: 69.96±4.99 min), shorter duration of the a.s. of the a.p. in the (f.p.) of I (p<0.001, A: 136.93±4.79 min, B: 91.89±4.04 min) and early initiation in the second phase of I in Group B.

**Conclusions:** The new partogram is more helpful in the recognition of the initiation of the acceleration stage during the active phase of labor and in the timely use of appropriate actions in order to achieve a safer delivery.

**P0186**

**ANTEPARTUM FETAL EVALUATION IN PREGNANCIES COMPLICATED BY INTRAUTERINE GROWTH RESTRICTION (IUGR) USING LEFT MYOCARDIAL PERFORMANCE INDEX (TIE INDEX), FETAL BIOPHYSICAL PROFILE (BPP) AND DOPPLER CHANGES IN MIDDLE CEREBRAL ARTERY AND THEIR RELATION TO PERINATAL OUTCOME**

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**Objectives:** The study aims to compare between performance of fetal myocardial performance index, fetal biophysical profile (BPP), and and doppler changes in umbilical artery and middle cerebral artery in pregnancies complicated by sever pre-eclampsia (PET) and their relation to perinatal outcome.

**Method:** The study included 146 pregnant women with sever PET (study group) and 56 healthy pregnant women (control). In all fetuses, The MPI, BPP and the resistence index (RI) in the umbilical artery and middle cerebral artery were measured within one week of delivery. The perinatal outcome measures taken were: Apgar score at 5-min, birth weight, cord arterial pH value, admission to NICU and perinatal death.

**Results:** In IUGR fetuses with abnormal high MPI (>0.59) the perinatal outcome measures were statistically lower than in IUGR fetuses with normal MPI and the control. In pre-eclampsia without IUGR, The mean MPI was not stastically higher than control and the perinatal...
outcome measures not different from control. There was positive correlation between MPI and RI in umbilical artery, negative correlation between MPI and RI in middle cerebral artery. Also, the MPI was found to have higher performance than BPP as regard sensitivity, specificity, positive predictive value, negative predictive value.

Conclusions: The fetal MPI was found to have slightly higher diagnostic accuracy than BPP in predicting neonatal outcome in pregnancies complicated by IUGR. It is easy, simple, take short time. But in pre-eclamptic patients without IUGR, the MPI was not elevated than the control and has no relation to neonatal outcome.

P0187
EVALUATION OF THE REPRODUCIBILITY OF THE REVISED FIGO GUIDELINES FOR INTRAPARTUM FETAL MONITORING
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Objectives: Visual analysis of cardiotocographic (CTG) tracings is subject to a well-known poor reproducibility. The aim of this study was to evaluate interobserver agreement on CTG interpretation when using the 2015 revised FIGO guidelines for intrapartum fetal monitoring.

Method: A pre-existing database was used to sequentially select 151 intrapartum tracings acquired with a fetal electrode, with more than 60 minutes duration, and less than 15% signal loss. These tracings were presented to six clinicians, three with more than 5 years and three with 5 or less years of experience in the labour ward. Observers were asked to evaluate basic CTG features: baseline, variability, accelerations, decelerations, sinusoidal pattern, tachysystole, and to classify tracings as normal, suspicious or pathologic, according to the revised FIGO guidelines. Agreement was evaluated by the proportions of agreement (Pa) with 95% confidence intervals (95% CI [in brackets]).

Results: Pa values for baseline were 0.85 [0.82–0.90], for variability 0.82 [0.77–0.85], accelerations 0.72 [0.68–0.75], tachysystole 0.77 [0.74–0.81], overall decelerations 0.92 [0.90–0.95], variable decelerations 0.62 [0.58–0.65], late deceleration 0.63 [0.59–0.66], repetitive decelerations 0.73 [0.69–0.78], and prolonged decelerations 0.81 [0.77–0.85]. For overall agreement on CTG classification Pa was 0.60 [0.56–0.64], for the normal classification 0.67 [0.61–0.72], for suspicious 0.54 [0.48–0.60] and for pathologic 0.59 [0.51–0.66]. There were no statistically significant differences in interobserver agreement according to the level of expertise, except for the identification of accelerations where agreement was better in the more experienced group.

Conclusions: A good interobserver agreement was found with the revised FIGO guidelines, both in identification of the majority of CTG features, and in overall tracing classification. Observer experience did not play a major role in interobserver agreement.

P0188
QUANTITATIVE COMPARISON OF ENTROPY ANALYSIS OF FETAL HEART RATE VARIABILITY RELATED TO THE DIFFERENT STAGES OF LABOR
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Objectives: To evaluate whether the entropy indices of FHR are different according to labor progression.

Method: A retrospective comparative study of FHR recordings in three groups: 280 recordings in the second stage of labor before vaginal delivery, 31 recordings in the first stage of labor before emergency cesarean delivery and 23 recordings in the pre-labor before elective cesarean delivery. Approximate entropy (ApEn) and sample entropy (SampEn) for the final 2000 RR intervals.

Results: The median ApEn and SampEn for the 2000 RR intervals showed the lowest values in the second stage of labor, followed by the emergency cesarean group and the elective cesarean group for all time segments (all P < 0.001). Also, in the second stage of labor, the final 5 min of 2000 RR intervals had a significantly lower median ApEn (0.49 vs. 0.44, P = 0.001) and lower median SampEn (0.34 vs. 0.29, P b 0.001) than the initial 5 min of 2000 RR intervals.

Conclusions: Entropy indices of FHR were significantly different according to labor progression. This result supports the necessity of considering labor progression when developing intrapartum fetal monitoring using the entropy indices of FHR.

P0189
PATHOGENESIS, DIAGNOSIS AND PERINATAL OUTCOME IN CRITICAL STATE OF THE FETUS
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Objectives: In order to develop modern approaches to screening and management of pregnant women with critical state of the fetus prospective survey of 816 pregnant women, pregnancy and childbirth who used new technology assessment of mother and fetus, and rational choice of timing and method of delivery.

Method: Ultrasound examination was performed during pregnancy: at 11–13 and 16–18 weeks – ultrasound screening I and II trimesters; further in the II and III trimester – Ultrasound fetometry, placentography, quality assessment and the amount of amniotic fluid, blood flow Doppler study in uterina arteries, umbilical artery, fetal aorta, middle cerebral artery, CTG-monitoring. We investigated also the genetic polymorphisms of hereditary thrombophilia, performed the measurement of VEGF-R1.

Results: For critical state of the fetus there was diagnosed mainly severe intrauterine growth retardation (47.62%). Hypoxia according to CTG study identified 100% of cases, in 19.05% – heavy. Severe IUGR is accompanied by severe hemodynamic compromise, fetal-placental blood flow: the zero diastolic blood flow in umbilical artery was detected in 45.7%, the centralization of blood circulation of the fetus developed in 80.7% of cases, of which 45% is accompanied by disturbances in the venous duct and/or the inferior vena cava of the fetus that says about the depletion of its compensatory possibilities.

Conclusions: Differentiated approach to obstetric care and choice of tactics depending on the severity of placental insufficiency allowed 1.5 times – in a state of moderate and severe asphyxia, 1.75 times – the need for resuscitation, 1.8 times – the frequency of hypoxic-ischemic lesion of the central nervous system, 2.6 times – perinatal losses during this pregnancy complications.

P0190
FETAL LOSS SYNDROME: APPROACHES TO MANAGEMENT OF PREGNANT WOMEN
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Objectives: In order to develop an algorithm for pregnant women with a history of antenatal fetal death and delivery plan was performed a prospective survey of 35 pregnant women with a history of fetal losses. Antenatal fetal death occurred in 20–28 weeks to 28.6% in 29–36 weeks of –34.3% in the 37–41 weeks of –37.1%. In 96.7% of cases pregnancy, which ended fetal losses was complicated: 37.4% – long-term threat of termination, 27.4% – preeclampsia, 37.1% – pla-
cental insufficiency. In 75% during pregnancy laboratory markers of the DIC chronic syndrome were detected, in 43.7% – antiphospholipid syndrome, in 30.6% – infections.

Method: The comprehensive study of the state of vaginal biocenosis was conducted. The investigation of the blood coagulation system, prenatal screening study, echographic and Doppler study fetoplacental system, Doppler study, CTG-monitoring, measurement of VEGF-R1 were performed.

Results: According to the results of the autopsy stillborn and morphological study of placentas revealed: chronic placental insufficiency (PI) – 92%, inflammatory changes in the future – 34% of umbilical cord pathology – 22.6%, fetal malformations – 19.4%, IUGR – in 48.8%. Differentiated approach to the prevention of complications of pregnancy and can significantly reduce the incidence of complications of pregnancy. Placental insufficiency occurred in 1.33 times less likely (40% vs. 53.3%), only in the form of compensated (100%).

Conclusions: According to the developed algorithm of pregnancy timely surgical delivery by cesarean section was performed 1.6 times more likely to routinely (96.3% vs. 60%). Thus, good timing and mode of delivery in pregnant women undergoing AFD, can reduce the risk of recurrent reproductive losses and perinatal morbidity.

P0191
ANTENATAL METABOLIC PROGRAMMING DURING THE HIGH-RISK PREGNANCY
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Objectives: Aim of the study was to determine the endocrine status of the fetus in uncomplicated pregnancy and placental insufficiency of varying severity. Complex examination (clinical, echographic, Doppler, hormonal) 90 pregnant women with uncomplicated pregnancies and 230 – with placental insufficiency of varying severity.

Method: We studied the ultrasound morphology (size of shares, circumference, echostucture, echogenicity) and peculiarities of organ blood flow of fetal thyroid and adrenal glands of the fetus during uncomplicated pregnancy and with placental insufficiency of varying severity.

Results: Uncomplicated pregnancy observed a linear increase in fetal thyroid: a circle with 21.35±2.9 mm up to 61.32±5.37 mm, width – from 88.9±1.5 to 26.11±2.48 mm. The severity of deflection depends on severity of PI: with compensated PI the circle of the thyroid decreased only 34–36 weeks, 10.8%; subcompensated in 34–36 weeks – circumference decreased by 30.9%. When there is compensated PI adrenal growth rate was slow compared to the control group at 17.9–21.3% width, % height 16.7–27.6% and at the PI subcompensated – 23.8–25.3% for width, height 9.7–35.2% and 24–33.4% in thickness.

Conclusions: All pregnant women who are at risk for the development of PI should be carried out complex dynamic ultrasound and Doppler examination, including measurement of the size of the thyroid gland of the fetus and Doppler study of blood flow in the inferior thyroid arteries of the fetus, as well as evaluating the size and characteristics of hemodynamic fetal adrenal glands. Newborns of mothers with pregnancy which flow phenomena PI, IUGR have congenital hypothyroidism they should be carried out additional inspection and correction of violations.

P0192
MATERNAL AGE AND CONGENITAL ANOMALIES IN PROF. KANDOU GENERAL HOSPITAL MANADO, NORTH SULAWESI (4 YEARS REVIEW)
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Objectives: To determine the incidence of congenital anomalies and the correlation between maternal age and the type of congenital anomaly.

Method: This is a analytic retrospective study. The research data derived from the medical records of patients underwent labor at the Prof. Dr. R. D. Kandou General Hospital Manado from January 01, 2011 until December 31, 2014. Statistical analysis using Chi Square method.

Results: The incidence of congenital anomalies was 1.85% from 354 cases (19.169 labors). It was mostly found in the cardiothoracal system (29.38%) and the most found was VSD (14.41%), whereas multiple anomaly was seen in 40 cases. The maternal age group giving birth to newborns with congenital anomalies, <20 years old (10.73%), 20–35 years old (66.38%) and >35 years old (22.88%). The majority of congenital anomaly found in the group age <20 years old is VSD and >35 years old is Down syndrome (13.58%). There were a correlation between the maternal age and the incidence of congenital anomalies (p<0.05).

Conclusions: Congenital anomaly had a correlation with maternal age and it mostly found in the cardiothoracal system.

Assisted Reproduction

P0193
FRESH VERSUS FROZEN EMBRYO TRANSFER AS REGARDS PREGNANCY OUTCOME: A RETROSPECTIVE STUDY
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Objectives: To compare implantation rates and pregnancy rates following fresh versus frozen embryo transfer.

Background: Human embryo cryopreservation had become very important part of assisted reproductive technology program as it maximize utilization rate of single IVF cycle we compare the fresh embryo transfer to frozen thawed embryo transfer as regards pregnancy rate, implantation rate.

Method: Statistical analysis of retrospective date of 200 women undergone general ivf program from first of January 2009 to end of December 2011, women divided into two groups each group include 100 women, first group (GI) received fresh embryo transfer, second group (GII) received frozen–thawed embryo transfer. Comparison between the chemical pregnancy rate,clinical pregnancy rate and implantation rate in both groups was done.

Results: The chemical pregnancy rate was insignificant different among both groups, the first group (GI) 57.1%, while in the second group (GII) 42.9%, p-value 0.09 (>0.05).

Rate of single pregnancy was significantly higher in the first group 64.9% than in the second group 35.1%. Rate of twins was significantly higher in the second group (GI) 75%, than in the first group 25% (GI). Rate of triplets was 10% in first group while there was no reported triplets in second group. (P value 0.001). Implantation rate was (24.8%,20%) in first group (GI) and second group (GII) respectively.

Conclusions: A program of embryo freezing and performing frozen embryo transfer is cost effective and should be adopted by all ivf center to improve utilization rate of single cycle, as the pregnancy rate and implantation rate is almost equal to fresh embryo transfer.
**P0194**

**EFFECTS OF REDUCED TRACE ELEMENTS CONCENTRATIONS IN FOLLICULAR FLUID AND EXTENDED LIPID PEROXIDATION ON FEMALE INFERTILITY AND THE OUTCOME OF IN VITRO FERTILIZATION**

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**Objectives:** The purpose of this study was to (1) determine the follicular fluid zinc, selenium and malondialdehyde acid (MDA) concentrations of IVF patients and to (2) evaluate their impact on the early embryonic development.

**Method:** Follicular fluid samples were recruited from 190 female partners (24–44 years) of couples undergoing IVF. Patients were divided into four groups. Group I consisted of women with idiopathic infertility and they were considered as controls (n=35), group II composed of women with tubal disease (n=50), group III consisted of 50 women with endometriosis and group IV contained 55 patients from couples with male factor of infertility. For all the experiments, flame and furnace atomic absorption spectrophotometry were adopted for zinc and selenium determination respectively. The index of lipid peroxidation was measured by thiobarbituric acid reaction method.

**Results:** In comparison between controls (group I) and patients groups (III, IV), zinc concentration showed significant increase (P<0.001) in controls groups. Selenium concentrations were significantly higher (P<0.001) in control group compared to others groups. However, women with endometriosis showed highly significant decrease for all fecundity parameters. Correlations between non-enzymatic antioxidants and IVF outcome were positive and strongly significant. Meanwhile, there are significant and negative correlations noted between MDA levels and the fecundity parameters, but it was highly significant with the embryo quality (P<0.001).

**Conclusions:** To summarize, it has been shown in this study that there are detectable levels of zinc and selenium in human follicular fluid and there is evidence of antioxidant activity of these trace elements. It was proved whether the non-enzymatic antioxidant status and the lipid peroxidation in the follicular microenvironment may play a role in the process of gametogenesis and fertilization and they would be the best predictors of IVF outcome. Future research may include the studies using oxidative markers and antioxidant system on the large scale.

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**P0195**

**COMPARISON BETWEEN INTRAUTERINE INSEMINATION WITH OVULATION INDUCTION VERSUS NATURAL OVULATORY CYCLE IN MALE FACTOR OF INFERTILITY**

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**Objectives:** To compare between intrauterine insemination with natural ovulatory cycle and intrauterine insemination with controlled ovarian hyperstimulation in cases of male factor of infertility and its effect on clinical pregnancy rate.

**Method:** Forty eight women undergoing intrauterine insemination and fulfilling the required criteria was devided into two groups: Group I: 24 women underwent intrauterine insemination and subjected to insemination after natural cycle with no ovarian hyperstimulation with detection of ovulation using urinary LH detection kit daily from 11th day of cycle and insemination done the next day after positive test. Group II: 24 women underwent intrauterine insemination were subjected to controlled ovarian hyperstimulation with HMG using step down protocol and insemination done 36 h after HCG. The primary outcome is clinical pregnancy rate.

**Results:** The clinical pregnancy rate was higher in ovulation induction with intrauterine insemination group (25%) than natural cycle intrauterine insemination group (16.7%) in case of mild to moderate male factor of subfertility but this difference was not statistically significant.

**Conclusions:** In case of mild to moderate male factor of subfertility, there is no statistically significant difference regarding clinical pregnancy rate between ovulation induction with intrauterine insemination group and natural cycle intrauterine insemination group.

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**P0196**

**DOES PSYCHOTHERAPY IMPROVE SUCCESS RATES OF IN VITRO FERTILISATION? SYSTEMATIC REVIEW**

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**Objectives:** In vitro fertilisation (IVF) success rates have improved but livebirth rates remain less than 50% even in patients who are young, are of proven fertility and have a normal ovarian reserve. Alternative therapies such as Acupuncture have been advocated as means of improving outcome but in 2010 the British Fertility Society revised their view on this intervention following a systematic review which indicated no benefit in IVF. Psychotherapy is distinctly different but has been subject to less scrutiny and we sought to review the published literature in this area. Could psychotherapy be beneficial in improving the IVF success rates?

**Method:** The databases AMED, CINAHL, PsychINFO, Cochrane, Medline via Pubmed, NHS Evidence, NICE, UpToDate were searched systematically for papers in English between 1978 and 2014. The participants were women undergoing IVF who received psychotherapeutic intervention of any sort. The outcome measure was the success rate of IVF treatment. A total of 2068 studies were identified and 5 constituted the material for the review.

**Results:** 3 randomised control trials showed (1) CBT significantly improving the success rate, (2) non-significant but positive effect of hypnosis compared to diazepam on IVF success rate, 1 poorly designed controlled study (4) showed that hypnosis significantly improves the success rate and 1 cohort study (5) showed that psychotherapy does not influence pregnancy rate.

**Conclusions:** The findings from this review do not offer any evidence of psychotherapy increasing IVF success rate. This is mostly attributed to the poor design of the studies and overall conflicting results. The impact if any of psychotherapy would require a well-designed and adequately powered study to detect an improvement in livebirth rate.

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**P0197**

**EFFICIENCY OF PRE-IMPLANTATION GENETIC SCREENING USING ACGH METHOD, IN PATIENTS OF ADVANCED REPRODUCTIVE AGE**

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**Objectives:** Subject of study. Female patients over 40 years old, who underwent fertility treatment, using IVF/ICSI methods with pre-implantation genetic screening.

**Introduction:** Mainly the ART programs fails due to embryo chromosomal abnormalities in women with advanced reproductive age. Pre-implantation genetic screening (PGS) allows to detect chromosomal abnormalities before embryo transfer which is particularly important for patients of advanced reproductive age.
Method: The research took place in Federal State Budget Research Center for Obstetrics, Gynecology and Perinatology, Russian Federation, from April to December 2014. The pre-implantation genetic screening using aCGH method (Agilent, USA) was carried out on 72 blastocysts of 29 patients, 40–47 years old. The embryos were frozen for the time of research using the method of vitrification. The embryos were transferred during the following cryonic cycles.

Results: The result was obtained for 68 blastocysts (94.4%). Only 27/68 (39.7%) embryos were euploid and 41/68 (60.3%) embryos had chromosomal abnormalities. 16/29 (55.1%) patients had all embryos with chromosomal abnormalities. The embryo transfer was cancelled for these patients. The transfer of frozen embryos was performed in 13 patients. Biochemical pregnancy was registered in 3/13 patients (23.0%) and clinical pregnancy in 2/13 patients (15.3%).

Conclusions: The results indicate the efficiency of PGS using aCGH method to choose euploid embryos in female patients over 40 years old. The research was supported by President’s of the Russian Federation grant MD-6043.2015.7.

P0198
SUBCHORIONIC HEMATOMA OCCURS MORE FREQUENTLY IN IN VITRO FERTILIZATION PREGNANCY
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Objectives: Obstetric complications occur more frequently in pregnancies after in vitro fertilization (IVF). We attempted to determine the correlation between subchorionic hematoma and IVF pregnancies.

Method: We analyzed 194 pregnancies achieved by infertility treatment between January 2008 and February 2012 at our hospital. Among these, 67 were achieved by IVF and 127 by non-IVF approaches. We compared the frequency of subchorionic hematoma between the groups and examined the risk factors for subchorionic hematoma in the IVF group.

Results: No significant differences regarding age and the number of uterine surgery were observed between the groups. The duration of infertility was longer, and parity and the rate of luteal support were higher in the IVF group. The frequency of subchorionic hematoma was significantly higher in the IVF group (22.4%) than that in the non-IVF group (11%) (P=0.035). Univariate analysis in the IVF group demonstrated that frozen-thawed embryo transfer (OR, 6.18; 95% CI, 1.7–22.4); parity ≥ 1 (OR, 3.67; 95% CI, 1.0–13.2) and blastocyst transfer (OR, 3.75; 95% CI, 1.1–13.3) were risk factors for the subchorionic hematoma.

Conclusions: The frequency of subchorionic hematoma is high in IVF pregnancies, and frozen-thawed embryo transfer, parity ≥ 1 and blastocyst transfer may contribute to subchorionic hematoma onset.

P0199
PREVALENCE OF ABNORMAL UMBILICAL CORD INSERTIONS: A COMPARISON OF TERM SINGLETON ART AND NON-ART PREGNANCIES
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Objectives: Abnormal umbilical cord insertion (i.e., velamentous or marginal insertion) sometimes results in serious obstetric complications. The reported adverse outcomes include placenta previa, fetal growth restriction, non-reassuring fetal status requiring an emergency Cesarean section, and fetal exsanguination due to the rupture of vasa previa. This study was conducted to investigate whether pregnancies obtained by assisted reproductive technologies (ART) influence the prevalence of anomalous umbilical cord insertions.

Method: We reviewed the records of 7015 consecutive singleton, term labor and delivery cases in our clinic between the study period of January 2010 to August 2014, including personal details, obstetric history, details of infertility treatment, and insertion site of the umbilical cord. They were categorized according to their conception method (Group A: ART pregnancies, n=276, Group B: non-ART pregnancies, n=6739). Abnormal cord insertion was divided into two categories: velamentous insertion (VI) and marginal insertion (MI). Adjusted odds ratio, 95% confidence intervals (CI), and significance of the odds ratio were calculated for the conditions of interest.

Results: The prevalence of abnormal cord insertion was 20.7% (VI: 4.4%, MI: 16.3%) in Group A, and 6.5% (VI: 0.6%, MI: 5.9%) in Group B. The adjusted odds ratio for delivery with VI in Group A as opposed to Group B was calculated as 5.3 (95% CI: 2.6 – 10.8), P<0.001. The adjusted odds ratio for delivery with MI in Group A as opposed to Group B was 2.7 (95% CI: 1.9 – 3.9), P<0.001.

Conclusions: 1) These findings suggest that the ART procedures have a positive correlation on the incidence of abnormal cord insertion (esp. velamentous insertion). 2) ART-conceived cases should be more proactively screened and assessed for insertion site of the umbilical cord during routine obstetric ultrasound examinations, in addition to other already-known ART-associated risk factor assessments, to improve their perinatal outcomes.
Conclusions: Findings of the current study revealed that culturing immature human oocytes with GCs prior to ICSI procedure improves the maturation rate and embryo development.

P0201
ENDOMETRIAL SCRATCHING IMPROVES CLINICAL PREGNANCY RATE AFTER INTRAUTERINE INSEMINATION IN PATIENTS WITH UNEXPLAINED INFERTILITY
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Objectives: Evaluation of the effect of endometrial scratch performed in the preceding cycle on the pregnancy rate after intrauterine insemination (IUI) in patients with unexplained infertility.

Method: Two hundred patients with unexplained infertility that were planned to have IUI at Minia Infertility Research Unit, Minia, Egypt in the period between June 2012 and May 2014 were randomized into two groups. In the study group (n=100), endometrial scratching was performed once on day 21 of the preceding cycle to the IUI cycle with pipelle endosampler. In the control group (n=100), there was no intervention.

Results: The clinical pregnancy rate was significantly higher in the scratch group as compared with the control group (38% vs. 18%, P=0.026, CI=95%). The number need to treat to achieve one more pregnancy was five (NNT=5). There was no significant difference between the two groups regarding demographic features, ovarian stimulation protocols, semen parameters of the male partners or number of follicles on day of human chorionic gonadotropin (HCG) administration.

Conclusions: Endometrial scratching in the preceding cycle to the IUI cycle is recommended for cases with unexplained infertility as it is associated with significant improvement of clinical pregnancy rate.

P0202
TO EVALUATE THE ROLE OF EMBRYOGLUE AS TRANSFER MEDIUM IN THE OUTCOME OF FRESH NON DONOR IN VITRO FERTILISATION CYCLES: A PROSPECTIVE CASE CONTROL STUDY
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Objectives: To evaluate the role of EmbryoGlue as an adjunct to the transfer medium in improving the implantation rates in fresh Non Donor IVF cycles.

Method: Ethical approval was taken from the Institutes Ethics Committee prior to initiation of study. Type of study: Prospective case control clinical trial. Study duration: The study was conducted over a period of 3 months between March and May 2014. In 42 women undergoing IVF/ICSI treatment embryos were transferred into 50 μL of EmbryoGlue for 10 minutes prior to transfer inside uterine cavity. In the control group (n=42) embryos were transferred in conventional blastocyst culture medium. Statistical analysis was performed using SPSS IBM version 19.0.

Results: The clinical pregnancy rate in the embryo glue group was 7% higher than the control group. The difference, however, was not statistically significant. Also, no improvement in implantation rates were observed with the embryo glue. But significant difference (0.04) in clinical pregnancy rate was observed with the embryo glue in patients with previous IVF failure. In the embryo glue group, 50% patients (6/12) with previous IVF failure had successful implantation. However, none of the patients with previous implantation failure in the control group (0/11) could achieve pregnancy.

Conclusions: It is still too premature to conclude the role of EmbryoGlue in IVF-ET cycles with good prognosis patients however in women with history of recurrent implantation failure addition of Embryogluue has shown improvement in implantation rates. A large randomized study is required to confirm the observations.

P0203
OCYTE MORPHOLOGY AND ITS POSSIBLE ASSOCIATION WITH SUBSEQUENT TREATMENT OUTCOME IN ENDOMETRIOSIS PATIENTS: A MATCHED CASE-CONTROL STUDY
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Objectives: To describe detailed oocyte morphology in endometriosis patients, compare it with an endometriosis-negative control group, and evaluate its possible association with ART and treatment outcome.

Method: Patients were matched according to AMH, female age, previous treatment cycles, and method of fertilization. A total of 23 patients each were treated with conventional IVF. Endometriosis was staged according to the revised ASRM guidelines of 1997. With respect to oocyte morphology in ICSI it was focussed on intra- and extracytoplasmic dysmorphisms.

Results: Patients with endometriosis had a significantly lower rate of mature oocytes (P<0.05) as well as morphologically normal oocytes (P<0.0001). In particular, brownish oocytes (P<0.01; stage I-IV) and the presence of refractile bodies (P<0.0001; stage IV) were found to be increased. Endometriosis IV had significantly worse quality oocytes than stages I-III (P<0.01). Fertilization was significantly reduced in conventional IVF but not ICSI (P<0.05). This was due to lower fertilization rates in endometriosis III-IV as compared to I-II (P<0.05). No difference was observed with respect to rates of implantation, clinical pregnancy, miscarriage, live birth, and malformation. Neonatal outcome was comparable between endometriosispositive and negative groups.

Conclusions: Endometriosis patients, particularly those of stage IV, present lower quality oocytes. Based on the present data, IVF should not be first choice treatment option in moderate to severe endometriosis (III-IV). Once fertilized, no impairment of further preimplantation embryo development and pregnancy outcome right up to healthy live birth rate has to be expected.

P0204
OUTCOMES OF PREGNANCY FROM ASSISTED REPRODUCTION TECHNIQUES IN TUSCANY
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Objectives: Describing those mothers who used assisted reproduction techniques (ART), the main techniques used, socio-demographic characteristics, the type of delivery and some neonatal outcomes such as low birth weight (<2500 grams) and preterm births (gestational age <37 weeks).

Method: Analysis of Birth Assistance Certificate from 2011 to 2013 in the Tuscany region (Italy). Comparison of pregnant women who used ART and those who did not use it.

Results: In Tuscany, women who gave birth after ART increased from 1.1% in 2001 to 2.7% in 2013, for a total of 2,170 deliveries in the period 2011–2013. The proportion of deliveries from ART increases with the increasing age of the women: 1.2% among women under 35 and 20.4% among women over 43. Multiple deliveries represent 23.0% of pregnancies through ART. Caesarean section was performed in 43.8% of the deliveries from ART. Live births after ART were 2,698 (3.1% of total live births) with a higher proportion of low birth weight and preterm babies, the 32.5% and 30.0% respectively.

Conclusions: The constant increase in the average age of delivery and the high proportion of multiple births lead to a significant impact of
CS, low birth weight, and preterm births. Therefore it becomes increasingly important to monitor the use of ART, both for the health of the woman and the newborn, and for the use of highly specialized resources required.

**P0205**

ARE BLOOD GROUPS ASSOCIATED WITH THE OUTCOME OF IN VITRO FERTILIZATION TREATMENT?

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**Objectives:** There has been a controversial reports about the correlation between blood groups and ovarian reserve. Since all ovarian reserve testing are performed to estimate the response of ovaries to exogenous gonadotrophin treatment, we utilized the number of follicles grown and the number of oocytes obtained following COH to correlate to blood types. To the best of our knowledge, there have been no previous studies published investigating treatment response and its correlation with blood groups. The aim of our study was to assess the correlation of certain blood groups with ovarian reserve and response to the treatment.

**Method:** Retrospective chart review, done at tertiary care centre, all women less than 40 year sold who came to the clinic as new patients and started an IVF treatment cycle within 2 years were included. We had total of 424 patients, they had total of 566 IVF/ICSI cycles. Patients were divided into 4 groups according to their blood type. All groups were compared for early follicular phase FSH level, antral follicle count (AFC), and various COH response parameters and embryological data. Pregnancy rate were compared for all groups.

**Results:** Group O blood type was the most common among our patient population 53.5%, while AB blood type was seen only in 3.5%. The four groups had similar patient’s age, and causes of infertility. FSH level, and AFC were similar across the groups. No difference was noted among the four groups in regard to the patient’s mHMG dose, duration of stimulation, and the numbers of follicles > 10 mm on the day of hCG injection. All groups had similar number of the oocytes retrieved, Fertilization rate, embryo quality, and number of embryos transferred. The pregnancy rate was similar among all groups.

**Conclusions:** With the limitation of our study being retrospective study, this large set of data did not show any significant association between any blood type and ovarian reserve or ovarian response during IVF treatment.

**P0206**

BIOPHYSICAL PROFILE OF WOMEN SEEKING ASSISTED CONCEPTION AT A FERTILITY CENTER IN NIGERIA

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**Objectives:** To describe the pattern of the biophysical characteristics of women seeking assisted conception and the possible impact this can have on their management.

**Method:** An observational descriptive study was carried out at the Nordica Fertility Centre, Nigeria between April 2003 and February 2012. the records of 1768 consecutive female clients who sought assisted conception at the clinic were reviewed and analysed using STATA 13. significance was set at a P-value <0.05.

**Results:** The means (± SD) of their age (years), BMI (kg/m²) and duration of infertility at presentation were 35.7 (5.5) years, 29.1 (12.1) and 8.0 (14.5) respectively. 45.5% clients had at least one previous uterine evacuation, 21.0% with previous myomectomy and 11.2% with previously attempted IVF. 70.3% presented with secondary infertility. 0.7%, 3.1% and 2.4% were diabetic, hypertensive and HIV-positive correspondingly. Fibroid was seen at scan among 30.4% clients, PCOS was diagnosed in 8.5% and previous endometriosis occurred in 1.9%. The mean (± SD) FSH levels were 7.8 (11.3) mIU/ml. The mean (± SD) sperm count of partners was 23.1 (23.3) million/ml while the mean (± SD) motility was 38.7 (20.5).

**Conclusions:** The profile of clients presenting for assisted conception may reveal important information that can be useful in their management and in public enlightenment in a bid to further improve outcome of assisted reproduction.

**P0207**

CONGENITAL MALFORMATIONS IN CHILDREN BORN AFTER ART INCLUDING IMPRINTED GENE DEFECTS

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**Objectives:** Several meta-analyses indicated an increase risk of 30% of major malformations in children born after IVF or ICSI compared with spontaneous pregnancies. Imprinting disorders were identified with increased risk of Angelman, Beckwith-Wiedemann and Prader Willy Syndromes in ART children as compared with natural conception neonates. Spermatooza chosen for ICSI may have morphological anomalies undetectable at X400 magnification. However, using high magnification - X6300 by IMSI procedure (Intracytoplasmic Morphologically Selected Sperm Injection) have shown to increase blastocyst and pregnancy rates by preselection of normal nuclear morphology sperm. This study compared major congenital malformations in 235 ICSI pregnancies with 235 IMSI pregnancies.

**Method:** The study was conducted in several IVF units in Israel after the approval of local ethical committee between the years 2010–2014. The cohorts included 235 ICSI and 235 IMSI pregnancies. The embryo transfer was on day 3 or day 5. The age range was between 25–38 years. Spermatozoa were selected by nuclear morphology according Bartoov’s criteria (Bartoov et al. 2006). At the first attempt ICSI was performed in most cases. IMSI was introduced in cases of very severe sperm morphology or in case of ICSI failure. The technology of IMSI was performed as described (Bartoov, Feldberg et al. 2006).

**Results:** From 235 pregnancies in each cohort 320 fetuses were analyzed in each group. After spontaneous abortions, 310 fetuses remained in IMSI group and 308 fetuses in ICSI cohort. In 2.9% in IMSI group and 2.6% in ICSI group abortion was induced due to major malformations. 299 newborns were examined in IMSI and 298 in the ICSI populations. 4 babies (1.3%) in the IMSI group and 16 (5.3%) in the ICSI cohort were born with major malformations. The total number of aborted fetuses and newborns with major malformations, was 13 (4.2%) in IMSI and 26 (8.4%) in the ICSI population (p <0.01).

**Conclusions:** The aim of this study was to compare the birth defects in children born after Intracytoplasmic Sperm Injection (ICSI) and Intracytoplasmic Morphologically Selected Sperm Injection (IMSI). Our data indicate that IMSI provides significantly less birth defects that ICSI and emphasizes the impact of sperm head and nuclear morphology defects on congenital malformations of the neonates. Large scale studies on the prevalence of IMSI-associated birth defects and long follow up of the children are needed in order to estimate the risks of specific malformations.
P0208
EVALUATION OF DIFFERENT OVARIAN PROTOCOLS (LONG GNRH AGONIST PROTOCOL VERSUS GNRH ANTAGONIST PROTOCOL) ON OOCYTE, EMBRYO QUALITY AND PREGNANCY OUTCOMES. A RETROSPECTIVE STUDY AT RAED FERTILITY CENTER (RFC), SYRIA
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Objectives: To compare efficacy of long agonist (AGO) protocol vs. antagonist (ANT) protocol in IVF patients at RFC, a center located in Syria, Middle East.

Even though this is a well-covered subject, there are no similar studies in Syria: no insurance coverage, centers are located in 4/13 cities with added expenses for treatment (travel, accommodation, off work).

There is lack of guidelines for number of transferred embryos in whole Middle East area.

This study was performed under Syrian IRB approval and all patients signed informed consent. Study was done at Eastern Virginia Medical School (EVMS) for Master degree.

Method: AGO: OCP, Luprolide 0.1 mg started CD21 previous cycle, then 0.05 mg on CD 2 (after LH and Estradiol levels) and Gn-adotropin. Monitoring: hormone blood levels (estradiol and progesterone) and ultrasound.

ANT: no OCP. 0.25 mg starting after 5 stimulation days vs. 14 mm follicle. 10000 IU HCG trigger is given when 3 follicles measures 16–17 mm.

Oocytes evaluation after 4 hours of retrieval, swim up for sperms, ICSI for all, 18 hours evaluation, cleavage top embryos%. Transfer of day 3/5 depends on number of cleaved embryos, quality and previous IVF cycles.

Results: 602 women: 357 AGO, 45 ANT. Age and BMI had (30.4 ± 5.1 vs. 31.5 ± 4.9 vs. 25, p=0.26).

Results (AGO vs. ANT): Oocytes (11 4 vs. 94.6, p=), fertilization & cleavage: (745.4 vs. 79.5, p=0.024 vs.65.9 vs. 71.5, p=0.002), chemical & clinical pregnancy (64.6% vs. 58%, p=0.25, 57% vs. 48%, p=0.17 respectively), Implantation rate 33% vs. 39%, p=0.04, OR 1.24. Mean ET (2.6±0.6 vs. 2.67±0.5), severe OHSS (0.04% vs. 0%).

Conclusions: There was insignificant difference in both groups regarding chemical and clinical pregnancy. ANT protocol yields higher implantation rate and might be more convenient to our patients since it requires shorter treatment time, less down time off work, which make it financially more affordable since ART centers are not available in all cities. This study represents an invitation to start establishing local guidelines for various aspects of ART in Middle East including agreement for the maximum number allowed for embryo transfer that balances both patients preference of having twins and the concern for its complication for mother and babies.

P0209
THE EFFECTS OF SPERM DNA FRAGMENTATION ON THE INTERACTION OF SPERMATOZOA WITH THE ZONA PELLUCIDA OF HUMAN OOCYTES
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Objectives: The objective of this work was to study the effect of sperm DNA fragmentation on the interaction of sperm with the zona pellucida (ZP) of human oocytes.

Method: Our work focuses on 119 infertile patients. The oocytes were collected 48 hours after insemination in patient’s assigns failed at IVF or ICSI. The denuded oocytes were stored in saline until their use for binding to the ZP assay. The sperm of infertile patients was treated by centrifugation on density gradient prior to being inseminated. The sperm DNA fragmentation was performed by the TUNEL technique. Patients were divided into three groups according to the DNA fragmentation index (DFI): Group I (79 patients, DFI <15%), Group II (28 patients, 15% < DFI < 30%), Group III (12 patients, DFI > 30%).

Results: The number of sperm attached to the ZP was positively correlated with the sperm count (r=0.018, p=0.06), sperm motility (r=0.49, p=0.07) and sperm morphology (r=0.12, p=0.05). The IFA was positively correlated with the % of sperm abnormal forms (r=0.247, p=0.007), the % of sperm dead (r=0.484, p=0.012), the % of sperm acrosome abnormalities (r=0.389, p=0.001) but negatively correlated with sperm motility (r=-0.29, p=0.033) and fixation test of spermatozoa to the ZP (r=-0.217, p=0.018).

Conclusions: The spermatic DFI was correlated with several sperm parameters: The % of sperm abnormal forms particularly with acrosome abnormalities, the % of sperm dead and the DFI elevation was originally the inhibition of sperm binding to the zona pellucida which became zero from a 30% of DFI.

P0210
ANTICOAGULANT PROPHYLAXIS OF THE REPEATED PREGNANCY COMPLICATIONS IN WOMEN WITH THROMBOPHILIA AND MULTIPLE PREGNANCY AFTER IVF
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Objectives: To evaluate the efficiency of anticoagulant, antioxidants and vitamins (folic acid, group B) in the course of preparation for IVF, in the IVF protocols, during multiple pregnancy and in the postnatal period.

Method: 125 women with the physiological course of multiple pregnancy (group I) and 100 women with pathological course of pregnancy after IVF and history of obstetric complications (group II) were examined for genetic thrombophilia and APA circulation.

Results: In group I thrombophilia was in 19 (15.2%): in the group II in 120 (96%): factor V Leiden mutation – in 38 (24.5%), prothrombin gene G20210A – 15 (12%), hyperhomocysteinemia in 43 (34.4%), LA circulation – 30 (19.35%), APS 31 (24.8%). The combined forms of thrombophilia in 22 (17.6%). Moderate preeclampsia developed in 23 (18.4%), placental abruption with antenatal death of both fetuses – in 5 women. Premature birth at term 29–32 weeks took place in 15 women. Thromboses (ileofemoral, jugular veins) – in 2 women at the I trimester of pregnancy and in 2 women postnatally.

Conclusions: The conducted research allows to assume the necessity of application of anticoagulant, antioxidant therapy and vitamins from the fertile cycle and during all pregnancy.

P0211
ADDITION OF LONG-ACTING GROWTH HORMONE, EUTROPIN PLUS® SINGLE INJECTION DURING CONTROLLED OVARIAN STIMULATION IMPROVES EMBRYO QUALITY AND EMBRYO IMPLANTATION RATE IN POOR RESPONDERS UNDERGOING IVF
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Objectives: This study was performed to investigate whether the addition of long-acting growth hormone (GH), Eutropin plus® 24mg...
single injection could improve on controlled ovarian stimulation (COS) results and IVF outcome in poor responders undergoing IVF.

Method: This retrospective cohort study included 111 consecutive IVF/ICSI cycles in 111 poor responders who underwent COS using the GnRH antagonist multiple-dose protocol (MDP) in which long-acting GH, Eutropin plus® 24mg single injection is added (LAGH group, n=61) or the conventional GnRH antagonist MDP (control group, n=50) between March 2014 and November 2014. The diagnosis of poor responder was based on the Bologna criteria of the 2011 ESHRE consensus. COS and IVF results were compared between the two groups. Student’s t-test was used to compare mean values. Chi-square test and Fisher’s exact test were used to compare fraction.

Results: Total dose and days of gonadotropins used for COS were similar between the two groups. The number of oocytes retrieved was also comparable. However, the numbers of mature oocytes, fertilized oocytes and grade I or II embryos were significantly higher in the LAGH group (p < 0.001, p = 0.001, p < 0.001, respectively). Embryo implantation rate was significantly higher in the LAGH group of 23.3% compared with 12.1% in the control group (p = 0.013). No patients reported any systemic or local adverse effects attributed to the use of long-acting GH, Eutropin plus® 24mg single injection.

Conclusions: GH co-treatment using long-acting GH, Eutropin plus® 24mg single injection is a feasible and patient-friendly alternative to improve the oocyte and embryo quality and increase the embryo implantation rate in poor responders undergoing IVF.

P0212
INTRAMUSCULAR PROGESTERONE (GESTONE) VS VAGINAL SUPPOSITORY (CYCLOGEST) FOR LUTEAL PHASE SUPPORT IN CYCLES OF IN VITRO FERTILIZATION (IVF): PATIENT PREFERENCE AND DRUG EFFICACY

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Objectives: Following IVF treatment, patients are routinely given progesterone suppletions for luteal phase support. In our program it is given for an average of 8 weeks in form of either Intramuscular progesterone 50mg daily injections, or Vaginal cyclogest suppositories 400mg BiD based on patient’s preference. We observed patients demand on more IM preparations, while there is a world wide shortage in supply of the IM progesterone. The objective of our study is to assess the patient’s preference regarding the routes of progesterone supplementation and their satisfaction with the selected choice, and Compare the efficacy of the different routes.

Method: Prospective cohort study, patients <40 years old undergoing IVF treatment at our clinic were offered to participate. Patients were allocated by their choice to either group A (IM progesterone), or group B (the vaginal progesterone). Both groups were treated similarly apart from the progesterone intervention. A satisfaction score from 1–5 was used to assess patients satisfaction in regard to the treatment method, they were interviewed for recording of their satisfaction and the side effects. Sample size was calculated for a total of 400 patients. This is an Interim analysis at middle of the study.

Results: 105 patients (52%) were in (group A) and 94 patients were in (group B). Average age and BMI was similar in both groups. 56% of the patients in group A and 59% of the patients in group B had reported at least one side effect, P=0.9, the most common side effect for group A was discomfort after administration40%, the most common side effect in group b was vaginal leak 16%. The median satisfaction score for group A was 5 and for group B was 4, P=0.13. The pregnancy rate for both groups was similar at 32%.

Conclusions: This initial data showed that more than half of the patient undergoing IVF treatment have selected IM progesterone for luteal phase support, there was no significant difference in the patient’s satisfaction, side effects and pregnancy rate in both groups.
a physician, as a result they might have inappropriate and insufficient information about their menstrual problems. Hence, a comprehensive school health/education program on menarche, menstrual problems and gynecological health given by teachers and medical staff is needed.

**P0215**

**EFFECT OF VITAMIN B1 ON CYCLIC MASTALGIA (BREAST PAIN) IN WOMEN**

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**Objectives:** The most common cause of anxiety among women in health care centers, due to the nature of cyclic mastalgia that proper treatment is important. Mastalgia breast pain is a complaint that many pharmacological agents used to treat it. The drug is used to treat mastalgia vitamin. Due to the absence of a fully effective medication and side effects, this study was conducted to determine the effect of vitamin B1 on the treatment of cyclic mastalgia.

**Materials and methods:** In a Randomized Clinical Trial (RCT) two blind, 80 female students that resident in the dormitories of Jahrom University with mastalgia in the age group 30–18 years with mastalgia were divided randomly into two groups. In a group of 40 students gives 100 mg vitamin B1 Tablet daily for three months, and a second group of 40 students for 3 month, placebo (placebo) was administered. Breast pain severity and duration of the pain and breast pain chart was assessed daily. T tests, Wilcoxon and Mann-Whitney tests were analyzed.

**Results:** At the end of the quarter, 76% of the vitamin B1, 14% responded to placebo (P<0.0001). Vitamin B1 was well tolerated and caused no side effects.

**Conclusions:** Vitamin B1 is safe and effective drug therapies to treat mastalgia and it is known that most of the upper side is better tolerated. This study is result of an original article that recognized the effect of vitamin B1 on the treatment of cyclic mastalgia in women.

**P0216**

**OFFICE TRANSCERVICAL MICROWAVE MYOLYSIS ASSISTED BY TRANSABDOMINAL ULTRASONIC GUIDANCE FOR MENORRHAGIA CAUSED BY SUBMUCOSAL MYOMAS**

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**Objectives:** To evaluate the effectiveness of microwave endometrial ablation (MEA) with transcervical microwave myolysis for patients with menorrhagia caused by submucosal myomas in office-setting day surgery.

**Method:** Thirty-five outpatients (average age; 44.8±5.2 years [mean ± SD], range; 34–58) with a single submucosal myoma that was 4–7 (5.5±2.1) cm in size underwent MEA with transcervical microwave myolysis using a specifically developed transabdominal ultrasound probe attachment for transcervical puncture. Primary outcomes were the changes in the blood hemoglobin level and the volume of myoma before and after the treatment. Secondary outcomes were the improvement in menorrhagia and satisfaction after the operation, assessed by visual analogue scale (VAS).

**Results:** The mean operation time was 27.9±13.6 min. The myomas had shrunken by 56.2% at 3 months and 72.5% at >6 months after the operation. Blood hemoglobin levels had increased significantly at 3 months (10.2±2.0 versus 12.7±1.2; p<0.001). The average VAS assessment of menstrual bleeding had decreased to 1.7±1.7 at 3 months after the operation (preoperative VAS=10). The average VAS score for feelings of satisfaction 3 months after the operation was 9.8±0.5 (full score =10).

**Conclusions:** MEA with transcervical microwave myolysis, in office-setting day surgery, is a feasible and effective procedure for menorrhagia caused by submucosal myomas. The procedure may be an alternative to hysterectomy for menorrhagia caused by submucosal myomas in women during the perimenopausal period.

**P0217**

**TRANSCERVICAL INTERSTITIAL MICROWAVEABLATION THERAPY – ADENOMYOLYSIS – FOR THE TREATMENT OF ADENOMYOSIS: A NOVEL ALTERNATIVE TO HYSTERECTOMY**

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**Objectives:** Adenomyosis is a tumor-like condition common in women aged 30–50 years. Hysterectomy is presently considered as the standard surgical treatment for adenomyosis. Standard microwave endometrial ablation (MEA) at a frequency of 2.45 GHz is not effective for the treatment of adenomyosis lesions deeper than 6 mm from the endometrium. However, transcervical microwave adenomyolysis (TCMAM) in combination with MEA could replace hysterectomy for the treatment of adenomyosis. In this prospective study, we evaluated the treatment of adenomyosis by using simultaneous TCMAM and MEA.

**Method:** We enrolled 51 adenomyosis patients with menorrhagia and dysmenorrhea who selected MEA as an alternative to hysterectomy. Complete informed consent was obtained from all patients. After MEA was performed, a 4-mm microwave applicator was transcervically introduced, under transabdominal ultrasound guidance, into the uterine cavity and was inserted into the adenomyosis using a specifically developed transabdominal ultrasound probe attachment for transcervical puncture. The adenomyosis was continuously irradiated with microwaves with a frequency of 2.45 GHz at 40 W for 100–780 s based on its size.

**Results:** Four weeks after the procedure, contrast-enhanced magnetic resonance imaging showed de novo avascular areas of 18–50 mm in thickness where the adenomyosis was previously located. The average hemoglobin level increased significantly (P<0.0001: paired t-test) by 4.4 g/dl at 3 months. The mean uterine body volume significantly (P<0.0001: paired t-test) decreased to 61% and 58.9% of the volume before treatment at 3 months and 12 months postoperatively, respectively. Visual analogue scale scores showed subjective improvements in menorrhagia and dysmenorrhea. There were no remarkable complications except for watery discharge, which was encountered after the operations.

**Conclusions:** The use of TCMAM with MEA as a possible alternative to hysterectomy for adenomyosis can help to relieve menorrhagia and dysmenorrhea and also to shrink the uterine body.

**P0218**

**NEW MECHANISM OF ANTIPROLIFERATIVE MIFEPRISTONE EFFECTS IN UTERINE MYOMA PATIENTS**

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**Objectives:** The use of selective progesterone receptor modulators (SPRM) in patients with uterine myoma is a common organ-preserving tactic. Resorptive effect of mifepristone influence on many body systems. Immune system plays leading role in sanogenesis. Immune cell express all sex steroid receptors. To study mifepristone effects on estradiol receptor (mER), progesterone (PR-A), glucocorticoids and androgens genes expression in blood mononuclear cells (BMNC) of patients with uterine myoma that are depended on the effectiveness of therapy.

**Method:** There were50 patients from 18 to 45 years with uterine myoma (interstitial and interstitial-localization subserous fibroids, from 6-week and 12-week pregnancy). Mifepristone (Gynestril, “Stada”) 50 mg were given orally daily for 3 months. Levels of mER, PR-A, GA, AR gene expression in BMNC were determined with RT-PCR. Comparing gene was GAPDH. Quantitative assay of receptor gene expression was studied using the formula 2–ΔΔCt [Schmittgen TD 2008].
Conclusions: After surgery: After the cystectomy, she was improved pelvic pain lined with cuboidal epithelium suggestive of nabothian cyst. Pathologic finding: Histopathology examination showed cyst wall A large cyst filled with mucinous fluid was removed from the cervix.

L. Abdullayeva
P0220
A LARGE NABOTHIAN CYST WITH CHRONIC PELVIC PAIN
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Objectives: Nabothian cysts are common gyneco-pathological conditions of women in reproductive age. They are most often caused when squamous epithelium blocks the opening of nabothian glands trapping mucosal secretion in small (2–10 mm diameter) subdermal pockets. Nabothian cysts are usually associated with chronic cervicitis, an inflammatory condition of cervix, and are harmless and usually disappear on their own. Nabothian cysts are not problematic unless they are sizeable and present secondary symptoms like in this case. We report a case of a large nabothian cyst with chronic pelvic pain.

Method: She suffered from chronic pelvic pain and vaginal discharge 3 months before going to the hospital. That complaints was aggrated during ambulation. She was checked by orthopedic examination and there was no specific finding. The patient was in good physical health, with a blood pressure of 110/70, pulse of 84-times, and body temperature of 36.6°C. Vaginal examination revealed enlarged cervix due to large cystic mass. Values from blood testing and other tests were normal. Both chest X-ray and EKG showed normal values. Ultrasound showed a normal-sized uterus with a two-chamber 6.5x5.0 cm anechoic cyst in cervical region.

Results: Operation: We performed cystectomy via vaginal approach. A large cyst filled with mucinous fluid was removed from the cervix. Pathologic finding: Histopathology examination showed cyst wall lined with cuboidal epithelium suggestive of nabothian cyst. After surgery: After the cystectomy, she was improved pelvic pain.

Conclusions: Nabothian cysts are common lesions of uterine cervix and usually of no clinical significance. They are only a few millimeters in diameter and although they may cause enlargement of cervix, the vast majority are asymptomatic. The classical cases of nabothian cysts do not require any treatment. However, symptomatic nabothian cyst should be consider the surgical approach.

P0221
A LARGE NABOTHIAN CYST WITH CHRONIC PELVIC PAIN
J. Namkung, J.H. Kim. The Catholic university of Korea, Seoul, Republic of Korea

Objectives: Nabothian cysts are common gyneco-pathological conditions of women in reproductive age. They are most often caused when squamous epithelium blocks the opening of nabothian glands trapping mucosal secretion in small (2–10 mm diameter) subdermal pockets. Nabothian cysts are usually associated with chronic cervicitis, an inflammatory condition of cervix, and are harmless and usually disappear on their own. Nabothian cysts are not problematic unless they are sizeable and present secondary symptoms like in this case. We report a case of a large nabothian cyst with chronic pelvic pain.

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Conclusions: Nabothian cysts are common lesions of uterine cervix and usually of no clinical significance. They are only a few millimeters in diameter and although they may cause enlargement of cervix, the vast majority are asymptomatic. The classical cases of nabothian cysts do not require any treatment. However, symptomatic nabothian cyst should be considered the surgical approach.

P0222
CLINICAL EFFECTS OF LEVONORGESTREL-RELEASING INTRAUTERINE DEVICE IN PATIENTS WITH ENDOMETRIOMA AFTER SURGERY AND 6 CYCLES OF GONADOTROPIN RELEASING HORMONE AGONIST
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Objectives: Although the usage of each levonorgestrel-releasing intrauterine system (LNG-IUS) and gonadotropin releasing hormone agonist (GnRHa) are widely used and known to be effective in managing women with endometriosis, efficacy of combination of these two methods is questionable. Therefore we inspected the efficacy of postoperative use of LNG-IUS with GnRHa for managing endometriosis.

Method: This is a prospective study including patients who underwent operation for endometrioma detected in radiologic examinations from March, 2010 to July, 2014. All women had undergone laparoscopic or laparotomy surgery for endometrioma followed by three to six cycles of GnRHa. Women were categorized into two groups: a group who had postoperative GnRHa with LNG-IUS (n=18) and a group who had postoperative GnRHa with oral contraceptive pills (OC) (n=73). Menstrual characteristics, complications, recurrences were analyzed according to postoperative treatment modalities.

Results: During the follow-up period, the vaginal spotting and bleeding were found in twelve women (13.2%); 5.6% in patients with LNG-IUS (11/18) and 15.1% in patients with OC (15/73). Improvement in dysmenorrhea was found in 88.9% of patients with LNG-IUS (16/18) whereas 82.2% of patients with OC (60/73), and amenorrhea was detected in 22.2% in the LNG-IUS group (4/18), and in 4.1% in the OC group (3/73). The recurrent endometriomas were detected in total three women (3.3%); 5.6% in patients with LNG-IUS (1/18), 2.7% in patients with OC (2/73), and no patients in LNG-IUS group experienced expulsion.

Conclusions: Postoperative usage of GnRHa with LNG-IUS seemed to be comparable to the use of GnRHa with OC or any other postoperative single treatment in relieving symptoms and improving quality of life in endometriotic patients.

P0223
CLINICAL OUTCOMES OF ADENOMYOMECTOMY USING DOUBLE FLAP METHOD IN PATIENTS COMPLAINED OF SEVERE DYSMENORRHEA
J.C. Park, S.M. Kim, S.H. Kwon, C.H. Cho, J.H. Rhee, J.I. Kim. Department of Obstetrics and Gynecology, School of Medicine, Keimyung University, Daegu, Republic of Korea

Objectives: Hysterectomy is the only definitive treatment for debilitating adenomyosis. In case of infertility or strong wish to preserve the uterus, conservative surgery could be considered. The aim of this study was to evaluate the clinical outcomes after adenomyomectomy using the double flap method, which includes double suturing.
the uterus using a serosal-side flap after resecting adenomyotic tissues.

**Method:** Forty-two women complaining of severe dysmenorrhea underwent adenomyomectomy by double flap method during the last three years. After incision until endometrial cavity was opened, adenomyotic tissue on uterine wall was completely removed. Endometrial cavity was repaired, one side of uterine wall after removing the serosa was sutured over endometrial side of uterus, and the other side of uterine wall was sutured over the first flap. 15 cases by laparoscopic operation, 16 cases by robotic laparoscopic operation, and 11 cases by laparotomy were performed.

**Results:** Mean age of enrolled women was 38.76±4.83, and parity was 0.62±0.79. Mean excised tissue was 115.8±79.7g (34–457g), mean operational time was 142.6±55.9 minutes (35–250 minutes). Compared by operational methods, operational time was significantly longer in laparotomy, however, age, parity, CA125 levels, preoperative uterine size, excised tissue weight, postoperative symptoms relief were not different. All patients’ dysmenorrhea and hypermenorrhea were reduced after operation. With mean follow-up of 12 months, six women (14.2%) took NASID for less severe pain before. No one underwent hysterectomy. Among ten women wanted to bear children, only one woman conceived spontaneously and was delivered of a healthy baby by Cesarean section.

**Conclusions:** Conservative operation for adenomyosis by minimal invasive methods appear to be safe and effective to control the dysmenorrhea. Pregnancy rate was somewhat disappointed. Well designed, large scale study are needed.

**P0225**

**ASSOCIATION BETWEEN MCP-1, L-SELECTIN AND MACROPHAGE PROFILE EXPRESSIONS IN ENDOMETRIOSIS**

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**Objectives:** Endometriosis is defined as altered inflammatory functions, characterized by alternatively activated macrophages (M2) that function more dominantly than scavenger macrophages (M1) in the proinflammatory process. Macrophage activation is affected by leukocytes recruited into the inflammatory site. This is affected by adhesion molecules (L-selectin) that trigger the initial step in recruiting leukocytes resulting in high production of MCP-1 of the endometrial stroma. This study was conducted to determine an association between MCP-1, tissue L-selectin and macrophage profiles in endometriosis.

**Method:** This cross sectional analytical study assessed MCP-1, L-selectin, and M1 and M2 macrophage expressions. M1 and M2 macrophage immunoprecipitated areas (using monoclonal anti-human-CD68 (Clone PG-M1) mouse ant and anti-CD163 human markers) present at endometrial tissue slices were calculated as antigen percentage. L-selectin (CD62L) was immunohistochemically examined using anti human L-selectin monoclonal antibody (MECA-79; BD Pharmigen), and MCP-1 using monoclonal mouse anti-MCP-1.

**Results:** Twenty one endometriosis and 21 control cases were obtained through consecutive sampling based on inclusion and exclusion criteria. The endometriosis group was dominated by 66.7% of subjects that expressed M1 macrophages, whereas only 9.5% of non endometriosis subjects expressed M1 macrophages. All endometriosis subjects expressed M2 macrophages whereas only 4.8% of non endometriosis subjects expressed M2 macrophages. Although expressed in all endometriosis subjects, MCP-1 and L-selectin was not expressed in non-endometriosis tissues. MCP-1 and L-selectin was significantly associated with macrophage expressions in cases of endometriosis (p<0.0001).

**Conclusions:** MCP-1 and L-selectin expressions were associated with macrophage expressions in endometriosis, with higher expressions of M2 than M1 macrophage.

**P0226**

**ESTROGENIC NICHE IN EUTOPIC AND ECTOPIC ENDOMETRIUM SHOWS SIGNIFICANT PHENOTYPICAL DEPENDENCE ON THE FERTILITY STATUS OF THE PATIENTS HAVING OVARIAN ENDOMETRIOSIS**

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**Objectives:** Generally, endometriosis is considered as an estrogen mediated disorder. There are however conflicting reports regarding the expression of proteins involved in estrogen synthesis, catabolism and action in endometrium of patients with endometriosis. We have recently reported that the endometrial phenotypes are different between fertile and subfertile patients with ovarian endometriosis. In the present study, we have examined the immunohistochemical levels of steroidogenic proteins in eutopic endometrium during proliferative and secretory phases of fertile and subfertile patients of ovarian endometriosis.

**Method:** Eutopic and ectopic endometrial tissues were collected during proliferative (n=25) and secretory (n=12) phases of menstrual cycles from fertile (n=18) and subfertile (n=19) groups of women affected with ovarian endometriosis. Control (n=22) endometrial tissues were collected from unaffected women during proliferative and secretory phases of menstrual cycles. Steroidogenic proteins (SF-1, StAR, aromatase, 17βHSD1, 17βHSD2, ER-α, ER-β and PGR) were immunochemically quantified and localized using Western im-
**Conclusions:** It appears from the present study that phenotypically the estrogenic dynamics of endometrium in patients having ovarian endometriosis shows significant dependence on the fertility history besides the phases of the menstrual cycle. Thus, a generalized anti-estrogenic therapeutic approach to treat ovarian endometriosis may not be a clinically robust approach.

**P0227**

**MOLECULAR PHENOTYPING OF ENDOMETRIUM BASED ON WHOLE HUMAN GENOME TRANSCRIPTOME ANALYSIS REVEALS OVERT DIFFERENCES BETWEEN FERTILE AND SUB-FERTILE PATIENTS OF OVARIAN ENDOMETRIOSIS**

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**Objectives:** Large scale array based transcriptome analysis of autologous eutopic and ectopic endometrial tissues obtained from patients with ovarian endometriosis previously indicated possible differential expression of steady state transcripts between fertile and sub-fertile groups. In the present study, we have examined this notion using whole human genome transcriptome analysis of eutopic endometrium from fertile and sub-fertile patients having rASRM stage 4 ovarian endometriosis during proliferative and secretory phases of menstrual cycles. It was anticipated that this may yield an input list of molecules having high order of pathophysiological and clinical significance.

**Method:** Endometrial eutopic samples were collected from fertile and sub-fertile (n=16/each) patients with stage 4 ovarian endometriosis. Total RNA was extracted and based on the quality and integrity (RIN > 8.0) of extracted RNA, 24 samples were subjected to whole genome expression microarray. The selected images which passed the default quality control (n=23) were further subjected to exploratory analyses followed by differential display among groups using ANOVA with unequal variance and multiple comparison test with Benjamin-Hochberg correction using GeneSpring v13.0 software. The data was further subjected to enrichment analysis using GENEGO MetaCore Web portal.

**Results:** Exploratory analyses identified expression segregation between fertile and sub-fertile groups. The differential expression between fertile and sub-fertile groups identified 88 genes in the proliferative phase and 21 genes in the secretory phase. Functional genomics analysis revealed that the differentially expressed genes in fertile and sub-fertile patients with stage 4 ovarian endometriosis are associated with transcription regulation in terms of RNA editing, various other protease dependent G protein signaling cascades and receptor tyrosine kinase mediated signaling. Contrary to the fertile groups, the sub-fertile group with ovarian endometriosis appeared to display inadequacy in recycling of cellular materials in endometrial cells.

**Conclusions:** Further molecular phenotyping of endometrium may identify differences between fertile and sub-fertile patients having ovarian endometriosis, which will reflect high order of pathophysiological and clinical leads towards better understanding and management of this complex gynecological disorder.

**P0228**

**EFFECTS OF MÜLLERIAN INHIBITING SUBSTANCE ON MYOMA**

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**Objectives:** Müllerian inhibiting Substance (MIS), also known as anti-Müllerian hormone (AMH), is known to not only act as a regulator of female reproductive function but also inhibits the growth of Müllerian duct-derived tumors in vivo and in vitro. But the role of MIS in myometrium and myoma is unclear. Therefore, this study is aimed to confirm the expression of MISRII and effects of MIS on myometrium and myoma.

**Method:** We gathered the tissues from the 26 patients who had hysterectomy formyoma (24 myometrial tissues and 26myoma tissues). We performed immunohistochemistry with rabbit polyclonal anti-human MIS II antibody. The cultured cells were exposed to MIS and MTT assay. Induction of cell cycle and apoptosis was also observed in the cells treated with MIS as measured by using DNA PI staining and annexin V binding. The cells were analyzed on a flowcytometer. We evaluated the expression of proteins which is related apoptosis and cell cycle arrest in myometrium and myoma.

**Results:** MISRII was strongly stained in myoma tissues, whereas myometrial tissues showed weakly stained. The cultured myoma cells treated with MIS significantly exhibited 26.4% growth inhibition in myoma but 7.7% in myometrium (P<0.05). Changes in cell cycle distribution after exposure to MIS demonstrated that S and G2M phases were decreased, G0G1 and subG0G1 phases were increased 8.9% and 24.3% in myoma and 3.2% and 8.3% in myometrum respectively. In the cultured myometrium and myoma cells treated with MIS increased 5.2% and 20.2% binding annexin V. Treatment with MIS down-regulated p107 and p130, the cell cycle related protein and up-regulated caspase-3, the apoptosis related protein cleaved.

**Conclusions:** We found that the expression of MISRIIs difference between myometrial tissue and myoma. MIS induces G0G1 cell cycle arrest and apoptosis of myoma. These finding suggest that MIS has a greater role on myoma than myometrium in cell cycle inhibition and apoptosis. Therefore, MIS could be used as a biological modifier or therapeutic agent for the treatment of myoma.
**Results:** Baseline hematological parameters were comparable in both groups. The mean iron requirement in Group I & Group II was 1524.2±261.2 mg & 1462.8±195.8 mg respectively (p=0.3), but the number of doses to build up deficit were significantly less in Group I. After 12 weeks, 75.9% (22/30) of patients in Group I and 65.5% (19/30) in Group II achieved target Hb of ≥ 12 g/dL. FCM showed significantly higher mean rise in Hb (4.95 g/dL vs 4.31 g/dL) & serum ferritin (112.2 μg/L vs 61.39 μg/L) than ISC. Both drugs caused significant improvement in fatigue levels without any serious adverse effects.

**Conclusions:** In patients with anemia due to Abnormal uterine bleeding, FCM causes rapid rise in hemoglobin, causes better buildup of iron stores and is well tolerated with minimal side-effects. The main advantages are less number of doses required to build up the deficit, fewer needle pricks, fewer hospital visits and less overall cost of treatment as compared to ISC.

**P0230**

**TWIN PREGNANCY CONSISTING OF A COMPLETE HYDATIDIFORM MOLE AND COEXISTING FOETUS (CHMCF): A CASE REPORT**

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**Objectives:** To compare immediate termination vs. conservative approach for twin pregnancy consisting of a complete hydatidiform mole and coexisting foetus according to contemporary guidelines from the literature and to sort out the complications.

**Method:** Data obtained from indoor admission files and data obtained from periodic follow up were gathered together.

**Results:** The clinical circumstances were discussed in brief with the patient and after taking informed consent in written form a decision for termination was made. Following delivery by hysterotomy the patient was scheduled for routine follow up with serum β-hCG level that returned to baseline within 09 weeks following termination of the pregnancy. Her β-hCG level at admission was 2,250,000 miU/mL and the level fell to 1,86,096 miU/mL 48 hours after termination of pregnancy.

**Conclusions:** Twin pregnancy with complete hydatidiform mole represents a major controversy. We suggest that conservation should always be considered whenever tertiary care services and strict observation are available.

**P0231**

**THE PREVALENCE OF BLEEDING DISORDERS IN WITH WOMEN WITH PROVEN ENDOMETRIOSIS AND IN WOMEN WITH HEAVY MENSES**

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**Objectives:** To determine the different types of treatments and improved rates of symptoms and endometriotic lesions, emphasizing the hormone therapy with the use of dienogest (2 mg) compared to other drugs, thus enabling a better analysis for decision making about the best method to be used in medical clinic.

**Method:** Surveys were conducted using the MedLine/PubMed database to obtain clinical studies which included drugs for the treatment of endometriosis. The inclusion criteria were randomized placebo-controlled studies, where the endometriosis was treated with Diengast (continuous use) or other drugs; and the exclusion criteria, articles which were reported surgical treatment of endometriosis, or those which could not specify the occurrence of adverse events associated with the groups. The descriptor term “dienogest ” was used, followed by key words such as: “gonadotropin-releasing hormone agonist“, “danazol”, “gestrinone”, “Levonorgestrel-releasing intrauterine device”, “Nonsteroidal Anti-inflammatory Drug”.

**Results:** A total of 39 articles were analysed, of which only 14 were considered consistent with the established inclusion and exclusion criteria and eligible for composition of the table. All studied drugs were shown effective in reducing pelvic pain and the Dienogast appeared as a drug that causes little or any adverse effects, as well as being associated with decreased injury in some cases. This drug was associated eventually to an irregularity in genital bleeding. The other drugs studied showed adverse effects already known in literature as reduction of bone density by the GnRH analogues.

**Conclusions:** Dienogest is shown effective when compared to other treatments in reducing pelvic pain. It also produced significantly greater tolerability and safety than the other drugs, showing an interesting option for the clinical treatment of endometriosis, besides the videolaparoscopy. However, more studies should be performed about this drug, but certainly its likely relationship with the reduction of injuries is promising.
**P0234**
LIGHTENING STRIKES TWICE: RECURRENT ECTOPIC PREGNANCY IN TUBAL REMNANT AFTER SALPINGECTOMY FOR ECTOPIC PREGNANCY
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Objectives: Advancements in ultrasound have vastly improved detection and diagnosis of ectopic pregnancy. The incidence of EP is 14% and the mortality rate remains 0.4 per 1000 ectopic pregnancies.

Method: A 28 year-old woman (gravida 3 para 0020) underwent laparoscopic right salpingectomy for an ectopic pregnancy. She presented one year later with a recurrent ectopic pregnancy in the tubal remnant requiring another laparoscopy and excision of right ectopic pregnancy and tubal remnant.

Results: The patient has subsequently conceived spontaneously. She went on to have an uncomplicated pregnancy and delivery.

Conclusions: Despite advances in diagnostic studies, atypical presentations of ectopic pregnancy may evade diagnosis resulting in maternal morbidity and mortality.

**P0235**
CASES AND RECIDIVES OF ABDOMINAL WALL ENDOMETRIOSIS – EVALUATION IN THE LAST TEN YEARS (2004–2014) AT THE STATE UNIVERSITY OF CAMPINAS
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Objectives: To determine abdominal wall endometriosis’ clinical and epidemiological characteristics, as well as its rate and the factors of recurrence of the disease.

Method: It was a retrospective descriptive study evaluating 52 women with abdominal wall endometriosis referred to Prof. Dr. Jose Aristodemo Pinotti Hospital at State University of Campinas (Unicamp) from 2004 to 2014. 231 surgeries were performed to diagnose endometriosis, from which was found endometriosis evidence in 93 women from which 52 had abdominal wall endometriosis (AWE).

Frequencies, mean and standard deviation of the clinical characteristics of these women and the rate of recurrence of endometriosis wall were calculated. To determine the recurrence risk factors Fisher’s exact test was used.

Results: The average age of the women was 31 years, and body mass index was 26 kg/m². The main clinical manifestations were pain (98%) and palpable nodule (36%). Only one patient had evidence of injury without pain. The average of symptoms duration was 40 months. It’s also found 94% of the patients had at least one cesarean and 73% of them used medication for endometriosis control postoperatively. The most frequent location of lesion was the cesarean scar (65%) and the average size of the lesion 2.5 cm (ultrasound) and 4 cm (intraoperative). The recurrence rate was 27%. There’s no correlation with previous cesarean (p=0.18), laparotomy (p=0.11), laparoscopy (p=0.12) or previous surgery complications (p=0.16) as a factor of recurrence of AWE. Women taking medication postoperatively showed no recurrence of lesions (p=0.06).

Conclusions: In a nutshell, women with previous cesarean section with local pain or lump should be investigated for abdominal wall endometriosis. Although we found no correlation of cesarean as a risk factor, the vast majority of women had at least one cesarean section. In addition, we can infer that the use of hormonal medication for treatment after removal of the abdominal wall endometrioma could be a protective factor for recurrence.

**P0237**
AUDIT ON INFORMED CONSENT FOR INTRAUTERINE CONTRACEPTION
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Objectives: Looking at whether patients are adequately informed about insertion of intrauterine contraception at Walkden Medical Centre. Particularly focussing on ensuring that the clinicians tell specific information to the patients set out in the Faculty of Sexual and Reproductive Healthcare’s Guidelines and NICE Long-acting reversible contraception guidelines. After all this information, the patients have sufficient information to give informed consent for the procedure.

Method: An EMIS search was completed for all patients who had any intrauterine device (IUD) in the past year. Their consultation notes were examined to find information that had been recorded by the clinician as proof they have adequately informed the patient about the IUD. The information included in the notes was then cross-checked against the information that NICE recommends should be conveyed and recorded in a table.

Results: 51 patients were identified in total. 100% of patients had a “chaperone offered”, “gynaecological exam” and given a “follow-up appointment” (65% attendance rate). 98% of patients had been told to “check threads”. 93% of patients had “fertility advice” and 91% had “procedural information”. 56% had an STI check and 47% had been told about the “failure rate”, “risks and side effects”. Only 19% had been told about when to seek medical attention and 2% patients had been told the duration time of the IUD. 0% of patients were told about the method of action and no contra indications were checked.

Conclusions: The results were mixed with some categories being recorded more than other. It may be the case that the patient was informed about the procedure verbally but not recorded in the consultation notes, which could explain some of the poor results.

Recommendations: Present findings to practice to raise awareness of the findings. Implement a consent form that can be printed off,
completed by the patient, which contains all the relevant information and the scanned back into the EMIS database.

**P0238**
**STRUCTURAL EQUATION MODEL OF SOCIAL SUPPORT WITH WOMEN'S EMPOWERMENT IN REPRODUCTIVE DECISION-MAKING**

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**Objectives:** Women’s empowerment is the third component of the Millennium Development Goals (MDGs) and plays an important role in achieving the other goals. In many parts of the world, women have not the power to make decisions about reproductive issues and the decisions that affect the family and community support. Social norms have a major impact on reproductive how decisions. Given the importance of this relationship model that has not been investigated so far.

Therefore, this study was designed to figure out the Structural equation model of Social Support with women’s empowerment in reproductive decision-making.

**Method:** This was a descriptive-correlation study on 400 women who attended health centers affiliated to Shahid Beheshti University of Medical Sciences Tehran-Iran. Data collection instruments included: 1) socio-demographic characteristics 2) women’s empowerment in reproductive decision-making, 3) perceived social support. Data were analyzed by SPSS-17 and EQS 6.1 for structural equations model.

**Results:** Information on Women’s empowerment in reproductive decision making implied that the mean score of women’s empowerment reproductive was 82.54±14.00 of the total score of 152 score. Social Support is correlated with women’s empowerment in reproductive decision making (r=0.33, P<.001). Results showed that the final model had favorable fit (RMSEA=0.07, CFI=0.92) and the direct effect of Social Support (β=0.54) and the indirect effect of socioeconomic status (β=0.23) was on women’s empowerment in reproductive decision-making (P<0.001).

**Conclusions:** Social support a significant contribution in the field of women’s empowerment in reproductive decision-making. Socioeconomic status on the women’s empowerment in reproductive decision-making indirect effect.

**P0239**
**THEORY-BASED INTERVENTIONS FOR CONTRACEPTIVE EFFECTIVENESS: IRANIAN FAMILY PLANNING PROVIDERS’ PERCEPTION**

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**Objectives:** The aim of current study was Iranian family planning providers’ perception of Theory-based interventions for contraceptive effectiveness.

**Method:** This study had two phase. The first phase was providing a journal club among family planning providers. This journal club was designed based on evidence based family planning. The second phase was a qualitative study aimed at exploring family planning providers’ perception of Theory-based interventions for contraceptive effectiveness. Data were collected through four semi-structured Focus Group Discussion (39 family health providers).

**Results:** Overall, designing and implementation of family health education and counselling based on following models were suggested: Motivation interview plus Theory of planned behavior, Motivation interview plus Social cognitive theory, and Health belief models.

**Conclusions:** The study findings can help to family planning policy makers and health providers for designing counselling and interventions with a theoretical base approach.

**P0240**
**CLASSIFICATION OF STRATEGIES FOR ENHANCING THE CONTRACEPTIVE USE IN HIV-POSITIVE WOMEN: USING THE NOMINAL GROUP TECHNIQUE MEETING**

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**Objectives:** The study aimed to classification of strategies for enhancing the contraceptive use in HIV-positive women by using the Nominal Group Technique (NGT) Meeting.

**Method:** A panel of expert discussion was held by NGT in December 2014 with 16 sexual and reproductive health care providers who were selected through purposive sampling method. This study was conducted in Mazandaran University of Medical Sciences, Sari, Iran. NGT Procedure was conducted in four steps, including: Presentation of the task with Silent Idea Generation, Item Sharing with Round-Robin Recording, Discussion and Clarification, and Voting and Ranking.

**Results:** Overall, 52 items received scores from 3–55 and were further listed as the accepted strategies for enhancing the contraceptive use in HIV-positive women. The five strategies with highest score were suggested including: HIV-positive women call by media and continued educational and counseling programs (55 point); couple counseling intervention based on male participation (37 point); free of charge family planning services (32 point); multifaceted family planning intervention (22 point) and facilitating meeting support intervention (15 point).

**Conclusions:** The interesting finding of this study is the special view point of the specialists and sexual and reproductive health providers to role of counselling program based male participation and supporting system in promoting contraceptive use among HIV-positive women in the context of Iranian society.
each). Twenty six percent of respondents believed that contraception should be limited to women who had completed their families, while 32.4% were either uncertain or disagreed with the safety of contraceptives. The commonest method used was the condom, though contraceptive choice varied with cadre of staff. Desire for another pregnancy was the main reason for discontinuing contraception (51.2%). Older age, religion and marriage positively influenced contraceptive use.

Conclusions: Knowledge and perception of contraception among nurses in Ilé-Ifé is relatively poor. Ensuring accurate information on contraception among this target group of health workers is an important step towards achieving success in the national family planning programme.

P0242
RETROSPECTIVE STUDY OF THE PREVALENCE, LEGAL AND ETHICAL ASPECTS OF STERILIZATION TUBAL LIGATION PROCEDURES IN HIV SEROPOSITIVE WOMEN

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Objectives: HIV infection in women at reproductive age brings up the issue of vertical transmission of HIV. It is estimated 3 million HIV+ pregnant in Brazil and vertical transmission is controlled by anti-retroviral drugs and proper assistance to the parturient and newborn. But many of these women do not want more children, opting for sterilization. A legislation states the necessary procedures to perform the tubal ligation, limiting the implementation at the birth delivery. We tried to analyze the contraceptive guidance, monitoring compliance of legal regulation for surgical sterilization and situations that converge to reinforce this statement to HIV+ pregnant women.

Method: Retrospective study of medical records of the Obstetric Center of Conjunto Hospitalar de Sorocaba (CHS)/São Paulo, Brazil, from January 2008 to January 2012. The cases where the notes in the medical record were not enough to clarify, the patients were called to clarify the doubts.

Results: We had 41 HIV+ parturient in the CHS with 10 women who had tubal ligation at child-birth delivery, 20 women did not have and 11 whose information were not enough to characterize either situation. In no patient was obeyed the stated by the Constitutional Law. The chi-square test revealed no difference between making and not making the sterilization concerning age, proper prenatal care, viral load, CD4 lymphocytes and type of delivery. The pregnant women were among age 17–39 years old at the time of the parturition. For those who did not have sterilization only 8 received contraceptive advice after delivery.

Conclusions: We conclude by the poor condition of the medical records and non-observance of the Constitutional Law. We believe that this practice reflects the lack of ethical oversight. We had 33.3% of the women who underwent to sterilizations procedure, showing that in our population to be HIV+ is a condition that increases the performance of sterilization and that agrees with literature results. No additional element collaborated to reinforcing the indication of sterilization in this group. In summary the reproductive prospects of HIV+ women tend to reflect some degree of misinformation and pre-established concepts by health professionals who treat these women.

P0243
FACTORS AFFECTING INTERVAL FROM LAST DELIVERY TO INITIATION OF CONTRACEPTION AMONG WOMEN ATTENDING A FAMILY PLANNING CLINIC IN NORTHERN NIGERIA

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Objectives: We aim to determine factors affecting the interval between a woman’s last childbirth, to the initiation of contraception in northern Nigeria.

Method: We used a retrospective study design and retrieved all available client cards from the family planning clinic of the Barau Dikko Specialist Hospital (BDSH), between January 1st, 2000 to March 31st, 2014. Information was collected on demographics, reproductive and menstrual history and the client’s contraceptive history. Relevant data was analyzed using the statistical package for social sciences (SPSS) version 15. Missing responses were excluded from analysis. Chi square was used as a test of association with significance level established at p value, 0.05.

Results: 5,992 cards retrieved, all female and married. Majority aged 25–34 years (53.1%), completed secondary education or more (56%) and Muslims (52.3%). Only 4979 cards (83.1%) had correct data on intervals, and 22.1% initiated contraception within 6 months of delivery. Significant factors affecting intervals were age, education, religion, source of information about contraceptive service, number of living children, breast feeding, desire to have more children or not, previous use of contraception and type of contraception chosen at the first visit to the family planning clinic (all p<0.05). Previous pregnancy complication was not (p>0.05).

Conclusions: Findings from the study may help direct future patient education and policies on contraception to increase the uptake of contraception at a time when it is most likely to be effective, especially after a recent delivery. Counseling should always emphasize how side effects of contraception can be minimized, especially among previous users. The importance of educating girls to a reasonable level cannot be overemphasized. Qualitative and prospective studies can be done to further explore findings.

P0245
PERSONAL CONTRACEPTIVE CHOICES AND USE AMONG NIGERIAN TRAINEE GYNAECOLOGISTS: ANY INFLUENCE ON CLIENT COUNSELING PRACTICES?

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Objectives: To determine the contraceptive types Nigerian trainee gynaecologists use and if this affects the way they counsel their clients.

Method: This was a cross-sectional study carried out among 150 Nigerian trainee doctors in Obstetrics and Gynaecology. A pre-tested, self-administered structured questionnaire was used to collect information on demographic characteristics, training cadre and duration, personal contraceptive choices and how such preferences affect patients’ counseling.

Results: Analysis was done using the statistical package for social sciences (SPSS) computer software version 20. The response rate was 62%. Only 57 respondents (53%) were currently using modern forms of contraception while about 26% were not using any. Barrier and intrauterine contraceptive devices were the most frequently used methods. There was poor uptake of male sterilization. More than
a quarter of respondents (25.8%) had several objections to modern contraceptive use. Only 16 respondents (17.2%) felt their personal contraceptive preferences may affect clients’ counseling and contraceptive prescriptions. Contraceptive choice was significantly associated with gender while training cadre and number of children significantly affected counseling practices.

**Conclusions:** Trainees prefer to use natural methods of contraception. However, larger studies will be required to verify that personal objections to contraceptives introduce bias to contraceptive counseling practices.

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**P0246**

**INSERTION OF IUCD WITHIN 48HR POST DELIVERY AND POST ABORTION**

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**Objectives:** To help most women living in Temeke due to their social economic, environment they don’t get a chance to come back to the Hospital Postdelivery or post abortion for contraception, this lead to increase number of unwanted pregnancies due to this we decided to carry own the insertion of IUCD within 48hrs post delivery.

**Method:** The intervention was done from October 2013 to December 2013 of three month.

During this periods clients were cancelled for IUCD, for those who made request after the concealing and qualified to the procedures we provided the service then follow up was done after seven days then after 40 daysDuring the whole period clients were cancelled for complications, explained how to check IUCD frequently, follow up done by telephone, the service was provided for both clients with normal SVD and Cesarea section, post abortion.

**Results:** Total of 20 clients received the service of IUCD Insertion out of this clients one hasconceived after insertion of IUCD post caesarian section after three month, one string was lost, the other two comes with severe bleeding which lead to remove IUCD There were no cases of infection reported.

**Conclusions:** Insertion of IUCD within 48hrs after delivery and post abortion and low resource areas is a good choice with minimum compication.

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**P0247**

**ADDRESSING MISSED OPPORTUNITIES FOR LONG-ACTING FAMILY PLANNING: POSTPARTUM INTRAUTERINE CONTRACEPTIVE DEVICE SERVICES IN PUBLIC HEALTH FACILITIES IN ETHIOPIA**

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**Objectives:** The objective was to determine whether capacity building of health care workers and facilities to provide postpartum intrauterine contraceptive devices (PP-IUCD) increased service uptake.

**Method:** The Integrated Family Health program (IFHP) started a 12-month PP-IUCD learning phase/pilot in 49 health centers (HCs) in July 2013, by providing a skills-based training on PP-IUCD to 150 providers and equipping the HCs with relevant supplies. IFHP also mentored the providers throughout the pilot. Program review meetings were conducted quarterly to assess this learning phase. Data were collected on characteristics of all women who received PP-IUCD during that period.

**Results:** IFHP’s competency-based skills training and post-training logistics support allowed services to be initiated immediately. In the 12-month period, 49 HCs attended 8,374 deliveries, of which 1,647 (19.6%) women received the PP-IUCD; 63% were post-placental, 30.9% early postpartum (within 48 hours) and 4.3% were intra-caesarian insertions. The majority (69.5%) of clients were 20–35 years. 27.5% of the women had four or more living children. At 6-week follow-up visits, 25 (1.5%) expulsions were reported and removal performed in 16 (0.97%) clients. The main reason for removal was increased vaginal bleeding. Another 21 clients reported minor abdominal discomfort, increased vaginal discharge, and headache.

**Conclusions:** IFHP has addressed unmet need for long-acting contraception, as demonstrated by the percentage of women who accepted this method, and the insignificant removal and expulsion rates. Through training, logistics support, and follow-up, it is possible to avail PP-IUCD services at HCs and increase the postpartum contraceptive method mix.

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**P0248**

**NURSES AND CONTRACEPTIVE VAGINAL RING: TO USE OR NOT TO USE?**

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**Objectives:** To assess the perception towards a contraceptive vaginal ring amongst nurses.

**Method:** A cross-sectional study was designed involving nurses in UKM Medical Centre (UKMMC), who were randomly selected. A questionnaire was constructed in three sections based on demographic, gynaecological history and perception towards a contraceptive vaginal ring, NuvaRing®. Data was analyzed by using (SPSS) version 17.0 and p value of <0.05 was considered statistically significant.

**Results:** 422 (84.4%) nurses returned the 500 questionnaires distributed. 58% were not on contraception during the study. 52% admitted to have their last pregnancy unintendedly. 59% claimed to have heard of NuvaRing®, yet none was using it. Only 26.3% perceived it as a suitable contraception. Perception was not significantly associated with age, ethnicity, years of service, discipline, marital status and partner’s education level. Reasons stated for unsuitability were discomfort towards self-insertion (72.2%), pain during sexual intercourse (70.2%), feared that their sexual partners might feel it (68.9%), hormonal side effects (62.2%) and fear of weight gain (59.7%).

**Conclusions:** The misconceptions regarding NuvaRing® among the nurses must be addressed. The challenge is to correct the misconceptions as soon as possible. Otherwise vaginal contraceptive ring would not benefit those who are in need of an efficient contraceptive.

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**P0249**

**HEALTH CARE PROVIDERS BALANCING NORMS AND PRACTICE: CHALLENGES AND OPPORTUNITIES IN CONTRACEPTIVE COUNSELLING TO YOUNG PEOPLE IN UGANDA – A QUALITATIVE STUDY**

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**Objectives:** This study aims to explore health-care providers’ perceptions and practices regarding contraceptive counselling to young people.

**Method:** We conducted 27 in-depth interviews with doctors and midwives working in seven different health facilities in central Uganda. Transcripts were transcribed verbatim and data was analysed using thematic analysis.

**Results:** The main theme “Health care providers’ ambivalence in the encounter with sexually active young people’ emerges from two subthemes describing how (i) health care providers echo the societal norms regarding accepted sexual practice among young people, yet (ii) takes a pragmatic approach to contraceptive counselling, although they lack skills, resources and knowledge to successfully provide appropriate services. Despite existing policies for young people’s sexual and reproductive health in Uganda, health care providers are not sufficiently equipped to provide adequate contraceptive coun-
Conclusions: The conflicting personal- and professional values health care providers experience in their encounter with young people, in addition to their self-identified lack of knowledge, results in inadequate and inappropriate health services in response to the young people’s changing sexual behaviour. We argue that a clear policy underpinned by a clear strategy with practical guidelines should be implemented alongside with in-service training including value clarification and attitude transformation to equip providers’ to be able to better cater to young people seeking sexual and reproductive health advice.

**P0250**

**SEXUAL LIFE AND CONTRACEPTIVE USE AMONG BRAZILIAN TEENAGE GIRLS WITH CANCER: PRELIMINARY RESULTS**

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**Objectives:** The objective of this study is assess the use of contraceptive methods by adolescent girls with cancer.

**Method:** This observational cross sectional survey is interviewing adolescent girls (10–19 years) receiving treatment at the outpatient clinic at a single institution specialized in the treatment of cancer in Sao Paulo, Brazil (Oncologia Pediátrica - GRAACC/Escola Paulista de Medicina). A questionnaire specifically created for this study was used to collect information on gynecological, obstetric history and use of contraceptive methods.

**Results:** We present data on the first 35 adolescents. Average age 15.2 (± 2.6 standard deviation) years most were Caucasians (74.2%), single (97.1%), average age of menarche was 12 (± 2.2 SD) years. Most adolescents showed bone tumor (31.4%); leukemia (28.6%). Approximately 23% were sexually active before the diagnosis of cancer and average age at first intercourse was 13.5 years (± 0.5 SD). Only 40% of these informed that they had received contraceptive counseling. A total of 43% had never used any contraceptive method and two (5.7%) had at least one previous unplanned pregnancy. The most frequently methods were hormonal contraceptives (70%).

**Conclusions:** Most adolescents in treatment for cancer have been using hormonal contraceptives. However, over half of them report inadequate use of the methods nor guidance about the importance and the risks of a pregnancy during the treatment period and cancer remission time. There is need for more information and counseling among this population. Furthermore, there is need to establish management protocols on the appropriate dose of hormones, orientation of patients and alternative methods.

**P0251**

**DEMONSTRATING EFFECTIVENESS OF A PPFP STRATEGY IN PROMOTING POST-PARTUM FAMILY PLANNING (PPFP) IN BIHAR**

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**Objectives:** Demonstration of effectiveness of Comprehensive PPFP strategy with “No-missed-opportunities” approach to address high unmet need during postpartum period in the five districts of Bihar. Tremendous increase in institutional delivery at public health facilities, post introduction of Janani Suraksha Yojaya (JSY- conditional incentive scheme to promote institutional delivery) from 19.9% in 2005–06 (DLHS-3) to 40.8% in 2009 (UNFPA- Concurrent Assessment) provides perfect opportunity to address high unmet need during post-partum period. Bihar has the highest TFR in the country of 3.5 (SRS 2012) with three out of five births spaced less than 36 months apart while almost one-third of births are spaced at less than 24 months (NFHS-3–2005–06).

**Method:** Program intervention was conducted in 18 facilities of 5 districts of Bihar from June 2012 to Feb 2015. The target population were postpartum women who came to the target facilities. The interventions were based on designing and implementing activities that promote and enable the provision of quality and comprehensive PPFP services to the clients at all possible points of contact with the health system. Data collection was done through regular structured program reports and baseline/endline surveys.

**Results:** Significant increase proportion of post-partum women accepting Long-Acting Family Planning method (LAPM- Post-partum IUCD and Post-partum Sterilization from 1.3% to 12.3% with increase in CYP from 23036 from baseline quarter to 106170 in end line. Significant increase in levels of awareness of healthy timing & spacing of pregnancy (HTSP) by 13.1%, return to fertility (RTF) by 32.4% and postpartum family planning (PPFP) methods among postpartum women (delivered within the last six-nine months) by 12.6%. There was more than 10% reduction in unmet need among the women in the postpartum period (in catchment area) from baseline.

**Conclusions:** Successful demonstration of feasibility of PPFP strategy to address the high unmet need during post-partum period. “No-missed-opportunities” approach (targeting to utilize every client’s contact with the system) and increasing the availability of basket of choice of contraceptive choice during postpartum period improves client awareness and acceptance addressing to the unmet need for family planning.

**P0252**

“I AM VERY MUCH AFRAID OF ITS SIDE EFFECTS BY LISTENING TO WHAT PEOPLE SAY”: REASONS GHANAIAN WOMEN DO NOT USE CONTRACEPTION

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**Objectives:** It has been estimated maternal mortality could be reduced by 25–30% if women had access to and used modern methods of contraception. In the most recent Ghana Demographic and Health Survey, knowledge about contraception is almost universal; 95% of those surveyed knew of at least one form of modern contraception. However, current use, 13.2% for modern methods, is lower than would be expected given the fertility inclinations of women and their male partners. This study sought to qualitatively investigate reasons for low-use of contraception in Ghana.

**Method:** This study sought to understand the social and personal reasons why young women at risk of unwanted pregnancy were not willing to use contraception. Using a qualitative design, women being treated for post-abortion complications at three hospitals in the Ashanti region of Ghana, the most populous region of the country, as well as the region with the highest maternal mortality ratio, were interviewed. Healthcare providers, including nurses, midwives, and physicians who provide post-abortion and family planning care were also interviewed. Community-based focus groups were held with older women as well as men, separately.

**Results:** None of the women included in this study were using contraception at the time of conception. All participants reported they knew about various contraceptive methods and most had service delivery points in their communities. The explanation women provided for not using contraception was multiple and complicated. Categories emerging from the data were grouped into three themes: Side Effects, Reception by Health Staff, and Religion. All three of these themes fit into the overarching paradigm of social network theory as many of the sources of information are not from individual experiences, but rather from what the participants have heard from others.

**Conclusions:** To increase the acceptability of modern contraception, interventions aimed at refuting commonly held misconceptions are sorely needed. Improving the quality of services that women receive when they access services, and ensuring that health workers are well

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supported to provide the highest quality care possible is highly important.

**P0253**

**IN AFRICA THERE WAS NO FAMILY PLANNING, EVERY YEAR YOU JUST GIVE BIRTH**: A QUALITATIVE ANALYSIS OF CONTRACEPTIVE KNOWLEDGE, ATTITUDES AND PRACTICES AMONG AFRICAN REFUGEE WOMEN AFTER RESSELTMENT

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**Objectives**: To determine contraceptive knowledge, attitudes and practices among African refugee women after resettlement to the United States.

**Method**: Six focus groups (FG) were conducted with resettled Somali (n=41) and Congolese (n=26) refugee women in a large western United States city between May and August 2014. Participants were recruited via community leaders and refugee service organizations. FG were undertaken in the women’s native language using a semi-structured interview guide of open-ended questions designed to elicit understanding of family planning knowledge, attitudes and practices. FG Audio recordings were translated and transcribed verbatim by externally located certified translators then checked for accuracy. Two researchers utilized modified grounded theory to analyze transcripts and develop themes using Atlas.ti software.

**Results**: Congolese women were younger (mean age: 33 v. 38), less likely to be married (33% v. 38%), had fewer living children (mean 3 v. 4) and were resettled more recently (median 19.5 v. 54 months) than Somali women. Use of contraceptive methods to space births was well accepted by both groups. Congolese women identified understanding of the utility of limiting births while Somali women voiced opposition to birth-limiting. Commonly described birth-spacing methods included breastfeeding, abstinence and the calendar method. Modern methods (pill/patch/ring/implant/IUD) were rarely employed though many women wished to learn more about these methods and where to obtain them.

**Conclusions**: Resettled African refugee women demonstrate limited knowledge of modern family planning methods and a strong desire for education regarding contraception for birth spacing. Disparate beliefs about birth limiting exist between resettled Congolese and Somali refugee women. Development of cultural specific education materials and counseling modalities that respect cultural beliefs and norms will be paramount to increasing modern family planning access and utilization among this population.

**P0254**

**CONTRACEPTIVE METHOD SELECTION AFTER COUNSELING**

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**Objectives**: To describe the Reproductive Life Index (RepLI) and present the utilization of the Family Planning Quotient (FPQ) in three cohorts of women.

**Method**: FPQ is a ratio of the number of children a woman has divided by the number she wants, at one time point. FPQ less than 1 indicates a woman wants more children and FPQ greater than 1 indicates a woman has achieved or exceeded her family plans. FPQ can be used on a population level to capture overall reproductive health status. FPQ was sampled in three populations: 468 family planning providers (FPP) in a national survey of family planning providers, 1,780 patients presenting for first-trimester abortion (FAP), and 124 patients in the Title X program (TXP).

**Results**: Among FPP, 59.2% had a quotient less than 1, 39.3% equal to 1, and 1.5% greater than 1. Among FAP, 35.9% had a quotient less than 1, 58.9% equal to 1, and 5.2% greater than 1. Among TXP, 44.4% had a quotient less than 1, 49.2% equal to 1, and 6.5% greater than 1. FPQ were significantly different when stratified by age among the FPQ (p < 0.001), FAP (p < 0.001), and TXP (p = 0.004).

**Conclusions**: RepLI/FPQ is an innovative tool to assist patients and providers in the discussion of reproductive health plans and should be further implemented to demonstrate its impact on reproductive planning.

**P0255**

**UTILIZATION OF THE FAMILY PLANNING QUOTIENT IN THREE COHORTS OF WOMEN**

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**Objectives**: To assess the risk of unintended pregnancy among women at a county jail intake. We will assess the interest in and need for immediate emergency contraceptive administration, as well as future contraceptive desire.

**Method**: We performed a cross-sectional in-person survey at the time of Cook County Jail intake. Study participants included women...
18–50 years of age who consented to the study. The interviews were performed on selected evenings from June 2011 to August 2012. Study questions were multiple-choice close-ended questions. Topics focused on included current pregnancy risk, current pregnancy desire, previous contraceptive use, and desire for future contraceptive use.

**Results:** A total of 194 women completed the survey. Excluding women not at risk for pregnancy (7.2% currently pregnant, 17.5% surgically sterilized/postmenopausal, and 4.1% using long-acting reversible contraceptives), 78% of women who were at risk for pregnancy (n=137) did not desire pregnancy. Among these women at risk for unintended pregnancy, 9 (8.4%) had unprotected intercourse within 5 days prior to survey administration. When asked about emergency contraception, most women (81.4%) would be interested if available. Additionally, 72.7% of women would be interested in contraceptive supplies if provided free at release from jail.

**Conclusions:** Reproductive age women presenting to county jail are at significant risk for unintended pregnancy and could benefit from availability of emergency contraception at intake and contraceptives at release.

**P0257**

**UNINTENDED PREGNANCY AMONG HIV POSITIVE PREGNANT WOMEN IN ENUGU, SOUTH EAST NIGERIA**

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**Objectives:** To determine the prevalence and factors associated with unintended pregnancy among HIV positive pregnant women in Enugu, South east Nigeria.

**Method:** A questionnaire based cross sectional study among 180 HIV positive pregnant women receiving antenatal care at two tertiary health institution in Enugu from 1st March to August 31, 2012. All HIV positive pregnant women were counselled for the study and their informed consent to participate in the study was obtained. The women were interviewed with a pretested questionnaire. Data were collected and analyzed using Epi info statistical software version 17. Ethical approval was obtained from the hospital Ethics committee.

**Results:** Overall, 180 HIV positive pregnant women were recruited (mean age = 30.5±4.4 years) and 67 (37.2%) declared that their pregnancy was unintended. Majority were married (88.1%, n=159), Christians (93.3%, n=168) and had post primary education. Most of them were on antiretroviral therapy and had future fertility intention. Participant with regular partners (married or co-habiting) had a significantly higher rate of unintended pregnancy than those with unstable partner (61.9%, n=13/21 V 34%, 54/159; χ²=5.06, p value = 0.029). Age, parity, educational level, current intake of ART, did not significantly affect the prevalence on unintended pregnancy.

**Conclusions:** A significant number of HIV positive pregnant women declared their pregnancies as unintended. Modern contraceptives should be made readily available and accessible to HIV positive women as we hope to eliminate mother to child transmission of HIV and new paediatric HIV infection.

**P0258**

**THREE YEARS FOLLOW UP: MULTICENTRE RANDOMISED CLINICAL TRIAL OF TWO IMPLANTABLE CONTRACEPTIVES FOR WOMEN, JADELLE AND IMPLANON**

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**Objectives:** The main objectives were to compare the 3 year cumulative rates of contraceptive effectiveness, method continuation, the incidence of adverse effects between the two implants, and incidence of common complaints associated with use of progestogen-only contraception and that of the non-hormonal TCu380A IUD.

**Method:** This was a randomized open parallel group trial of the 1-rod etonogestrel and the 2-rod levonorgestrel contraceptive implants with a 1:1 allocation ratio, and a non-randomized control group of women using the TCu380A IUD. The study took place in family planning clinics (centers) in Brazil, Chile, Dominican Republic, Hungary, Thailand, Turkey, and Zimbabwe.

**Results:** 2,963 women were randomised to three arms; 995 ENG implant users, 997 LNG implant users and 971 IUD users were analysed. In the ENG and LNG groups, respectively, mean insertion durations were 51 (SD 50.2) and 88 (SD 60.8) seconds. At follow-up within six weeks after insertion, all implants were in situ while 2.1% of IUDs were expelled. Results for 3 year follow up also shows that LNG-implant has significantly lower 3-year cumulative rate of method discontinuation compared to ENG-implant. Common adverse effects comparing implants and IUDs are discussed. At 3-year contraceptive effectiveness was similar between Jadelle and Implanon.

**Conclusions:** The results show that both implants are safe, highly effective and rapidly reversible methods of contraception up to three years of use. The result also discusses the reason for discontinuation, main side effects of implants versus IUD and implications of the results on policy and practice.

**P0259**

**HAEMATOMETRIA AND ACQUIRED GYNAETRESIA FOLLOWING INDUCED ABORTION**

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**Objectives:** To present a peculiar case of unmet need of contraception in rural Nigeria.

**Method:** This is a case presentation.

**Results:** I present a 23 year old lady P3+0 A3, 2 boys and one girl referred from a private hospital on account of absence of Lochia. The lady had unintended pregnancy and inserted native concoctions in the vagina. After some time she realized she did not succeed and carried the pregnancy to term. She had emergency Caesarean section on account of cervical stenosis. However she was referred on account of absence of lochia. Ultrasound revealed haematometria. She had EUA, vaginoplasty and cervical dilatation.

The findings were: normal vulva; the upper 1/3 of the vagina was closed; stenosed cervix; uterus about 16 weeks size.

**Conclusions:** The lesson from this case reveal the unmet need of contraception in our rural areas. Many clients need to space and limit their family size. Unsafe abortion with its attendant complication continue to thrive in both rural and urban communities in Nigeria.

**P0260**

**ASSESSMENT OF MENSTRUAL DISORDERS AFTER ESSURE Hysteroscopic Sterilization**

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**Objectives:** To verify that the placement of the Essure device cause positive or negative changes in menstrual cycle (menstrual flow and dysmenorrhoea).

**Method:** Three months after the insertion of the Essure 131 patients were interviewed. They were asked if there were changes in menstrual flow and in the intensity of dysmenorrhoea. The device position was checked by ultrasound in the same occasion.

**Results:** Analysis of the interviews indicated 63.8% that not noticed change in dysmenorrhoea, 21.5% reported a slight increase and 14.6% a slight decrease. On the other hand 32.8% reported an increase in menstrual flow, 53.4% not realized any difference and 13.7% described a decrease in menstrual flow.
Conclusions: Essure is described as an extremely safe contraceptive method however patients should be alerted to possible alterations in the menstrual cycle after its insertion. Also there may be a relative contraindication for patients who already have an increased menstrual flow or moderate dysmenorrhea.

P0261
OXIDATIVE STRESS DURING CHRONIC ADMINISTRATION OF COMBINED ORAL CONTRACEPTIVES
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Objectives: To evaluate the severity of oxidative stress in patients receiving long-term COC and determine the effectiveness of its correction by vitamin and mineral preparations.

Method: The study involved 21 healthy non-smoking women of reproductive age (mean age 30.8 years) who were taking COCs within 6–12 months. Patients were determined antioxidant defense enzymes: superoxide dismutase (SOD), glutathione peroxidase (GTP) and markers of oxidative stress: malondialdehyde (MAD) and trace-antioxidant enzyme cofactors - zinc, copper and selenium. Laboratory tests were performed at baseline and one month after the application of vitamin-mineral complex containing vitamins A, C, E, B and zinc, selenium and magnesium.

Results: The mean duration of COC therapy was 7.9 months. Before treatment there was a significant reduction of antioxidant enzymes. Median SOD was 168 U/ml, GTP - 4202.8 U/ml, selenium - 80.6 mg/L, zinc, 790.8 g/L and the ratio of zinc/copper - 0.932. MAD levels were within the normal range (median - 0.462 nmol/ml), which is apparently due to the lack of significant oxidative damage of membrane structures. After 1 month of treatment it was observed increasing rates of SOD, GTR, selenium, zinc, and the ratio of zinc/copper. Median amounted to 178.8 U/L, 4383.6 U/L, 96.9 g/L and 1.083, respectively.

Conclusions: Long-term use of COCs is associated with the activation of oxidative stress, depletion of antioxidant defense components. The use of complex-vitamin-mineral preparations effective in the correction of oxidative stress in patients receiving COCs.

P0262
AWARENESS AND USE OF THE FEMALE CONDOM AMONG UNDERGRADUATES IN A UNIVERSITY IN ENUGU, NIGERIA
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Objectives: The aim of the study was to determine the prevalence of the use of the female condom and sexual activity among young women in a tertiary institution of learning in Enugu, Nigeria.

Method: A questionnaire based cross-sectional study was done. Statistical analysis was by descriptive and inferential statistics at 95% level of confidence.

Results: A total of 313 female undergraduates were studied. Their mean age was 23.9 years. About 77% had knowledge of female condom. Fifteen percent had used the female condom. The potential dropout rate was 51% because it was costly and not available. The feature of female initiation and control of the device was the principal reason for intention to continue to use the female condom. The socio-demographic characteristics that were significantly associated with the use of the female condom included marital status ($\chi^2=7.79, p=0.01$), religion ($\chi^2=5.67, p=0.02$), course of study ($\chi^2=14.26, p=0.00$) and previous sexual exposure prior to university admission ($\chi^2=3.48, p=0.00$).

Conclusions: There was a low use rate for the female condom despite a high level of awareness suggesting a low level of acceptability for the device among young women in institutions of higher learning in Enugu. Interpersonal communication and counseling will help promote its wider use as it has the potential to decrease unwanted Pregnancy and the spread of sexual transmitted infection/HIV/AIDS.

P0263
THE IMPORTANCE OF KNOWLEDGE AND ATTITUDES OF GYNECOLOGISTS REGARDING UNPLANNED PREGNANCY AND USE OF COMBINED ORAL CONTRACEPTIVES: A LATIN AMERICAN SURVEY
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Objectives: Unintended pregnancy (UP) is a public health problem and an unmet medical need worldwide. It was estimated that in the year 2012, almost 213 million pregnancies occurred and it was also estimated that 85 million pregnancies (40%) of all pregnancies, were unintended and 38% ended in an unplanned birth. Family planning programs have an important role in the reduction of unplanned pregnancies. The objectives of this study were to assess knowledge and attitudes of Latin American (LA) Obstetricians and Gynecologists (OBGYN) regarding UP and some aspects related to the use of combined oral contraceptive (COC).

Method: A survey was conducted in 2014 during a scientific meeting organized to update information about contraceptive methods to OBGYN who provide attention in contraception in 12 Latin American (LA) countries. The OBGYN who agreed to participate were invited to respond a multiple-choice questionnaire through an electronic system after each lecture. There were five questions for each issue and five options of answers based on the content of each lecture. The questions were developed specifically for this study by the researchers and reviewed by an expert group of LA OBGYN who did not participate of the meeting.

Results: A total of 210 OBGYN participated in the study. Only ~50% were aware of COC failure rate and they believed women frequently forgot to take a pill and did not know what to do in these situations. Regarding venous thromboembolism (VTE), most of the OBGYN were not aware of the relationship between the length of COC use and the risk of VTE. Albeit they were aware of the COC’s benefits, were less prone to prescribe COCs to protect against ovarian and endometrial cancer, and some had doubts about the association between COC use and cancer risk.

Conclusions: The study identified deficiencies in the knowledge of the interviewed LA OBGYNs regarding COC’s contraceptive failure and that they were not prone to prescribe COCs to reduce the risk of ovarian and endometrial cancer and almost one-quarter had doubts about the association between pill intake and risk of cancer development. OBGYNs should counsel their patients regarding the risks and non-contraceptive benefits of COC; however, it is necessary that OBGYNs be updated regarding all aspects of COC use. Our results could be useful to medical schools, scientific societies, and policy makers to increase a continued medical education in this manner.

P0264
INTRAUTERINE CONTRACEPTION IN NULLIPAROUS PATIENTS
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Objectives: To evaluate the insertion, tolerability and effectiveness of levonorgestrel containing intrauterine contraception in nulliparous patients.

Method: Although intrauterine contraception is highly effective and safe method, its widespread use among nulliparous patients is not...
widely accepted. After national guideline promoted its use, we started a structured contraceptive counselling to all patients, discussing the possibility of intrauterine contraception also for nulliparous patients. After pre-insertion counselling 45 levonorgestrel containing intrauterine systems were inserted. We registered pain during insertion with a visual analogue scale and any side effects and complaints related to the use of intrauterine device during follow up (3 months - 4 years).

**Results:** All insertions were successful, with no pharmacological cervical dilatation or pre-insertion pain relief. On request we supported pain reduction after insertion. Neither pregnancy, nor perforation or severe side effects were reported during the follow up period. One intrauterine device had to be removed because of bleeding disorder.

**Conclusions:** Levonorgestrel containing intrauterine contraception is an easy to perform, effective and well tolerated method of contraception even in nulliparous patients.

**P0265**

**PROFILE OF POST-PARTUM INTRAUTERINE CONTRACEPTIVE DEVICE (PPIUCD) ACCEPTORS AT DIPHU CIVIL HOSPITAL, KARBI ANGLODISTRICT IN THE STATE OF ASSAM, INDIA**

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**Objectives:** To study the socio-demographic characteristics and the outcome in Post Partum Intrauterine Contraceptive Device acceptors at Diphu Civil Hospital, Karbi Anglong district in the state of Assam, India.

**Method:** A hospital based prospective study was done. All women who came for delivery at Diphu Civil Hospital from January 2013 to December 2014 (24 months) were informed about PPIUCD. Those women who agreed and had given consent, PPIUCD insertion was done. These women were then asked to come for follow-up within the first 6 weeks after discharge from the hospital and thereafter every 6 months follow-up was done.

**Results:** Out of the 307, 79 (25.73%) were given PPIUCD within 10 minutes, 14 (4.56%) within 48 hours and 214 (69.70%) intra-caesarean insertion were done. Majority of the PPIUCD acceptors (45.93%) were within the age group of 21–25 years, multiparous (51.14%), Hindu by religion 193 (62.87%) and belonged to the lower middle socio-economic status. Majority of the PPIUCD acceptors were literate 226 (73.62%). Follow-up could be done in 281 (91.53%) women out of 307 PPIUD acceptors. The most common complain was missing string 83 (29.54%) followed by other complaints like pain in the lower abdomen, burning micturition and bleeding P/V 8 (2.8%). Self removal was reported in 3 (1.07%).

**Conclusions:** Majority of the women who received PPIUCD showed high level of satisfaction with the choice of contraception and there were no reports of spontaneous expulsion in any of the women under the study and very few had complained of pain, burning micturition and bleeding P/V. Though missing string was reported by 29.187% of women but on examination the string was found to be in situ in all the women.

**P0266**

**EFFECTIVENESS OF NURSE/MIDWIVES AS PROVIDERS OF PPIUCD SERVICES COMPARED TO PHYSICIANS IN INDIA**

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**Objectives:** To assess if the nurse/midwives are as skillful as physicians in PPIUCD insertions by measuring the complication rates of PPIUCD insertions performed by them.

**Method:** Secondary data from ongoing PFP program in seven states was analyzed using case control design. The sample size consisted of 2215 PPIUCD clients. The cases and controls were matched by time and facility. Facilities where both physicians and nurse/midwives conducted insertions and had reported ≥ 5 follow-up findings of expulsion/infection were selected. The primary exposure was type of PPIUCD provider and the outcomes studied were expulsion and infection. Other possible confounding factors such as details of provider trainings were also collected.

**Results:** At 137 facilities, 792 and 382 cases of expulsion and infection, respectively and 1041 cases of “No complaints” were included in the analysis. The provider type, physician or nurse/midwife, was not significantly associated with either expulsion, OR 2.06 (95% CI: 0.99–4.26) or infection, OR 0.91 (95% CI: 0.45–1.84). However, type of provider trainings, on-site compared to centralized, were significantly associated with expulsion in insertions conducted for both types of providers, OR 2.31 (95% CI: 1.91–2.80).

**Conclusions:** PPIUCD insertions by nurses/midwives at public health facilities are equally safe compared to those performed by physicians. Addition of nurses/midwives to the PPIUCD provider base would increase access of this method for postpartum women at public health facilities. However, quality of all PPIUCD trainings should be standardized to minimize adverse outcomes by all providers.
**P0268**

RELATIONSHIP BETWEEN THE USE OF LONG ACTING REVERSIBLE CONTRACEPTIVES UP TO THE MENOPAUSE AND THE DECLINE IN THE NUMBER OF FEMALE AND MALE STERILIZATION: A PILOT STUDY

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**Objectives:** The aim of the study was to assess the relationship between the use of long acting reversible contraceptives ([LARC; copper-intrauterine device [Cu-IUD], the levonorgestrel-releasing intrauterine system [LNG-IUS] and sub-dermal implants]) and the depot-medroxyprogesterone acetate (DMPA) and the decline in the number of male and female sterilization at a Brazilian clinic established over 30 years ago.

**Method:** In this retrospective study we reviewed the medical charts of women who consulted at the Department of Obstetrics and Gynaecology, University of Campinas, Brazil looking for a contraception method over the period from 1980 January 2 through 2012 December 31. Women attending the clinic who chose one type of LARC or the DMPA and kept their use until reaching menopause or who discontinued the method use because of surgical sterilization were included. Women who received LNG-IUS for therapeutic purposes were excluded. Cumulative continuation rates and removals due to sterilization or to the menopause were evaluated using life-table analysis.

**Results:** A total of 332 women used a LARC method or DMPA until the menopause and 555 discontinued because of surgical sterilization. The percentage of women who discontinued because of menopause was: 67.5% Cu-IUD; 25.0% DMPA, 6.3% the LNG-IUS- and 1.2% implant-users. The women who discontinued because of female or male surgical sterilisation were 67.7% Cu-IUD; 25.1% DMPA, 6.3% the LNG-IUS- and 0.9% implant-users. With this review, we could establish that for the last 15 years, as the number of women using these methods up to the menopause increased, the likelihood of discontinuing because of male and female sterilization decreased.

**Conclusions:** During the last 10–15 years, the number of women who continued to use LARC methods and DMPA up to menopause increased as the number of women who discontinued these methods to undergo female or male sterilisation decreased. The use of LARC and DMPA up to the menopause is an important option to avoid male or female sterilisation. Since the permanent contraception requires a surgical procedure, it implies possible complications. When women increase the use of Cu-IUD, LNG-IUS, implants or DMPA, they opt for safe and effective contraceptive method and avoid unnecessary surgeries.

**P0269**

COMPLIANCE AND DEGREE OF SATISFACTION OF NULLIGRAVID AND PAROUS WOMEN USING INTRAUTERINE CONTRACEPTIVE DEVICES

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**Objectives:** To evaluate compliance and degree of satisfaction of nulligravidas and parous women using intrauterine device (IUD).

**Method:** A cross-sectional cohort study was conducted comparing nulligravidas and women who had already given birth and who had had an IUD inserted between July 2009 and November 2011 at the Instituto de Medicina Integral Prof. Fernando Figueira (IMIP). A total of 84 nulligravidas and 73 women who had previously given birth were included. Statistical analysis was carried with Student’s t-test and Mann-Whitney test were used for numeric variables, while Pearson’s chi-square test of association and, whenever pertinent, Fisher’s exact test were used for categorical variables. A survival curve was constructed to establish the likelihood of continuing use of the IUD.

**Results:** When compared with parous women, nulligravidas had a higher education level. No statistically significant differences were found between the nulligravidas and the women who had already given birth with respect to information on the use of the IUD, prior use of other contraceptive methods, the reason for having chosen the IUD as the current contraceptive method, reasons for discontinuing and side effects, compliance and degree of satisfaction. The survival curve for continuing use of the IUD failed to show any difference between the groups.

**Conclusions:** Nulligravida women have a higher education level when compared with parous women using IUD. There was no difference with respect to compliance or the degree of satisfaction with the method.

**P0270**

EPIDEMIOLOGY OF INFERTILITY IN YOUNG WOMEN AGED 18–25 YEARS LIVING IN TRANSBAIKAL REGION OF RUSSIA

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**Objectives:** Reproductive health is a priority global health area: the target for Millennium Development Goal 5B is to provide universal access to reproductive health by 2015. Regional estimates of prevalence of and tends in infertility are needed to target prevention and treatment efforts. The aim of this study was to examine the epidemiology of infertility in young female and reproductive plans of these women.

**Method:** The present study was epidemiological; it was approved by the Ethics Committee of the Chita State Medical Academy (Russia). 1225 young women in age of 18–25 years, living in Transbaikal Region (Eastern Siberia) of Russia, were included in this study. We estimated prevalence of primary and secondary infertility. Methodological approaches recommended by WHO were used.

**Results:** We found that in accordance with WHO criteria of fertility, 25.9% (318/1225) of young age women were fertile, 19.4% (238/1225) alleged fertile. 35.0% (428/1225) of women used contraception (group of unknown fertility). A total 241 (19.7%) couples were considered as infertile. This index is exceeds the 15% critical level defined by WHO. The prevalence of primary infertility was higher than secondary infertility: 13.0% (159/1225) vs 6.7% (82/1225; p=0.000), respectively. 85.1% (205/241; p=0.000) of young infertile women did not seek medical care because they do not have reproductive plans.

**Conclusions:** Regional estimate of prevalence of infertility in young women aged 18–25 years living in Transbaikal Region of Russia showed negative sociodemographic trends. The index of infertility (19.7%) in this group of females is exceeds the 15% critical level defined by WHO. 85.1% of young age infertility women did not plan pregnancy. Further research is needed to identify the etiological causes of these patterns and trends.

**P0271**

DOES POST ABORTION AND FOLLOW UP COUNSELLING HELP TO IMPROVE POST-ABORTION CONTRACEPTION UPTAKE? AN ANALYSIS FROM THREE HIGH FOCUSED COUNTRIES OF SOUTH ASIA REGION: INDIA, NEPAL & BANGLADESH

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**Objectives:** Postpartum period is an important time to initiate contraception as women are accessing the health-care system and might have increased motivation to avoid another immediate pregnancy. Short birth intervals are associated with high risk of adverse maternal health outcomes. This study is an attempt to analysis Global Comprehensive Abortion Care Initiative (GCACI) project data of three high focused south Asian countries namely India, Nepal & Bangladesh. This study analyzed last six years (2009 to 2014) data from 35 clinics to
assess the importance of pre-post abortion counseling in regards to post-abortion contraception uptake.

**Method:** Improved access to comprehensive abortion care and contraceptive services as integral components of sexual and reproductive health. The present study is based on the data of Global Comprehensive Abortion Care Initiative (GCACI) project. Under this study, firstly the data was compiled of last six years’ service statistics from 35 clinics (17 from India, 10 from Nepal and 8 from Bangladesh). Secondly, each country at aggregated level was analyzed, total number of clients received an abortion or treatment of incomplete abortion services, client received post abortion, follow up counselling and finally proportion of client uptake post-abortion contraception methods.

**Results:** The service statistics data revealed that across the three countries, a total of 1,021,341 clients opted for either abortion or treatment of incomplete abortion services in last six years. Out of this, almost 96.3 percent of clients received post abortion counselling for adopting contraception methods. Further, data highlighted that 90.0 percent of clients also received follow up counselling. It is interesting to note that out of 96.3 percent of client who received post abortion counselling, more than 93% of client adopted contraceptive methods. However across all the countries, injectable, pills and condoms are most adopted post abortion contraception methods by client.

**Conclusions:** Promoting post abortion contraceptive use is an important programmatic strategy to improve the health and well-being of women and newborns. Short birth intervals and unintended pregnancy are associated with increased risk of adverse maternal and neonatal health outcomes. The study result suggested that focused quality post abortion and follow up counseling significantly increased the acceptance and use of contraception methods among clients who had received abortion related services at clinic.

**P0272**

**INCREASED USE OF LONG-ACTING REVERSIBLE CONTRACEPTION AMONG MALAWIAN WOMEN AFTER IMPLEMENTATION OF A PACKAGE OF FAMILY PLANNING INTERVENTIONS**

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**Objectives:** Almost half of pregnancies in Malawi are unintended. One strategy to reduce unintended pregnancy is to expand modern contraceptive method mix and ensure that the most effective reversible contraceptives, long-acting reversible contraceptives (LARC), are available at health facilities. Three LARC methods are available in Malawi: the 3-year implant, the 5-year implant, and the copper intrauterine device (IUD). Our objective was to implement a package of family planning (FP) interventions at a peri-urban health centre in Malawi to expand its modern contraceptive method mix and decrease reliance on short-acting reversible contraception (SARC).

**Method:** We implemented the following FP interventions at Area 25 Health Centre in Lilongwe, Malawi: community sensitizations to promote FP use via Open Days with tribal chiefs and Population Weekends with religious leaders (February 2014), trainings in LARC insertion (February-March 2014), FP mentoring (February 2014–present), and weekly monitoring of FP commodities (March 2014–present). FP data were abstracted from the Health Centre Monthly Family Planning Reports and entered into a database. Descriptive statistics were used to compare the proportion of SARC and LARC methods provided at the health centre one year pre-intervention (February 2013-January 2014) and one year post-intervention (February 2014-January 2015).

**Results:** A total of 14,221 and 17,601 women were given modern contraceptive methods at Area 25 Health Centre during the pre- and post-intervention periods, respectively. During the pre-intervention period, 95.1% of all modern contraceptive users were given SARC and 4.9% were given LARC. During the post-intervention period, 86.9% of all modern contraceptive users were given SARC and 13.1% of women were given LARC. Most of the increase in LARC resulted from increased implant use, which increased from 4.9% pre-intervention to 12.5% post-intervention. IUD utilization increased from 0.0% pre-intervention to 0.6% post-intervention.

**Conclusions:** A package of family planning interventions which focuses on both increasing demand via community sensitization and supply via provider training and mentoring can increase utilization of LARC and decrease reliance on less-effective SARC methods. However, further research should be done to evaluate additional strategies to increase IUD utilization, which remained under 1%.

**P0273**

**IMMEDIATE POSTPARTUM AND POST-ABORTION INSERTION OF INTRAUTERINE DEVICE AMONG TEENAGE PREGNANT WOMEN. AN EXPERIENCE IN A GOVERNMENT TERTIARY HOSPITAL**

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**Objectives:** Immediate insertion of IUD after a normal spontaneous delivery or abortion can decrease the risk of repeat pregnancy among our teenage mothers. We reviewed our experience with IUD insertion after spontaneous abortion or normal spontaneous delivery among our teenage pregnant patients admitted in our institution.

**Method:** Teenage pregnant women admitted between January 2014 to July 2014 for vaginal delivery and curettage for spontaneous abortion were included in this retrospective review. The IUD was inserted immediately after placental delivery or after curettage for abortion. Complications were noted during their follow-up visit.

**Results:** During a 6 month period, a total of 111 teenage pregnant patients had IUD insertion. Fifty-nine (53%) had IUD inserted after normal spontaneous delivery while 52 (47%) who had spontaneous abortion had IUD inserted after curettage. Only 26 (23%) followed-up after 2–6 weeks. There were no spontaneous expulsion of the IUD and no cases with perforation, pelvic infections or heavy uterine bleeding. All of the patients expressed their desire to continue with the IUD.

**Conclusions:** There was a low rate of follow-up visit among teenage patients who had IUD insertion following vaginal delivery or abortion. Immediate IUD insertion is safe and can be offered to our teenage patients who asked for a method of contraception.

**P0274**

**INTEGRATING HUMAN RESOURCES (HR) AND COMMODITY DATA INFORMS EFFECTIVE FAMILY PLANNING (FP) SCALE-UP INVESTMENTS**

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**Objectives:** All Family Planning (FP) services require the right combination of commodities, human resources (HR) and demand in the same place, to enable effective and quality service delivery. Linking data on the availability of skilled HR, commodities and service provision can inform more effective service delivery investments. However, in spite of Nigeria’s commitment to LARC scale-up though training and commodity investments, there has been no systematic effort to track and link this data. The Federal Ministry of Health (FMoH) Nigeria with CHAI’s support developed a dashboard to analyze integrated facility-level commodity and HR data to provide actionable analytics for LARC programming.

**Method:** The FP dashboard emerged from the Nigerian Federal Ministry of Health’s (FMoH) request for tools to better coordinate FP programming, resources and partners. Following FMoH specifications of
functionality and business requirements, a concept note was developed and shared with stakeholders to gain partner buy-in. The dashboard is designed to collect commodity consumption and stock-out data from Nigeria’s National Demographic Health Information System (DHIS). It will then integrate this with partner and state reported human resource training data in order to determine trends, highlight resource mismatches that undermine the investments being made and identify opportunities for interventions.

**Results:** Development phase 1 includes DHIS and HR data entry, integration and analysis. Preliminary applications in Rivers and Zamfara states showed that only 22% and 14% of their respective FP facilities had LARC-trained providers, with only a subset in Rivers actually providing LARC. Examination of the non-LARC providing facilities highlighted capacity, commodity, demand and equipment barriers. These barriers were addressed with comprehensive and refresher courses in LARC provision and demand generation, as well as equipment and commodity resupplies where applicable.

Initial 9-state roll-out will start April 2015 and scale-up nationally in commodity resupplies where applicable.

**Conclusions:** Initial 9-state roll-out will start April 2015 and scale-up nationally in commodity resupplies where applicable.

In LARC provision and demand generation, as well as equipment and barriers were addressed with comprehensive and refresher courses to lighted capacity, commodity, demand and equipment barriers. These providing LARC. Examination of the non-LARC providing facilities highlighted capacity, commodity, demand and equipment barriers. These barriers were addressed with comprehensive and refresher courses in LARC provision and demand generation, as well as equipment and commodity resupplies where applicable.

The web-based platform is open-source and compatible with most standard electronic HMIS, LMIS and HR data systems. It can thus be easily adapted to other program areas.

**P0275**

**UPAKE OF POSTPARTUM IUD IN BANGLADESH: HOW PROGRAM EFFORTS CAN ACCELERATE PERFORMANCE**

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**Objectives:** Government of Bangladesh (GOB) is leading a joint innovative program on Maternal & Neonatal Health Initiative (MNHI) with the WHO, UNICEF and UNFPA to reduce maternal and neonatal mortality and morbidity. Immediate postpartum IUD (PPIUD) was recently integrated with the existing MNHI program to increase access to a range of effective postpartum family planning (PPFP) methods. Hence, the main objective of this paper was to explore the MNHI program initiative efforts and approaches and how it impacted on post-partum IUD uptake and to inform program scale-up for the country.

**Method:** EngenderHealth Bangladesh - an USAID supported family planning implementing organization provided technical assistance to UNFPA to initiate immediate postpartum IUD in 27 facilities in five MNHI supported districts from October 2013 to September 2014. Direct program efforts to initiate PPIUD services involved, training of clinical providers, orientation on PPF and distribution of IEC materials. Other efforts included ensuring availability of drugs and equipment to provide 24/7 delivery, counseling at antenatal visits, well-equipped delivery room, and continuous monitoring and follow up. The information was collected and analyzed from the performance report and client records of the facilities.

**Results:** Immediate postpartum IUD uptake increased from zero at initiation of the program effort to 601 PPIUD insertions [District Hospital (307); and Maternal and Child Welfare Center (294)] within a period of 12 months. PPFP counseling during antenatal care directly contributed to 35% of the birthing women from the two top-most performing facilities accepting immediate PPIUD. Obstetricians involvement in PPFP counseling created additional demand for post-partum IUD, as 60% of clients undergoing caesarian section accepted PPIUD and were offered the method. Nearly 50% of the IUD clients returned for postnatal care and follow up within eight weeks of IUD insertion.

**Conclusions:** The PPIUD acceptance and uptake in the short period of time is encouraging given that the national trend is on the decline. Involving doctors in counseling for PPIUD acceptance and providing the method is crucial in Bangladesh, as the uptake is currently low as it is being provided by paramedics. Promoting and ensuring PPIUD information during antenatal care is key areas in increasing PPIUD uptake. Integration of PPIUD services with maternal and neonatal health contributes to improved access to quality FP services thereby decreasing the unmet need for family planning, and improving maternal and child health.

**P0276**

**A STUDY ON KNOWLEDGE, ATTITUDE AND PRACTICE OF CONTRACEPTION AMONG MEDICAL CAMP IN CHENNAI**

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**Objectives:** Despite the fact that contraceptive usage has increased over a period of time, there exists a knowledge, attitude and practice gap regarding contraception. The reasons for not using any family planning methods are lack of knowledge, education, religious beliefs and fear of side effects.

The objective of this study was to access the knowledge, attitude and practice of contraception among women who attended the Medical camp.

**Method:** A cross sectional study was conducted on 200 women who attended the Medical Camp, Chennai during the month of Feb 2015. Data obtained by using a pre-tested, self administered, semi structured, questionnaire to assess the knowledge, attitude and practice of contraception and the data were analysed.

**Results:** The study consisted of women aged 20–45 years. 98% of the women had good knowledge of contraception, 2% of the women had no knowledge of contraception. Most of them knew about condoms (88%) and contraceptive pills (72%) but knowledge about permanent methods was 90%. 45% of women were currently in use of contraceptions. The most commonly used contraceptives were tubal ligation (25%), IUCD (15%), condoms followed by oral contraceptive pills (OCP). The source of information about sex and contraception was Media (90%) followed by Medical staffs, friends and parents. The main reason for not using any method was the fear of side effects.

**Conclusions:** The study highlights the needs to motivate the women for effective and appropriate use of contraceptives when required and to prevent unwanted pregnancies. The media has played a pivotal role in spreading awareness among women. Hence it can be used as a tool to motivate as well as to adopt contraception.

**P0277**

**PHARMACY PROVISION OF MEDICATIONS FOR MENSTRUAL REGULATION IN BANGLADESH: A NATIONAL SURVEY OF KNOWLEDGE AND PRACTICE**

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**Objectives:** Menstrual regulation (MR) has been legally available in Bangladesh as a surgical procedure since 1979 but barriers to access mean women often turn to unsafe methods. A 2011 survey in three regions revealed that Bangladeshi pharmacy workers provide medications, including misoprostol, for MR over the counter but service quality is poor, potentially putting women at risk of harm. A combined misoprostol and mifepristone regimen has since been approved by the Government for MR. The study’s objective was to conduct a national cross-sectional survey to evaluate Bangladeshi pharmacy workers’ knowledge and provision of medications for MR.
Method: A cross-sectional survey was conducted in 2013 among pharmacy workers in 755 pharmacies across Bangladesh. A random sample of pharmacies was chosen from a list of outlets supplied by a leading pharmaceutical company, selecting equal numbers from each geographical division. One worker from each pharmacy was selected to participate. Trained fieldworkers conducted face-to-face interviews using a structured questionnaire which asked about the pharmacy worker's knowledge and provision of MR medications. The data were analysed using cross-tabulations, chi squared tests and multivariable regression.

Results: Most participants were male pharmacy owners and 99% experienced a demand for MR services. While almost all sold misoprostol for MR, only 41% had heard of and 38% sold the misoprostol/mifepristone combination. Of those selling the combined regimen, 83% had experienced clients who couldn't afford it. Although 65% of workers had received training on MR medications, only 16% felt they knew enough. Overall, 23% knew the effective misoprostol regimen for MR, 18% knew the maximum gestation and 52% knew of two complications. Almost all had an emergency referral network, and 89% offered family planning services to MR clients.

Conclusions: Misoprostol remains the most commonly prescribed MR treatment in Bangladeshi pharmacies. Barriers to misoprostol/mifepristone combination uptake are affordability, availability and pharmacy worker awareness. There are large gaps in pharmacy worker knowledge of the most effective regimen for MR with misoprostol only. Knowledge of side effects and complications of misoprostol when used for MR are also poor and most pharmacy workers wanted more information. The widespread availability of MR medications without adequate provider knowledge is a risk for MR clients. Efforts to improve practice among pharmacies should be scaled up and barriers to safe, legal services explored and addressed.

P0279
KNOWLEDGE AND ATTITUDE TOWARDS LONG ACTING REVERSIBLE CONTRACEPTION – AN OBSERVATIONAL STUDY AMONGST WOMEN IN JAIPUR, INDIA
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Objectives: The unprecedented population growth in the last century has been the major global concern with contraception being the single most important intervention to reduce the burden of unwanted pregnancy. Jaipur represents socio-cultural setting of North India, where the fertility rates are high and contraception rates are reported to be low. Knowledge, access to or promotion of contraception is limited and early marriages, early onset of sexual activity and pregnancy in young couples are matter of concern. This study was undertaken to explore the knowledge and attitude towards long acting reversible contraceptives among women in Jaipur, India.

Method: It is an observation study on 222 women undertaken using a random sampling technique. Around 400 questionnaires were distributed by student volunteers and responses were obtained from 222. Data analysis was done using SPSS package for analysis, version 16.

Results: Of the respondents 63% were married and 60% used some form of contraception. Awareness of LARC was reported in 43%, Source of information for was doctor, friends and media. IUDs were the most recognised form of LARC with 21% considering them reliable. 28% considered them reversible and 43% of respondents wanted more information about LARC.

Conclusions: Even here there are many misconceptions. Respondents expressed a desire for more information. This suggests a great scope for intensive information, education and communication campaigns addressing the issues in safety and reliability of this method. Awareness, availability and use of LARC methods will offer women additional options and allow them to exercise more reproductive choice and autonomy.
P0280

RELATIONSHIP QUALITY ASSESSMENT BY WOMEN AND MODERN CONTRACEPTIVE USE IN A PERI-URBAN SETTING IN NIGERIA: FINDINGS FROM THE FAMILY HEALTH AND WEALTH SURVEY (FHWS)

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Objectives: This study assessed the association between key construct of marital relationship quality scale (RQS) and uptake of modern contraception (MC) by married women in Nigeria.

Method: The FHWS was an open-cohort study conducted in 2010 among 497 randomly selected couples from households in Moniya, Akinyele Local Government Area, Nigeria. The 5 RQS scales used were commitment, trust, constructive and destructive communication and relationship satisfaction. Descriptive, bivariate and multivariable analyses were performed to determine associated factors for MC uptake at 95% confidence level.

Results: 35% of the women reported MC use. Higher commitment scores was associated with MC use (39.8±5.2) compared to non use (38.6±6.1); (p=0.032). Women married for 5–9 years (OR=2.46, 95% CI: 1.46–4.14) and 10 years and above (OR=2.46, 95% CI: 1.45–4.17) were twice more likely to use a modern contraceptive method to those married for less than 5 years. Women with the lowest wealth quintile were twice less likely to use MC compared to the highest wealth quintile (OR=0.50, 95% CI: 0.26–0.93).

Conclusions: Some RQS measures appear to influence MC uptake among Nigerian family. More research is required to further understand this concept which may be beneficial in the development of family planning programmes.

P0281

POSTPARTUM UTERINE AND CECAL PERFORATION BY AN INTRA-UTERINE DEVICE: A CASE REPORT

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Objectives: As long acting reversible contraceptions become more popular in the United States, intra-uterine devices (IUD) are being increasingly used in postpartum and lactating women. The levonorgestrel-releasing IUD has a risk of uterine perforation of one in one thousand, which may increase to up to one in one hundred in lactating women.

Method: A 28 year-old lactating woman (gravida 1 para 1001) presented with an acute abdomen five days after a levonorgestrel-releasing IUD was inserted, four months postpartum. She underwent a laparoscopic partial cecectomy and appendectomy for perforation by the IUD whose strings were still visible in the cervix.

Results: The patient has subsequently conceived spontaneously. She went on to have an uncomplicated pregnancy and delivery. She had another levonorgestrel-releasing IUD, inserted under ultrasound guidance, six months postpartum.

Conclusions: Despite growing popularity of the IUD, care must be taken in postpartum lactating women. Postponing insertion of the IUD and use of ultrasound may reduce the risk of uterine perforation.
instructions for use was developed and administered to 1036 women enrolled in a 13-cycle Phase 3 trial. Method continuation was documented from the trial database. Stepwise logistic regression (LR) analysis was conducted and odds ratios calculated to assess associations of satisfaction with questions from the 4 domains. Fisher’s exact test was used to determine the association of satisfaction with outcome measures.

**Results:** A final acceptability model was developed based on the following determinants of CVR satisfaction: ease of use, side effects, expulsions/feeling the CVR, and sexual activity including physical effects during intercourse. Satisfaction was high (89%) and related to higher method adherence [OR 2.6 (1.3, 5.2)] and continuation [OR5.5 (3.5, 8.4)]. According to the LR analysis, attributes of CVR use representing items from the 4 domains - finding it easy to remove, not complaining of side effects, not feeling the CVR while wearing it, and experiencing no change or an increase in sexual pleasure and/or frequency were associated with higher odds of satisfaction.

**Conclusions:** Hypothesized domains of CVR use were related to satisfaction, which was associated with adherence and continuation. Results provide a scientific basis for introduction and future research.

**P0284**

A COMPARATIVE STUDY ON THE PERCEPTION AND PRACTICE OF CONTRACEPTIVES AMONG MALES AND FEMALES IN A TERTIARY INSTITUTION IN IBADAN, NIGERIA

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**Objectives:** To determine the perception and practice of contraception among males and females in a tertiary institution and also to provide baseline data which could help in developing appropriate evidence-based strategies to promote the use of contraceptives.

**Method:** This was a cross-sectional descriptive study among students of the Polytechnic, Ibadan, Nigeria. The multi-staged sampling technique was adopted using the classrooms to ensure good representation since the institution was not fully residential. The survey instrument was a structured, self-administered two-paged questionnaire designed before pretesting. Score for knowledge were based on 15 questions with scores <8 considered as poor knowledge. Ethical approval was obtained from the Department of Obstetrics and Gynaecology, University of Ibadan and authorities of the Polytechnic, Ibadan. The results were analyzed using statistical package for social sciences (SPSS) version 16.

**Results:** Three hundred and seventy undergraduates participated in this study. The mean age of respondents was 23.47±3.36yrs (Males) and 21.6±±2.70yrs (Females). Only 28.9% and 33.3% of males and females had good knowledge on family planning methods. The main sources of information for males and females were from the media and parents respectively. Males were more comfortable with the use of contraceptives. The commonest (56.4%) contraceptives used were barrier methods (male condoms). Prevention of pregnancy was the main reason for usage by females (77.3%) compared to prevention of Sexually transmitted disease by the males (76.5%).

**Conclusions:** This study revealed that there is still poor knowledge and perceptions of contraception among undergraduates in Nigeria. It also shows that barrier methods are commonly used and this offers the benefit of dual protection. There is the need to additional emphasized through public enlightenment and health education the benefit of emergency contraception which had low usage in this study, if the menace of unwanted pregnancies and complications of unsafe abortion is to be eradicated.

**P0285**

ORAL CONTRACEPTIVE USE AMONG NON-PREGNANT CANADIAN WOMEN AGED 15 TO 49 YEARS OLD: RESULTS FROM THE 2007 TO 2009 AND 2009 TO 2011 CANADIAN HEALTH MEASURES SURVEY

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**Objectives:** The Canadian Health Measures Survey (CHMS) is an ongoing survey that collects detailed health and demographic information to produce nationally representative estimates of key health indicators. Using results from the CHMS, our objectives were to: (1) Estimate the prevalence of oral contraceptive (OC) use by non-pregnant Canadian women; (2) Profile OC users by socio-demographic and cardiovascular risk; and (3) Determine the types of OCs being used by estrogen dose and progestin type.

**Method:** Data from Statistics Canada's 2007–2009 and 2009–2011 CHMS were used to estimate OC use overall, by selected socio-demographic and cardiovascular risk factors, and by estrogen dose and progestin type. Logistic regression was used to examine associations between OC use and sociodemographic variables.

**Results:** Over 1.3 million non-pregnant women aged 15 to 49 had used OCs in the previous month. OC users were significantly younger than non-users (26.0 vs 34.6, p<0.05). OC users were significantly more likely to be sexually active, Canadian-born, nulliparous, have lower BMIs, and fewer cardiovascular risk factors. Approximately 99% of OC users took OC formulations containing estrogen and progestin. The most common progestins were levonorgestrel and norgestimate. Two-thirds used OCs containing >30 mcg or more of estrogen. Younger women aged 15–24 were more likely to use lower estrogen dose formulations (<30 mcg EE) than women aged 35–49.

**Conclusions:** This national, population-based study is the first to provide detailed sociodemographic and cardiovascular risk information about OC users and the type of OCs being used in Canada. Oral contraceptives are used by a significant proportion of reproductive aged Canadian women, particularly younger women, and the majority of OC users use formulations containing 30 mcg or more of estrogen. Oral contraceptive use varies by sociodemographic and cardiovascular risk factors, however the strong association of OC use with age may account for some of these observations.
moved on request at the end of follow up. 391 (91.7%) IUCDs in situ confirmed clinically and 35 (8.3%) by ultrasound. Expulsion rate 2.1%. Satisfaction rate 93.4% at the end of 6 months. No case of misplaced IUCD, PID or uterine perforation was reported.

Conclusions: Trans-caesarean IUCD is an effective method of contraception in developing countries like Pakistan.

P0287
AN EXPERIENCE WITH MIRENA IN PAKISTANI WOMEN – MENORRHAGIA/CONTRACEPTION
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Background: Mirena is an intra uterine system containing 52 mgs of Levonorgestrel on the sleeve of a T shaped intra uterine device. 20μg of levonorgestrel is released per day over a period of 5 years.

Objectives: To evaluate the efficacy and side effects in Pakistani woman associated with Mirena insertion for various indications.

Patients and methods: The period of study was from June 2003 to December 2013. Mirena was inserted in 300 patients over this period. In 176 patients, it was inserted for treatment of dysfunctional uterine bleeding and in 68 patients as a contraceptive. The indication in 32 patients was contraception and menorrhagia while menorrhagia associated with fibroids was the indication in 12 patients.

Results: Irregular spotting for 2 months was seen in 188 (62.6%) patients; 32 (10.6%) patients had irregular vaginal spotting for 3 months; 52 (17.3%) patients had irregular bleeding for 4 months. Expulsion was reported in 8 (2.6%) patients and 20 (6.6%) patients requested for removal of the device.

Conclusions: In patients who require hysterectomy for dysfunctional uterine bleeding, Mirena is an alternate option with manageable and acceptable side effects.

Conventional Gynecological Surgery

P0288
MYOMA GIANT
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Objectives: Uterine fibroids (MU) are monoclonal benign neoplasms, of slow growth, which develop in various locations uterus. The most common tumors of the female reproductive system are considered. Although rarely associated with malignancy or mortality, the MU can have a significant impact on the quality of life of women of reproductive age. Depending on its anatomical position, number and size, can cause abnormal uterine bleeding, pelvic pain, increased abdominal size, dyspareunia and urinary incontinence. MU may still have adverse impact on the reproductive function, associating with infertility and adverse pregnancy outcomes, such as spontaneous abortions, fetal abnormalities, premature births and increase in Caesarean section indication. In Brazil, studies show MU occurrences in 23% of white women and 42% of black.

Method: PPCM, 42 years old, G2P1A0, black, sought medical help with pain, bloating and metrorrhagia, these symptoms that started eight months. On physical examination, increased abdominal size, compatible with the pregnancy term. Was requested ultrasound, which revealed the presence of mixed expansive process occupying the entire abdominal cavity. For diagnostic was performed nuclear magnetic resonance of the pelvis revealed solid extensive injury occupying the entire abdominal cavity. For diagnostic was performed nuclear magnetic resonance of the pelvis revealed solid extensive injury occupying the entire abdominal cavity. The magnetic resonance of the pelvis revealed solid extensive injury occupying the entire abdominal cavity. The magnetic resonance of the pelvis revealed solid extensive injury occupying the entire abdominal cavity. The magnetic resonance of the pelvis revealed solid extensive injury occupying the entire abdominal cavity.

Conclusions: Determine indications and outcome of hysterectomy at Aminu Kano Teaching Hospital, Kano.
Method: Five years Retrospective Review of hysterectomies done in Aminu Kano Hospital.

Results: Hysterectomy rate 5.1%, Total Abdominal Hysterectomy constituted 78.1%, complication mostly pyrexia.

Conclusions: Uterine fibroid was commonest indication and post-operative pyrexia the commonest complication.

P0291

GYNECOLOGIC SURGERY OUTCOMES AT AN URBAN HOSPITAL IN SENEGAL

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Objectives: The goals of the study were to identify the volume and types of gynecologic surgeries performed at Military Hospital of Ouakam, (HMO) over a 6 month period and to identify the incidence of and factors contributing to post-operative complications.

Method: This was a retrospective cohort study of women who underwent gynaecological surgery at HMO from June 1st to December 31st, 2012. Data analysis was performed with Stata. P-values are based on two-sided T-tests for continuous variables and Fisher exact tests for binary variables and chi-square testing for other categorical variables.

Results: 120 women underwent gynecologic surgery at HMO during the study period. The median age was 38.7 years and 58% of women were nulliparous. The most common indication for surgery was symptomatic uterine fibroids. The most common surgery performed was abdominal myomectomy, which accounted for 72 (60%) of the procedures performed. This was followed by adnexal surgery which accounted for 20 (24%) of the procedures. The post-operative complications recorded were one wound infection, one bowel injury and one death within thirty days after surgery. 24 (20.2%) of the patients required transfusions either intra-operatively or post-operatively.

Conclusions: The most common indication for gynecologic surgery at HMO was symptomatic fibroids. Post-operative complications were too rare to identify contributing factors. However, about 20% of patients received transfusions. This large number of transfusions was due to a combination of surgical technique as well as the presence of large fibroid uteri.

P0292

PREVALENCE OF ECTOPIC PREGNANCY IN OROTTA MATERNITY NATIONAL REFERRAL HOSPITAL FROM JANUARY 1, 2009 TO DECEMBER 31, 2011

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Objectives: To assess the prevalence of ectopic pregnancy in Orotta Maternity Hospital to assess some of the risk factors that leads to ectopic pregnancy.

Design: A retrospective descriptive cross-sectional study.

Setting: All ectopic pregnant women who were admitted in the Orotta Maternity Hospital from J.

Methods: Patient identification performed through review of recorded log book and patient card describing each patient admitted to Gynecology ward. Based on this, Medical records were reviewed and pertinent maternal information was recorded including obstetrics, medical, surgical, social history and demographic information. Statistical analysis was performed using Stat-9.

Main outcome measures: Prevalence of ectopic, risk factors for ectopic, and main surgical intervention in the hospital.

Results: A study of 49 cases ectopic pregnancy managed over three years period in Orotta National Maternity Referral Hospital is reported. The total number of deliveries in our hospital in the study duration was 30,000. The prevalence of ectopic per 100 deliveries was 1.6. From this study the mean age, gravidity and parity were 30, 3 and 2 respectively. The mean gestation age for ectopic pregnancy was 7 weeks. More than 55% came with ruptured ectopic and needing emergency blood transfusion. It is one of the commonest gynecological emergency in the hospital. The usual surgical treatment in our unit is total salpingectomy.

Conclusions: Even though ectopic pregnancy is not common in our hospital like other African countries, it should be considered a relevant public health indicator in developing countries, providing an overall picture of the capacity of a health system to deal with the diagnosis and treatment of emergency situations, especially in the field of obstetrics and gynecology.

P0293

COMPARISON OF HYSTERECTOMY PROCEDURES

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Objectives: To compare the outcome measures which including operating time, blood loss, rate of complications, consumption of analgesics, and length of hospital stay of total laparoscopic hysterectomy (TLH), laparoscopic-assisted vaginal hysterectomy (LAVH), vaginal hysterectomy (VH) and total abdominal hysterectomy (TAH).

Method: A prospective, randomized study was performed at Gynecologic Surgery Department of National Cancer Center of Mongolia between March 2013 and January 2014. A total of 120 women indicated to undergo hysterectomy for cervix cancer for FIGO stage 0–1, uterine myoma, uterine cancer were randomly assigned to four different groups (30 VH, 30 LAVH, 30 TLH and 30 TAH).

Results: Blood loss were TLH:119±54.7mL, LAVH: 127.5±52.7 mL, VH: 145±57.8 mL and TAH: 210±77.4mL (P=0.007) and operative time were TLH 115±16.6 minutes LAVH: 112.5±18.5 minutes; VH: 51.6±16.9 minutes; TAH: 69±18.2 (P=0.001). The average weight of uterine were from 95.1±27.6mg in the VH group, to 181.2±97 in the LAVH group through to 122.3±64 for the TAH group. For postoperative pain: VH were 5.5±0.7 days of analgesic request TLH: 3.0±0.8 days, LAVH: 3.0±0.7 days, VH: 3.0±0.86 days (P<0.001). VH was associated with a reduced hospital stay TLH: 3.3±0.7, LAVH: 3.3±0.6 days; VH: 3.7±0.6 days; TAH: 6.5±0.7 (P<0.001).

Conclusions: However TLH, LAVH and VH seem to be operative time, blood loss and hospital stay, VH were technical problem salpingooophorettom. TLH and the LAVH has advantages over the TAH in that in the former there is less intraoperative blood loss, less postoperative analgesic requirement, and a shorter duration of postoperative hospital stays.

P0294

THE PAIN RELIEF EFFECTS OF ON-Q PUMP COMPARED TO INTRAVENOUS PATIENT-CONTROLLED ANALGESIA PUMP AFTER TOTAL ABDOMINAL HYSTERECTOMY

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Objectives: For good pain relief after gynecology surgery, the use of the ON-Q pump (surgical incision site pain relief system) was increased. In many studies, ON-Q pain management system is a more effective than intravenous patient-controlled analgesia pump (IV PCA) for acute postoperative surgical site pain relief. The aim of this study was to compare the effect of pain relief to two different pain control system, the ON-Q pump and an IV PCA, after total abdominal hysterectomy in myoma, adenomyosis patients.

Method: We reviewed the medical records of 188 patients who had total abdominal hysterectomy between March 2014 to December 2014. One group received a 48-hour continuous wound perfusion into the suprapitoneal layer of the abdominal incision through the ON-Q pump (n=48). The other group received IV PCA (fentanyl cit-
rate 20mg/mL/kg + ketorolac tromethamine 180mg + ramosetron 0.3mg/2ml + normal saline, n=140). Postoperative pain was assessed immediately, day of operation night, 1st day post operation morning, 1st day post operation afternoon, 1st day post operation night, 2nd day post operation morning, 2nd day post operation afternoon, 2nd day post operation night, 3rd day post operation morning using the numeric rating scale.

Results: Comparing ON-Q to IV PCA, immediately after surgery (2.9 vs 3.1, p=0.227), day of operation night (3.2 vs 3.1, p=0.598), 1st day post operation morning (3.2 vs 2.8, p=0.020), 1st day post operation afternoon (2.7 vs 2.5, p=0.188), 1st day post operation night (2.5 vs 2.3, p=0.092), 2nd day post operation morning (2.6 vs 2.3, p=0.131), 2nd day post operation afternoon (2.1 vs 2.0, p=0.393), 2nd day post operation night (1.9 vs 1.8, p=0.612), 3rd day post operation morning (1.7 vs 1.5, p=0.152). But, comparing nausea between two groups, IV PCA group was 32 of the 148 patients (21.6%), ON-Q group was 2 of the 40 patients (5%).

Conclusions: This study revealed that there was no significant discrepancy between the two groups using difference pain relief system except in the case of 1st day morning. However, nausea after using pain relief system were lower in the ON-Q group than the IV PCA group.

P0295 SURGICAL TECHNIQUE FOR EMERGENCY OBSTETRICS IN POOR RESOURCE SET UP

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Objectives: Substandard management in near miss morbidity cases in obstetrics pushes the patient into death or long time sufferings. Rupture uterus internal hemorrhage, etc. management with rapid surgical technique are important to save life. My study showed how simple procedures having inadequate logistic supports help for immediate management.

Method: During the period 2001 to 2006 working as resident surgeon in Dhaka medical college, Bangladesh largest tertiary center facing so critical obstetric patients in late night or late evening when seniors are practically not available. On the basis of patient findings, pictorial views and the surgery done are studied methodically taking patient consent.

Methods: Review experienced based study. Medline search done. Systemic observation in selected patient having badly damaged uterus following stormy labor was evaluated by doing safe immediate surgical technique.

Results: Different varieties of rupture uterus are shown. Among 46 cases 28 cases are described. Type of incision to open the abdomen way of identification of torn and badly damaged structures involving bladder, broad ligament, round ligament, vaginal wall are described. Two uterine clamp forceps, two sponge holding forceps and the hands how help are shown. Decreasing incidence of infection, shortening operation time and the better outcome.

Conclusions: Immediate rapid surgical techniques using minimum instruments and our hands with fingers can safe the life of moribund obstetric patients in poor resource set up.

P0296 ANTERIOR COLPOSPUSION WITH TRANSOBTURATOR TAPE FIXATION FOR TREATMENT OF CITOCOELE

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Objectives: To present the first 10 cases of patients treated with a new surgical technique for the treatment of anterior colpocoele.

Method: The population consists of carriers hysterectomy patients with pelvic organs prolapse staging point Aa + 1 or greater, and Ba 0 or greater. The technique involves repairing the vesicovaginal fascia defect detected using their own tissue, which is fixed at its upper sector to neoestructura generated with the passage to a prolene tape via posterior transobturator.

Results: There were no intraoperative complications. There was 1 hematoma at the level of the vaginal dome detected in the immediate postoperative, and 1 case of vesicovaginal space hematoma over a week the procedure. There was no infectious complications. No urinary retention and voiding difficulty arose. The average hospital stay was 48 hours.

Patients were assessed at the first and third months of surgery. No patient had complications with prolene mesh. All patients had at genital examination, the Aa and Ba points in negative levels.

Conclusions: The surgical technique is safe, respects the functional anatomy and is reproducible for the trained and informed of the transobturator approach gynecologist.

This procedure provides to the vesicovaginal fascia a foothold for those patients who do not have paracervical ring.

P0297 TOTAL HYSTERECTOMY: PROFILE OF PATIENTS IN A CAPITAL IN THE NORTHERN BRAZILIAN AMAZON

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Objectives: This study aims to identify and analyze the profile of patients undergoing total hysterectomy (TH) in the Hospital Materno-Infantil Nossa Senhora de Nazaré (HMINSN) in Boa Vista - Roraima, capital in the extreme north of the Brazilian Amazon.

Method: This is a retrospective, cross study, analyzing the medical records of patients who underwent hysterectomy between January and July 2012 in Hospital Materno-Infantil Nossa Senhora de Nazaré, located in the capital of Roraima, Boa Vista. The following variables were evaluated: age, number of pregnancies, number of births, delivery route, number of abortions, surgical indication and the type of hysterectomy performed. Statistical analysis was performed using Epi Info 7, using the chi-square test for proportion of qualitative variables with α<0.05 and the odds ratio (OR). The study was approved by the Ethics Committee.

Results: Were performed 104 hysterectomy procedures. From the total, 91.42% were TAH and 8.57% TVH. Considering the TH were performed using Epi Info 7, using the chi-square test for proportion of qualitative variables with α<0.05 and the odds ratio (OR). The study was approved by the Ethics Committee.

Conclusions: It is observed that the profile of patients undergoing hysterectomy in the Hospital Materno-Infantil Nossa Senhora de Nazaré is: patient undergoing abdominal hysterectomy, between 41 and 50 years, mean 46.52; range 24–84. Regarding number of pregnancies, 39.04% had 4 or more. About deliveries: 42.85% only had vaginal and 11.42% by both routes. 38.09% had not abortions. There were not data about the numbers of: pregnancies 25.71%, births 27.61%, abortions 26.66% of the records. Regarding the diagnosis that led to the surgical indication, 76.19% were due to suspicion of myomas and 23.80% were by other causes as adenomyosis, atypical cells, among others.

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P0298
CHOOSING THE ROUTES OF HYSTERECTOMY FOR BENIGN DISEASE: CHOICE IS NO MORE OF PHYSICIAN
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Objectives: 1. To determine the rate of abdominal hysterectomy (AH), vaginal hysterectomy (VH) and laparoscopic assisted vaginal hysterectomy (LAVH). 2. To evaluate the benign indications of hysterectomy.

Method: This was a retrospective cross-sectional study conducted in a district private hospital of Comilla, Bangladesh. 147 consecutive hysterectomized patients performed for benign indication during July 2014 to December 2014 were recruited for the study. Demographic characteristics of study population, the rates of different types of hysterectomy with their indications were determined.

Results: The rate of AH, VH and LAVH were 64%, 33% and 3% respectively. Among VH, 54% was due to utero-vaginal prolapse and 46% was due to non-descent uterine diseases. Regarding indications abnormal uterine bleeding was 24%, utero-vaginal prolapse was 18% and uterine leiomyoma was 16%.

Conclusions: Evidence suggests that VH should be the approach of choice whenever feasible and laparoscopic hysterectomy is an alternative to abdominal hysterectomy for those in whom a VH is not feasible. Gynecologist should respect the practice guidelines to determine the route of hysterectomy. Training on different routes of hysterectomy should be implemented strictly during residency training.

P0299
EPIDEMIOLOGICAL PROFILE AND POSTOPERATIVE COMPLICATIONS OF WOMEN UNDERGOING GYNECOLOGICAL SURGERIES IN A REFERENCE CENTER IN THE BRAZILIAN AMAZON
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Objectives: To evaluate the epidemiological profile and postoperative complications of patients undergoing gynecological surgery in a public tertiary Hospital in the extreme border of Legal Amazon in Roraima, Brazil.

Method: A retrospective survey was conducted by analyzing the medical records of 518 patients undergoing gynecological surgeries from January to June, 2012. The three main surgeries performed during that period were included (n=200): hysterectomy, colpoperineo-plasty and suburethral sling surgery. We excluded 236 cases of tubal sterilization and 25 cases with unavailable medical records.

Results: The mean age was 47.6 years, most patients were from the capital (77.0%) and housewives (26.3%). The majority had basic education (36.6%), steady partners (47.4%), and a history of three or more births (86.6%), with previous vaginal deliveries in 50.2% and 21.0% of previous cesarean sections. The preoperative diagnoses were: uterine fibroids (46.3%), urinary incontinence (27.4%) and genital prolapse (17.7%). Three cases (1.7%) of high-grade cervical intraepithelial neoplasia were found. The most common surgery was total hysterectomy (19.8%), of which 15.5% were through vaginal access. The most common complication was wound infection (2.2%).

Conclusions: We found that women who underwent gynecological surgeries in the public reference center of Roraima are young, multiparous, with low education and from the capital. This is the first analysis of the features of the gynecological surgeries performed in the Brazilian Amazon Northern Border.

P0300
MIFWA – A PRIVATE INITIATIVE IN ADDRESSING GENITAL PROLAPSE IN A DEVELOPING COUNTRY
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Objectives: To summarize and discuss the presenting factor, etiology and sexual dysfunction, duration of suffering associated with genital prolapse. Surgical techniques use in the management and its outcome was observed.

Method: A retrospective analysis was conducted in MIFWA – A private charitable hospital, by using hospital records during the period of December 20 12 to December 2014 and the patients were followed up over telephone as they were residing in distant location from this hospitals. Woman having any symptomatic genital prolapse with cystocele and rectocele, enterocele, vault prolapse were included in the study. A total of 250 patients participated in the study. This patients were referred from rural areas by the health workers, NGO and other specialist and also by the previous patients.

Results: Total 250 (n=250) were enrolled in the study among which 10 (4%) managed conservatively, 240 (96%) were operated either for sever degree prolapse with urinary complaints. Among which 40 (16%) had Mac call caldoplasty for eversion of vaginal vault. Socio demographic study showed most of the population were between the age of 41–50 years (36%), most were multiparous 4–10 children. 70% population were illiterate. 85% of the patient had to do heavy work in post partum period. 74% of the population had sexual dysfunction in severe degree genital prolapse even with abstinence of sex mostly in older age group.

Conclusions: The finding confirm high prevalence of genital prolapse in this region. The majority of the women were uneducated, high rate of poverty, multiparous, has high rate of early resumption to heavy work in peurparium. Success rate of treatment in this 25 bedded charitable hospital was almost 100% long term follow up showed good quality of life among the treated patients.

P0301
FEASIBILITY OF PESSARY USE IN RURAL NEPAL: ONE YEAR OUTCOMES
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Objectives: To evaluate the feasibility of using pessaries in the rural Nepali district of Ramechhap. Feasibility was defined as: acceptability to women, continuation rates and complications at one year.

Method: The study is a prospective cohort study carried out in four rural Village Development Committees (VDC) in the Ramechhap District of Nepal. A health education program with a focus on POP was delivered in each VDC in January 2013 followed by a free health camp 2 weeks later. All women fitted with a pessary were to follow up at the health post every 3 months. At one year, the health team repeated the program and with a focus on all women fitted with a pessary. Descriptive analysis was used. Logistic regression was used to look for associations.

Results: 411 women attended the initial health camp, of these 140 presented with symptomatic POP. 134 women were successfully fitted. At one year, 130 (97%) women attended follow up. 72 women (55%) were still wearing the pessary. 21 (36%) women who were not wearing the pessary wanted to have a pessary refitted. Menopausal status was a predictor of continued use: OR 3.12 (CI: 1.45–6.72), p=0.004 as was the VDC.
There were 6 cases of bacterial vaginosis. Eighteen women had vaginal erosions. All women who had an erosion were menopausal. Increasing pessary size was associated with risk of erosion ($R^2=0.097$, $p=0.01$).

**Conclusions:** Pessaries are an acceptable and feasible option for women with symptomatic prolapse who live in the rural Ramechhap district of Nepal. Access to pessaries for refitting and vaginal estrogen to decrease erosion rates in postmenopausal women is essential for ongoing success.

**P0302**

**PREVALENCE AND RISK FACTORS OF HYDRONEPHROSIS IN WOMEN WITH PELVIC ORGAN PROLAPSE – A PROSPECTIVE COHORT STUDY**

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**Objectives:** To study the prevalence and risk factors of hydrenephrosis in women with pelvic organ prolapse.

**Method:** This is a prospective cohort study done a tertiary care teaching hospital from January 2012 to March 2014. A cohort of 219 women with pelvic organ prolapse were included. A written consent and a complete history including the associated medical co-morbidities were obtained. Prolapse was staged using the standard pelvic organ prolapse quantification (POP-Q) system. The study was approved by the IRB and Ethics committee.

Preoperative trans abdominal ultrasound was performed to grade the hydrenephrosis. All patients underwent Vaginal hysterectomy with pelvic floor repair. Patients with hydrenephrosis were followed up postoperatively to assess for resolution of hydrenephrosis.

**Results:** 219 patients were recruited. The prevalence of Hydrenephrosis 6.8%. 75% had stage II & III pelvic organ prolapse. 45% were between 50–59 years. 99.5% were multiparous. 18% diabetic and 17% hypertensive. Duration of prolapse was less than 5 years in 125 cases and more than 5 years in 20. Patients with prolapse greater than 5 years duration had 8.4 (95% CI, 1.04–64.04) times significantly higher risk of developing hydrenephrosis compared to those with less than 2 years ($p=0.04$). Associated diabetes increased chance of hydronephrosis (95% CI: 0.95–14.53) $p=0.06$. Hydrenephrosis resolved 3 month after surgery in 12 cases.

**Conclusions:** Prevalence of hydrenephrosis with pelvic organ prolapse was 6.8%. Majority of hydrenephrosis resolves completely after surgery. Duration of prolapse of more than 5 years and diabetes were independent risk factors for hydrenephrosis. Age, stage of prolapse and parity did not show any co relation.

Patients with prolapse with diabetes should undergo ultra sound to diagnose a correctable cause of renal failure.

**Gynecological Care for the Older Woman**

**P0303**

**VASOMOTOR SYMPTOMS IN OLDER AUSTRALIAN WOMEN: A CROSS-SECTIONAL POPULATION-BASED STUDY**

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**Objectives:** Normative data for the persistence of menopausal symptoms in older women are lacking. This study aimed to determine current prevalence and severity of vasomotor and sexual symptoms in community-dwelling older women and to explore factors associated with bothersome vasomotor symptoms (VMS).

**Method:** A population-based survey among 1548 community-dwelling Australian women aged 65 to 79 years. A questionnaire completed between April and mid-August 2014 assessed socio-demographic and health related factors. The Menopause Quality Of Life (MenQOL) questionnaire was used to determine the presence and self-rated severity of VMS (hot flashes, night sweats or sweating) and sexual symptoms (intimacy, desire and vaginal dryness).

**Results:** All three items of the vasomotor and the sexual MenQOL domains were completed by 1532 and 1361 of the study participants, respectively. Among 1426 women not using systemic hormones, at least one VMS was reported by 32.8%. The overall prevalence of VMS rated as moderate-to-severe was 3.4%. Factors significantly associated with VMS were obesity (OR=1.44, 95% CI: 1.07–1.93), being a carer for another person (OR=2.54, 95% CI:1.33–4.84) and bilateral oophorectomy (OR=2.41, 95% CI: 1.25–4.61).

Sexual symptoms were highly prevalent, with one in three partnered women reporting symptomatic vaginal dryness during intercourse. Sexual symptoms were significantly higher among currently partnered women compared to non-partnered women ($p<0.001$).

**Conclusions:** Our findings suggest that VMS and sexual symptoms persist in women into older age and for some women, the symptoms are at least moderately bothersome.

**P0304**

**PSYCHOSOMATIC ASPECTS OF OSTEOPOROSIS IN KOREAN POSTMENOPAUSAL WOMEN**

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**Objectives:** To examine the health status in Korean postmenopausal women with low bone mass using quality of life questionnaire.

**Method:** Preliminary cross sectional study to examine health status using Quallefo–41 in 20 Korean postmenopausal women with low bone mineral density, with or without prevalent vertebral fractures, respectively.

**Results:** Korean postmenopausal women with vertebral fracture had lower scores in health domains such as pain, physical function, and general health than those without vertebral fracture.

**Conclusions:** Korean postmenopausal women with vertebral fracture had lower health-related quality of life compared with women without vertebral fractures for all domains and total scores, except mental function.

**P0305**

**EFFECT OF ISOLATED VITAMIN D SUPPLEMENTATION ON THE RATE OF FALLS AND POSTURAL BALANCE IN FALLERS POSTMENOPAUSAL WOMEN: A RANDOMIZED, DOUBLE-BLIND, PLACEBO-CONTROLLED TRIAL**

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**Objectives:** To evaluate the effect of isolated vitamin D supplementation (VITD) on risk of falls and postural balance in postmenopausal women with a history of falls.

**Method:** In this double-blind, placebo-controlled trial, 160 postmenopausal women were randomized into two groups: VITDgroup, vitamin D3 supplementation 1000IU/day/orally ($n=80$) or placebo group ($n=80$). Women with amenorrhea ≥12 months and age 50–65 years, with a history of falls (previous 12 months) were included. Those with neurological or musculoskeletal disorders, vestibulopathies, drug use that could affect balance and osteopenia/osteoporosis were excluded. The intervention time was 9months.

Postural balance was assessed by stabilometry (computerized force platform) and an investigation into the occurrence/recurrence of falls.
by interviews. The plasma concentrations of 25-hydroxyvitamin D [25(OH)D] were measured by HPLC. Statistical analysis was by intention-to-treat, using ANOVA, Tukey-test, chi-square and logistic regression.

Results: After nine months average values of 25(OH)D increased from 15.0±7.5 ng/ml to 27.5±10.4 ng/ml (+45.4%) in VITD group, and decreased 16.9±6.7 ng/ml to 13.8±6.0 ng/ml (−18.5%) in placebo group (p<0.001). The occurrence of falls was higher in the placebo group (+46.3%) with an adjusted risk of 1.95 (95%CI 1.23–3.08) times higher for recurrent falls compared to VITD group (p<0.001). There was reduction in body sway by stabilometry, with lower amplitude of anteroposterior (−35.5%) and laterolateral (−37.0%) oscillation, only in the Vit D group (p<0.001).

Conclusions: In fallers postmenopausal women, isolated vitamin D supplementation for 9 months reflected in a lower incidence of falls and improvement in postural balance. Financial support from FAPESP, process number 2011/14447-1.

P0306
PREVALENCE OF METABOLIC SYNDROME AND ITS CORRELATION TO BODY COMPOSITION AMONG SOUTH INDIAN POSTMENOPAUSAL WOMEN
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Objectives: Metabolic syndrome (MetS) is a major concern in postmenopausal women. The increased prevalence of MetS in postmenopausal women predisposes them at the risk of developing cardiovascular disease. The objectives of the study were to assess the prevalence of metabolic syndrome among south Indian postmenopausal women attending menopause clinic, to study the correlation between MetS and menopausal symptoms and to study the correlation of visceral fat among women with or without metabolic syndrome.

Method: Institutional and ethic board approval was obtained. It was a cross sectional study and informed consent obtained. We recruited 154 women attending menopausal clinic in our tertiary care centre. The new International Diabetes Federation (IDF) criteria were used to diagnose MetS while menopausal symptoms were assessed by using Menopause Rating Scale (MRS) questionnaire. Blood pressure and the waist circumference were measured and the participants were subjected to analyze fasting blood glucose level and lipid profile. Dual-energy X-ray absorptiometry (DXA) scanning was performed subsequently to assess the body composition in women with or without MetS.

Results: The prevalence of MetS was 64% (99/154). Patients with MetS weigh heavier (P=0.02) with greater body mass index (P=0.031) than the patients without MetS (P=0.02). Patients with MetS had greater systolic blood pressure (P=0.002) and waist circumference (P=0.00) when compared to women without MetS. Hot flushes (P=0.03) and heart discomfort (P=0.006) were greater in women with Mets. The total body fat (P=0.006), the estimated VAT (Visceral adipose tissue) mass, volume and area (P=0.006) were greater in women with MetS when compared to women without MetS.

Conclusions: Prevalence of MetS was 64%. Menopausal symptoms, total body fat and the estimated visceral adipose mass, volume and area were greater in women with MetS. However, further randomized controlled trials with larger population are warranted to identify the correlation between menopausal symptoms, metabolic syndrome and their body composition.

P0307
WHAT IS THE GREAT CONCERN OF THE HEALTH DISTURBANCE DURING THE SENILITY?
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Objectives: To evaluate the epidemiological aspects of health affections during the senility period.

Method: Retrospective study at Endocrinology Gynecology outpatient from Gynecology Section of Obstetrics and gynecology Department of Faculdade de Medicina da USP. The length of study was 10 years. We included patients aged more than 65 years old. We evaluate the health problems during the senility period.

Results: 768 patients informed data on the affections during the senility period. The most frequent is systemic arterial hypertension (57.96%), followed by depression (n=32.62%), gastrointestinal disturbance (27.19%), mellitus diabetes (15.93%), arthropathia (13.40%), tabagism (7.83%), heart disturbance (5.35%), liver disease (3.44%), breast cancer (3.11%) and others.

Conclusions: The cardiovascular disturbance, such as hypertension, is the great problem, but the depression is high during the senility. Both affections need more attention of gynecologist during the senility.
P0309
PREVALENCE OF OSTEOPOROSIS AMONG POST MENOPAUSAL WOMEN ATTENDING WELL WOMEN CENTRE IN A TERTIARY HEALTH INSTITUTION IN SOUTHEAST NIGERIA

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Objectives: To determine the prevalence of osteoporosis among postmenopausal women attending the well women centre in a tertiary health institution in Southeast Nigeria.

Method: This descriptive cross sectional study survey recruited 596 eligible women, attending Well Woman Centre at Federal Teaching Hospital, Abakaliki, Southeast Nigeria between September 2014 to February 2015. The self designed pretested study tool was self administered with the help of trained research assistants to consenting participants who were then screened for osteoporosis using Ultrasound Bone Densitometry of right calcaneal bone. Data was analyzed using Epi-info Statistical software 2012 (CDC Atlanta, Georgia, version 3.5.4). Categorical variables were presented in tables. Chi square, fishers exact test and T-test were used for associations and level of significance set at P value 0.05.

Results: Five hundred and Ninety six (596) women attended the centre during the study period. A total of 84 (14.1%) women were postmenopausal with mean age of 54.6±22.2 and age ranged 43 to 80 years. The Mean T score was −0.7 ±9.6 and the mean Z score was 0.6 ±8.4. Osteoporosis and osteopenia were recorded in 23 (27.4%), and 24 (28.6%) of the postmenopausal women respectively. The rest, 37 (44.0%) were normal. There was higher prevalence of osteoporosis among alcohol consumers than non-alcohol consumers but this difference was not statistically significant (P value = 0.46515; P>0.05).

Conclusions: Osteoporosis is very prevalent in the study population and possible modifiable risk factor is alcohol consumption. There is need to scale up this investigation among the population to ascertain the true prevalence and possible risk factors in order to inform policies that may help ameliorate this disorder.

P0310
USE OF DIAGNOSTIC HYSTEROSCOPY IN ABNORMAL UTERINE BLEEDING IN PERIMENOPAUSAL AGE GROUP AND ITS CLINICOPATHOLOGICAL CO-RELATION WITH ULTRASOUND AND HISTOPATHOLOGY FINDINGS: A STUDY IN TERTIARY CARE TEACHING INSTITUTE, MUMBAI

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Objectives: To study and compare the various diagnostic modalities; i.e. Hysteroscopy,Ultrasound & Histopathology for diagnosis of cause of Abnormal uterine bleeding in women of age group 40–45 years, Peri menopausal pts in tertiary Hosp Cama & Alibess Hosp for Women.

Method: The following study is a retrospective observational study of all diagnostic hysteroscopies performed for AUB in 40–45 yr age group at our tertiary care Hospital for woman (April 2012 & January 2015). We studied 66 cases of conventional diagnostic hysteroscopies at our institute to establish correlation of hysteroscopy findings with other diagnostic tools i.e. Ultrasound and histopathological findings.AUB accounts for two-thirds of all hysterectomies worldwide. Evaluation of the endometrium as a cause of AUB is done mainly in three modes i.e. by Imaging of endometrium by transvaginal/transabdominal ultrasound, Visual assessment by hysteroscopy and cellular assessment by microscopic evaluation of endometrial samples done in study.

Results: On Ultrasound 65.2% of the endometrial pathologies leading to AUB were due to endometrial hyperplasia with polyp accounting for 4.5%. 43.5% of the total patients were having fibroid as associated pathology on Ultrasound. On hysteroscopy more number of cases of polyp were diagnosed (21.2%) as compared to ultrasound (4.5%). On histopathological appearance we found simple hyperplasia in 4.5% of cases and simple hyperplasia with atypia in 1.5% all of cases i.e. 6% total cases of hyperplasia. These are potentially carcinogenic patients. 47% of cases had endometrium in proliferative phase which is the commonest pathological finding on histopathological examination.

Conclusions: The relatively poor sensitivity of both endometrial biopsy and ultrasound in the detection of intrauterine focal pathology, in the study of 66 patients at our teaching institute at Cama & Alibess Hospital for women Mumbai. It is recommended & proposed that Hysteroscopy should be utilized as a first line investigation in Abnormal uterine bleeding for better & more accurate diagnosis & effective treatment of the patients in peri -menopausal age group. Reassuring the Anxiety & stress in this crucial & sensitive in peri-menopausal period of the patients life.

P0311
MENOPAUSAL HEALTH STATUS OF WOMEN IN NEPAL

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Objectives: Menopause is an unavoidable yet problematic condition in which women suffer from a number of health problems during the premenopausal period. Knowledge of the major symptoms associated with the menopause helps reduce the burden and stress associated with the condition. Nepalese women have low socio-economic status as compared to other women of the neighbouring countries like India and China. Thus it is imperative to conduct a study to establish baseline data regarding menopausal health problems among Nepalese women.

Method: This descriptive cross-sectional study was conducted from July 2014 to February 2015 among 2000 Nepalese women from Kathmandu, Lalitpur and Bhaktapur districts aged more than 40 years to identify the knowledge, attitude and practice related to menopausal health problems. Different questions were asked to the women regarding menstrual history of women, obstetric history, contraceptive history, life style details, knowledge towards menopausal symptoms, attitude towards menopause and menopausal problems experienced by the women. Their health seeking behaviour was also assessed when they faced the menopausal health problems. Data were entered in Microsoft excel 2013 and was analysed using SPSS version 20.

Results: Mean menopausal age was 48.5 and 59.2% had not heard about menopausal symptoms. Nearly half regarded menopause as normal part of life. About 36.8% had joint/muscle pain, hot flushes; followed by hot flushes (29.25%), abnormal bleeding (29.1%), physical exhaustion (28.1%), irritability (24.9%), forgetfulness (24.1%). 26.2% had urgency followed by frequency (25.1%), dysuria (18.4%), incontinence (15.4%) and nocturia (15.2%). About 38.4% had irregular bleeding, 15.2% had heavy bleeding, and 12.6% had spotting. Only 29.3%
consulted health workers while about 1.3% consulted traditional healers, 1.1% consulted elderly women. About 13.6% used medicines, 1.8% did yoga, 2% used herbs to relieve the symptoms.

**Conclusions:** The mean menopausal age was 48.5. Three of them reached menopause before 40 years of age. There was less knowledge on menopause among Nepalese women. Since menopausal symptoms and its related problems negatively affected the health of middle-aged women, more attention is needed to them and their problems. Majority in the study experienced menopausal symptoms but few regarded these symptoms as problems and sought medical attention. With awareness raising and timely screening services; the prevalence of menopausal health problems could largely be reduced. Researchers, policy makers, and authorities can use this study as baseline data for further steps ahead.

**P0312**

**DOES MULTIPARITY AND PROLONGED BREAST-FEEDING HAVE EFFECTS ON MATERNAL BONE MINERAL DENSITY (BMD) IN POST-MENOPAUSAL AGE**

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**Objectives:** Longitudinal studies have shown that bone loss associated with pregnancy and breast-feeding is usually recovered after weaning. Current evidence has arisen from studies conducted in developed countries, where frequent pregnancies and prolonged breast-feeding are relatively uncommon, and where the nutritional intake is usually adequate. However, it is not clear whether this bone loss is completely recovered in women who have borne many children or in women with a longer total duration of breast-feeding.

This study was therefore designed to evaluate the effects of repeated pregnancy and prolonged breast-feeding on BMD in a cohort of postmenopausal women in Uzbek population.

**Method:** BMD of the lumbar spine (L2–L4) and femoral neck were measured at 100 postmenopausal women aged 46–75 by dual-energy X-ray absorptiometry (“Delphi N”, “Hologic”). Reproductive history was recorded by using a questionnaire. Women were, first, divided into groups according to parity (nulliparous, 1–2, 3–4, and 5 or more children), and BMDs in different groups were compared, initially unadjusted and then adjusted for age. Same subjects were subdivided, again, according to the total duration of breast-feeding (0, 1–48, 49–96, and 97 months or more) and similar analysis was carried out.

**Results:** In the 40- to 59-year group, the BMD of the spine in both the nulliparous and one-to-two-parity groups was significantly higher than that of the more-than-five-parity group (P<0.05). The nulliparous and one-to-two-parity group patients in the 60- to 75-year group spine BMD values appeared to be significantly higher than those of the more-than-five-parity group (P<0.05). Significant correlations were found between the number of pregnancies and BMD values for the spine (P<0.01), with no significant correlation for femur neck BMD (P>0.05) values.

**Conclusions:** In conclusion, the present study indicates that there is a significant correlation between the number of pregnancies and the spine, but there is no correlation for the femur neck BMD. Study suggests that the number of pregnancies has an effect on the BMD values and that this situation shows a variation in different age groups.

**P0313**

**IS IT IMPORTANT TO DETERMINE THE LEVEL OF VITAMIN D3 IN THE SERUM OF POSTMENOPAUSAL WOMEN AND THE FACTORS THAT AFFECT ITS PERFORMANCE**

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**Objectives:** It is known that vitamin D deficiency and reduced calcium intake are risk factors for osteoporosis in various age groups. Numerous studies have shown that deficiency of vitamin D plays an important role in the development of senile osteoporosis and is an essential component for prevention and treatment of this disease. However, disturbances of bone remodeling observed in 85% of postmenopausal women.

**Objective:** to estimate the concentration of 25-hydroxyvitamin D, indicators of bone mineral density in postmenopausal women to justify the contribution of vitamin D deficiency in the process of bone remodeling.

**Method:** The study included 22 women aged 50–75 years who have different manifestations of the climacteric syndrome and menopause duration of at least 2 years. Vitamin D is considered normal values of 25(OH)D equal to or greater than 75 mmol/L, is not enough – at values from 50 to 75 mmol/L, values below 50 mmol/L were regarded as deficient in vitamin D. Determination of bone mineral density was carried out dual energy X-ray absorptiometry (DXA) in the lumbar spine and femoral neck on the unit (HOLOGIC).

**Results:** The study showed that the concentration of 25 (OH)D in the serum of postmenopausal women ranged from 10.4 to 124, 0 mmol/L and an average of 38.2±2.2 mmol/L. Revealed that over 85% of women experience a lack or deficiency of vitamin D, and only 15% of indicators calcidiol serum were normal. Level of 25(OH)D were not significantly different in different seasons. It was found that the concentration of 25(OH)D was in the studied population was affected by overweight and obesity.

**Conclusions:** Thus, this study found that almost all postmenopausal women in varying degrees of severity there is a deficiency of vitamin D, which, like estrogen deficiency plays an important role in the formation of bone remodeling. The link between the concentration of vitamin D performance X-ray absorptiometry in postmenopausal women makes it necessary to include it in the compulsory comprehensive treatment and prevention of disorders of bone metabolism.

**P0314**

**A WATER-SOLUBLE HIGH MOLECULAR WEIGHT SUBSTANCE ISOLATED FROM HYUGANATSU ORANGE (CITRUS TAMURANA), SUSPECTED TO BE A POLYSACCHARIDE, INHIBITS RAT OSTEOCLAST CELL FORMATION**

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**Objectives:** Osteoporosis is detrimental to aged women’s health care. We previously reported that Hyuganatsu orange (Citrus Tamurana) contains active substances that inhibit osteoclast activities. Prior to conducting a human study, we sought to identify the biological active substance in Hyuganatsu orange that suppresses osteoclast formation.

**Method:** We isolated five fractions from Hyuganatsu orange extract according to molecular weight. Each fraction was tested to determine its suppressive effect on the formation of osteoclasts in rats.

**Results:** The highest and lowest molecular weight fractions showed significant suppression activity on rat osteoclast formation (p<0.05). The lowest molecular weight fraction was identified as hesperidin using thin layer chromatography.

**Conclusions:** Hyuganatsu orange contains a biological active substance other than hesperidin that may be a polysaccharide and may suppress osteoclast formation.
P0316
MANAGEMENT OF COMPLETE VAGINO-UTERINE SEPTUM IN PATIENTS SEEKING FERTILITY: REPORT OF TWO CASES AND REVIEW OF LITERATURE

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Objectives: Septate uterus is the most common congenital uterine anomaly encountered clinically. It is associated with infertility and adverse pregnancy outcomes including miscarriages and preterm births. Over the past few decades, the diagnosis and surgical management of uterine septum has changed significantly. Here, we present two women with complete vagino-uterine septum presenting with infertility. We present literature review on evidence on each available treatment options.

Method: 2 cases report and literature review.

Results: A literature review of the approach to managing complete vagino-uterine septum suggests the use of combinatorial imaging modalities such as hysterosalpingography (HSG), 3D ultrasonography and MRI to accurately define the anatomy. Furthermore, compared to open surgery, treatment through hysteroscopic approaches are associated with shorter operating time and good fertility outcomes. With the use of concomitant laparoscopic and ultrasound monitoring, the incidence of uterine perforation and visceral injury may be reduced.

Conclusions: Complete uterine septum can be managed safely through hysteroscopic surgery with good outcome. Referral to a centre with such expertise is essential.

P0315
EPIDEMIOLOGICAL PROFILE OF PATIENTS PRESENTING LICHEN PLANUS AT A REFERENCE CENTER IN SAO PAULO, BRAZIL

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Objectives: Lichen Planus is one of the most common idiopathic diseases, with a 0.5 - 2.3% incidence in general population. The most frequent forms of the disease are cutaneous and mucosal. Mostly affects women, and 25% of those with oral Lichen Planus might present associated genital lesions. The objective was to evaluate clinical and epidemiological profile of patients diagnosed with Lichen Planus at a reference center for vulvar pathology in São Paulo, Brazil.

Method: We retrospectively evaluated medical records of 38 ambulatory patients with biopsy-confirmed diagnosis of Lichen Planus from 2009 to 2013 at Hospital das Clinicas of the University of São Paulo Medical School.

Results: Most patients were married perimenopausal women with a median age of 54.7 years. Frequent co-morbidities were hypertension and diabetes. The main clinical presentation was chronic pruritus associated to genital atrophy or adhesions and erithematous or exulcerated areas. Best results in treatment were achieved with topical corticosteroids.

Conclusions: Vulvar Lichen Planus is a frequently subdiagnosed disease, which increases the pathology evolution and sequels. By establishing a standard epidemiological profile, more patients could be diagnosed and adequately treated.

Gynecological Endoscopy

P0318
HYSTEROSCOPIC MANAGEMENT OF ABNORMAL UTERINE BLEEDING IN VIRGINS WITH HYMEN PRESERVATION

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Objectives: To assess the efficacy of hysteroscopy in management of abnormal uterine bleeding in virgins with hymen preservation.

Method: Twenty three virgin cases complaining of persistent AUB not responding to medical or hormonal treatment included in this work. The patients underwent diagnostic office vaginoscopy and hysteroscopy. Sixteen patients had no organic lesions and biopsy was done using 5-Fr cold biopsy grasper. Six patients had endometrial polyps and two had cervical polyps. All polyps were removed using 5-Fr cold scissors and hemostasis was done using 5-Fr bipolar electrode. One case with cervical myoma occupying the vagina was managed by traditional resectoscope. Histopathology examination was done for all specimens.

Results: Hymen was intact in all cases. All the patients were discharged within 24 hours with minimal bleeding which stopped within 10 post-operative days.

Conclusions: Office hysteroscope is a good modality for diagnosis and treatment of organic causes of AUB in virgins with hymen preservation.

P0317
DIAGNOSTIC AND OPERATIVE HYSTEROLAPAROSCOPY – EFFECTIVE METHOD IN THE TREATMENT OF INFERTILITY

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Objectives: To study the outcome of diagnostic and operative hysteroscopy in the treatment of infertility.

Method: All patients who underwent endoscopic procedures for infertility for a period of 1 year from June 2013 to May 2014 at Ambedkar medical college, Bangalore. The total number of patients were 48. The diagnosis was primary and secondary infertility.

Results: 66.66% of study population had primary infertility. 33.33% had secondary infertility. The most common indication was pcos 42% of patients. 42% of population had marital life of > 5 years.

Hysterolaparoscopy were done for 41 patients. 7 patients underwent only hysteroscopy.

The hysteroscopic findings were polps (10%), septum (17%), polypoidal endometrium (17%), 48% patients had normal findings. The laparoscopic findings were polycystic ovaries (42%), fibroids (10%), ovarian cyst (21%). Only two patient had normal findings.

Operative procedure performed.

13 patients did not follow up, 16 patients conceived in subsequent cycles. 2 patients were referred for IVF and 17 patients are still undergoing treatment.

Conclusions: Endoscopic procedures done for the treatment of infertility both primary and secondary not only help in diagnosis of anatomical abnormalities but enable us to correct the defects and proved very useful for the treatment. Performing a hysteroscopy can improve the pregnancy rates in cases of unexplained infertility, recurrent pregnancy losses and secondary infertility.
**P0319**
**SINGLE-PORT LAPAROSCOPIC DEBULLING SURGERY OF VARIANT BENIGN METASTATIC LEIOMYOMATOSIS WITH SIMULTANEOUS LYMPHATIC SPREADING AND INTRAPERITONEAL SEEDING: A CASE REPORT**

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**Objectives:** Benign metastatic leiomyomatosis (BML) is a rare disease characterized by smooth muscle cell proliferation in extraterine sites including the lung, abdomen, pelvis, and retroperitoneum. Depending on location, BML is classified as intravenous leiomyomatosis (IVL) or diffuse peritoneal leiomyomatosis (DPL). Treatment options are observation, hormonal suppression, and/or surgical debulking via laparotomy or laparoscopy. Laparoscopic surgery is gaining in popularity in the gynecologic field compared to laparotomic surgery, and single-port laparoscopy (SPL) has the benefits of cosmesis and early tissue extraction by transumbilical morcellation. We report a 39-year-old woman with DPL who underwent SPL debulking surgery.

**Method:** Benign metastatic leiomyomatosis (BML) is defined as a muscle tumor in association with one or more smooth muscle tumors of the uterus and without evidence of any extraterine primary site. Laparoscopic surgery decreases postoperative pain and is associated with a shorter recovery period than laparotomic surgery. Although single-port laparoscopy (SPL) with a small single transumbilical incision is technically more difficult than multi-port laparoscopy, SPL has the advantages of better cosmesis and easier tissue extraction via transumbilical morcellation than laparotomic surgery.

**Results:** We started with a vertical incision 2-cm in length in the transumbilicus. Numerous firm, smooth nodules with diameters ranging in size from 2 cm to 8 cm were present on the surface of the omentum, Douglas pouch, peritoneal wall, both adnexae, small bowel, and para-aortic, common iliac, and external iliac lymph nodes. We performed bilateral salpingo-oophorectomy, total omentectomy, para-aortic, common iliac, and external iliac lymph node dissection, and multiple mass excisions. Histological evaluation demonstrated nodular structures with spindle cells. Signs of malignancy, including nuclear atypia or mitotic activity, were not found.

**Conclusions:** To our knowledge, this is the first report of BML with simultaneous lymphatic spread and peritoneal seeding of leiomyomatosis. Further, this is the first report of SPL debulking surgery to treat BML. In summary, BML is a rare disease associated with a current or prior history of uterine leiomyoma that usually follows a benign course. BML must be distinguished from low-grade leiomyosarcoma, and long-term close surveillance is required for early detection of disease recurrence or distal metastases in patients with a previous history of uterine surgery.

**P0320**
**LAPAROSCOPIC BILATERAL TEMPORARY UTERINE ARTERY CLIPPING AT ORIGIN AND IP LIGAMENTS FOR LAPAROSCOPIC MYOMECTOMY**

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**Objectives:** To control bleeding at laparoscopic myomectomy by a simple technique before starting the procedure.

**Method:** 51 patients treated at Sanjeevani Hospital, Kolkata India, between June 2012 and June 2014 with fibroids >6cm underwent laparoscopic myomectomy after opening the lateral pelvic wall between round ligament and IP ligament and dissecting the para-rectal fossa and one structure that crosses it transversely is uterine artery, which is dissected and clipped with LT 400 titanium clips and the same is used to clip the IP ligaments. Then laparoscopic myomectomies are done after instilling normal saline and after intracorporeal stitching with vicryl the clips are removed from bilateral IP ligaments and uterine arteries.

**Results:** All 51 patients had minimum intraoperative bleeding and after applying clips to bilateral IP ligaments and uterine arteries at origin – the uterus blanched immediately and after completion of procedure once the clips were removed immediately uterine artery pulsation was seen and there was no major ooze. None required blood transfusion.

**Conclusions:** This simple technique of controlling bleeding during myomectomies with readily available LT 400 titanium clips and avoiding vasopressin which has numerous side effects and also avoids blood transfusions is excellent. Also as post operative ooze will be minimum so chance of adhesions are less with good fertility outcome.

**P0321**
**LAPAROSCOPICALLY MANAGED CAESAREAN SCAR ECTOPIC PREGNANCY – A NOVEL CASE REPORT**

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**Objectives:** Pregnancy at the site of previous caesarean scar is a rare occurrence. Its management by laparoscopic surgery is rarely reported (S.Jiang 2013 www.paper.edu.cn). Moreover, it has never been reported in our country. The aim is to share this rare case with the world. Also to signify the importance of laparoscopy as a method of confirmation and treatment with less morbidity.

**Method:** 32 years, para three, presented in outpatient with eight weeks amenorrhea and spotting for one week. She had three caesarean sections. Her BshCg was 10,072 mIU and ultrasound scan showed suspicion of retained pieces of conception. She was medically treated. She bled heavily the next day. BshCG was 5000 mIU and scan revealed thinned myometrium in the region of previous scar with a fluid filled cavity. Laparoscopy was planned with a provisional diagnosis of scar ectopic. On entry a sac of two centimeter was seen over caesarean scar. It was opened, gestational products extracted and defect repaired. Tubal ligation done.

**Results:** Three port laparoscopic surgery was completed successfully in sixty minutes. Patient recovered well. Histopathology confirmed products of conception. Two week follow up was uneventful.

**Conclusions:** The rare cases like this one, if diagnosed timely and accurately can prevent woman from morbidity of severe hemorrhage and hysterectomy. Laparoscopy is a safe option for its diagnosis and treatment.

**P0322**
**MALIGNANT LYMPHOMA, WHICH WAS DIAGNOSED BY PELVIC LYMPH NODE BIOPSY DURING A TOTAL LAPAROSCOPIC HYSTERECTOMY: CASE REPORT**

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**Objectives:** We report a rare case of a malignant lymphoma that was diagnosed by pelvic lymph node biopsy during a total laparoscopic hysterectomy for cervical carcinoma in situ (CIS).

**Method:** The patient was a 65-year-old woman with an unremarkable past history. She was referred to our hospital because a cervical cancer screening revealed a high-grade squamous intraepithelial lesion (HSIL): A cervical biopsy revealed squamous cell carcinoma in situ, which was confirmed by cervical conization. Moreover, she
complained of an enlarged lymph node in her neck. For this reason, she was referred to the department of otorhinolaryngology. Although fine-needle aspiration cytology of the cervical lymph node was performed twice, the results were negative.

**Results:** We recommended a total laparoscopic hysterectomy for the cervical CIS after providing informed consent. During the procedure, we biopsied a right obturator lymph node, which was noted to be enlarged with a pelvic MRI. Histologic examination revealed no residual tumor in the cervix; however, the lymph node was diagnosed as a grade 2 follicular lymphoma. She was subsequently diagnosed as a stage III malignant lymphoma (Ann Arbor classification) and is currently receiving R-CHOP chemotherapy in department of hematology.

**Conclusions:** In our experience, laparoscopic lymphadenectomy is useful not only for the diagnosis of gynecological malignancies but also for the diagnosis of non-gynecological malignancies. Laparoscopic surgery can determine the cause of lymph node enlargement within the scope of less invasive surgery.

**P0323**

**IS RESECTOSCOPIC ENDOMETRIAL ABLATION EFFECTIVE FOR TREATMENT OF ABNORMAL UTERINE BLEEDING OF PATIENTS WITH NON-ATYPICAL ENDOMETRIAL HYPERPLASIA?**

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**Objectives:** To analyze the effective of resectoscopic endometrial ablation for treatment of abnormal uterine bleeding of patients with non-atypical endometrial hyperplasia.

**Method:** We performed a retrospective study between January 2003 and December 2008 at Disciplina de Ginecologia do Departamento de Obstetrícia e Ginecologia, Hospital das Clínicas, Faculdade de Medicina da Universidade de São Paulo. We included 249 women with abnormal uterine bleeding and non-atypical endometrial hyperplasia through previous biopsy. We followed up during five years.

**Results:** 240 and 9 patients presented no menses (amenorrhea) and hypomenorrhea after two months of treatment, respectively. We did not register recurrence of endometrial hyperplasia.

**Conclusions:** Endometrial ablation is an effective treatment of abnormal uterine bleeding of patients with non-atypical endometrial hyperplasia.

**P0324**

**HOW IS THE ACCURACY OF ULTRASOUND DIAGNOSIS OF POLYP AFTER HYSTEROSCOPY?**

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**Objectives:** To confirm the frequency of endometrial polyp through hysteroscopy in the period between 2006 and 2014 in patients with previous ultrasound diagnosis of endometrial polyp.

**Method:** This is a retrospective study of medical records from Disciplina de Ginecologia do Departamento de Obstetrícia e Ginecologia, Hospital das Clínicas, Faculdade de Medicina da Universidade de São Paulo. We evaluated 3265 patients between 2006 and 2014 with a diagnosis of endometrial polyp through pelvic ultrasound exam. All patients were submitted to diagnostic hysteroscopy and endometrial biopsy, which were evaluated by two independent and double blind pathologists. The median age was 50.66 (IC 95:22–85). Also, the uterine bleeding history was evaluated.

**Results:** We performed the hysteroscopy in 98.3%. The main limitations to perform this procedure were pain, cervical stenosis and active bleeding presence during the examination. The confirmation of polyp was 78.3% in all patients. When we only included the abnormal uterine bleeding, the accuracy of ultrasound was 95.3%. In old patient (> 70 ages), there are some cases of endometrial cancer (n=6).

**Conclusions:** The ultrasound has great accuracy for endometrial polyp in patients with history of abnormal uterine bleeding.

**P0325**

**ACUPUNCTURE IS HIGHLY EFFECTIVE FOR PAIN RELIEF DURING THE HYSTEROSCOPIC PROCEDURE FOR TUBAL OCCLUSION DURING THE ESSURE INSERTION: A PROSPECTIVE STUDY**

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**Objectives:** To evaluate the efficacy of acupuncture for decreasing the pain during the hysteroscopic procedure for tubal occlusion during the ESSURE insertion.

**Method:** We performed a prospective study through January 2010 to March 2014 for evaluate the acupuncture as alternative for releasing the pain during the hysterectomy for tubal occlusion using the ESSURE device. The study was open and not blind, neither randomized. The patients were divided into two groups: a) classic procedure; b) acupuncture. We used a specific questionnaire for evaluate the pain.

**Results:** We performed the procedure in 261 patients: a) classic (n=140); b) acupuncture (n=121). Forty-two (30%) of patients with classic procedure without anesthesia reported moderate discomfort and low intensity pain. No complain was detected in the acupuncture group.

**Conclusions:** The acupuncture is effective for pain relief during the hysteroscopic procedure for tubal occlusion during the ESSURE insertion.

**P0326**

**IS REALLY IMPORTANT SCREENING OF C-HEPATITIS VIRUS IN PATIENTS BEFORE THE DIAGNOSTIC HYSTEROSCOPY?**

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**Objectives:** To evaluate the incidence of c-hepatitis virus in patients before the diagnostic hysteroscopy.

**Method:** The patients were from Disciplina de Ginecologia do Departamento de Obstetrícia e Ginecologia, Hospital das Clínicas, Faculdade de Medicina da Universidade de São Paulo. The length of study was consecutive five years. We evaluated serological tests for hepatitis c virus by ELISA and confirmed by polymerase chain reaction for all patients before the diagnostic hysteroscopy. Also, we collected clinical history of hepatitis.

**Results:** The total evaluated patients was 21.552 patients. We detected 16% (n=1347) with positive test for c-hepatitis virus in five years. After polymerase chain reaction, the false result was 20%. The clinical history of hepatitis was reported by only 121 patients (1.3%).

**Conclusions:** Our results showed the frequency of c-hepatitis virus is high in population, which is a great concern due to the risk of contamination.
**P0327**

**MAY 4MM ENDOMETRIAL THICKNESS CUT-OFF BE IMPORTANT FOR EVALUATION OF ASYMPTOMATIC PATIENTS THROUGH HYSTEROscopy?**

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**Objectives:** To evaluate the asymptomatic patients with 4mm endometrial echo thickness for endometrial changes.

**Method:** We performed a retrospective study at Disciplina de Ginecologia do Departamento de Obstetricia e Ginecologia da Faculdade de Medicina da Universidade de São Paulo. We included 1400 asymptomatic postmenopausal patients from January 1997 to December 2008 with endometrial echo thickness equal or superior 4mm for evaluation through hysteroscopy. Also, we performed endometrial biopsy when there is any change in the cavity.

**Results:** The most patients presented endometrium with atrophy (60%), followed by myoma and endometrial polyp (30%) and hyperplasia (n=9.8%). The cases of adenocarcinoma was inferior to 0.2%

**Conclusions:** After hysteroscopy, the adenocarcinoma cases are low with cut-off 4mm after pelvic sonograph study.

**P0328**

**SURGERY COMPLICATIONS DURING HYSTEROscopy FOR TUBAL OCCLUSION USING ESSURE™**

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**Objectives:** To evaluate the surgery complications during and after the hysteroscopy for tubal occlusion using ESSURE™.

**Method:** We performed our study at Disciplina de Ginecologia do Departamento de Obstetricia e Ginecologia, Hospital das Clínicas, Sao Paulo University Medical School, São Paulo/SP, Brazil

**Results:** In general, the procedure was well tolerated and there was no need of hospitalization. The mean score of analogical pain scale was 2.0. In our study, five adverse events were found: two abdominal migration (0.7%), one device expulsion (0.3%), and two cases of pregnancy (0.7%); eleven and twelve months after the insertion, respectively, in one case, short term control was missed. In the second case of pregnancy, sonography showed adequate localization of the device. The total rate of complication was 1.9%. We did not register any severe complication with ESSURE.

**Conclusions:** Our data suggested the Essure™ sterilization procedure presented low levels of complications.

**P0329**

**SEARCHING FOR THE MOST ADEQUATE TECHNIQUE FOR ENDOMETRIAL BIOPSY IN INFERTILE WOMEN**

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**Objectives:** To identify the most adequate technique for endometrial biopsy sampling and evaluation for women with infertility.

**Method:** We included 30 infertile and 10 fertile female patients. The study participants underwent two different endometrial biopsies during the medial luteal phase of their menstrual cycle. One biopsy was a directed hysteroscopy of both the anterior uterine wall and the proximal third of the posterior wall. The other technique was the Pipelle aspiration biopsy. Blinded computer-assisted morphometric and anatomopathological analyses were conducted independently by two pathologists. The pathologists had no knowledge of each subject’s fertility status, the area sampled or the technique used. The two endometrial sampling biopsy techniques were compared as to morphometries and anatopathology.

**Results:** Both biopsy techniques produced enough material for analysis. The directed biopsies produced higher quality samples from targeted segments of the uterine cavity. Blood was only present in the samples obtained through aspiration. Endometritis was detected in 10% of infertile women.

**Conclusions:** The endometrial biopsy obtained by hysteroscopy outperformed the aspiration technique regarding the homogeneity of samples and preservation of the tissue integrity.

**P0330**

**TOTAL LAPAROSCOtic HystereCTomy, BILATERAL SALPINGO-OOhRECTOMY AND COLPECTOMY IN FEMALE TO MALE TRANSEXUAL PATIENTS**

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**Objectives:** To present our initial experience with the laparoscopic treatment of transsexual patients selected for surgical sex change.

**Method:** Twenty patients were referred by the multidisciplinary group caring for transsexual patients at our institution between 2010 and 2015. All patients had been previously submitted to hormonal treatment and psychological and psychiatric evaluation and follow up. Hysterectomy, bilateral salpingo-oophorectomy and colpectomy were performed as a first step in a series of surgical treatments to culminate with sex change. All twenty patients were submitted to routine clinical and imaging evaluation prior to surgery.

**Results:** All procedures were carried out without intra-operative complications. An average of 3 cm of vagina was removed. Two initial patients presented with a fecaloma one week after surgery, but resumed normal bowel function afterwards. Pathology findings were unremarkable. Mean uterine volume was 90 cc.

**Conclusions:** Total Laparoscopic hysterectomy associated to bilateral salpingo-oophorectomy and colpectomy are a viable alternative to the surgical treatment of transsexual patients.

**P0331**

**SUCCESSFULLy REMOVED UNFAvORABLY LOcATED MYOMAS BY ROBOT-ASSISTED LAPAROSCOPIC MYOMECTomy**

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**Objectives:** To evaluate the efficacy of robot-assisted laparoscopic myomectomy for unfavorably located myomas as a treatment for women who wish to preserve fertility.

**Method:** Patients: Patients who underwent robot-assisted laparoscopic myomectomy for unfavorably located myomas. Intervention(s): A retrospective chart review for 170 cases of robot-assisted laparoscopic myomectomy by a single operator between April 1, 2009 and October 30, 2013. Main outcome measure(s): Location and number of removed myomas, diameter of myoma with largest size, sum of diameters of each myoma, operative time, console time, complications, length of postoperative hospital stay, and postoperative fertility outcome.

**Results:** There were 113 cases of robot-assisted laparoscopic myomectomy for unfavorably located myomas, including 100 cases of...
deep intramural myomas, 7 cases of cervical myomas, 6 cases of intraligamentary myomas. The patients had 3.9±3.8 myomas on average, and the mean size of the largest myoma was 7.5±2.2 centimeters in diameter. Mean operative time was 317.0±99.8 minutes, and mean console time was 148.0±65.1 minutes. Postoperative hospital stay was 2.5±1.0 days on average, and all the patients recovered without any major complication. After the surgery, 11 (78.6%) of the 14 women pursuing a pregnancy became pregnant.

Conclusions: For patients with unfavorably located myomas, robot-assisted laparoscopic myomectomy could be a minimal invasive surgical option for women who wish preserve fertility.

P0332 IMPORTANCE OF LAPAROSCOPIC ASSESSMENT OF THE PELVIS IN A WOMAN HAVING A SHORT AND BLIND ENDING VAGINA. A CASE REPORT

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Objectives: Vaginal atresia and agenesis are congenital anomalies of the female genital tract and may occur as an isolated defect or as part of a complex of anomalies. Isolated vaginal atresia is rare. Most cases are associated with the more common Rokitansky-Mayer-Kuster-Hauser (RMKH) syndrome.

Method: A 37 year old married woman presented to us with lower abdominal pain. She has been investigated in the past for primary amenorrhoea and primary sub fertility. No proper diagnosis has been made so far.

The physical examination noted normal body mass index, normal breasts and normal body hair pattern. Her vulva appeared normal. Her vagina was short (4 cm) and blind ending. No other abnormalities were found.

Clinically, she is diagnosed to have RMKH syndrome (Type 1). A laparoscopy performed to locate and describe internal genital organs.

Results: Laparoscopy showed three uteri located in the left, central and the right side of the pelvis. All seem to be connected to each other. Left side uterus is little smaller than a normal uterus which is connected to a normal fallopian tube and an ovary. The central and the right uteri are hypoplastic. Left side uterus showed a small pedunculated fibroid (2 cm in diameter) and connected to a normal Fallopian tube and a ovary. Some endometriotic patches were also noted in the pelvis.

Conclusions: Our patient was diagnosed to have RMKH syndrome (Type 1) with unique uterine malformations which were not reported earlier. Laparoscopic assessment is of great importance in defining the exact anatomical characteristics of RMKH syndrome.

P0333 ROBOTIC-ASSISTED LAPAROSCOPIC COMPLEX MYOMECTOMY OF MULTIPLE MYOMAS AND HUGE MYOMA

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Objectives: Conventional laparoscopic myomectomy (LM) has inherent limitations due to its rigid structure. The robotic system is a newly developed technology equipped with a flexible EndoWrist that offers good performance in delicate motions. Our objective was to share our clinical experiences in the management of Robotic-assisted LM of multiple myomas and huge myoma.

Method: From January 2010 to November 2014, 183 patients with multiple uterine myomas were evaluated including 1 patient who had 36 myomas and 1 patient who had 16cm uterine myoma. Robotic-assisted LM was defined as surgery involving more than two myomas, large myomas, or preexisting pelvic adhesions. We recorded and analyzed the preoperative characteristics of the patients and the fibroids, the detailed surgical time, and several post-operative outcomes to evaluate the feasibility and efficacy of robotic-assisted LM for complex fibroids.

Results: From January 2010 to November 2014, 183 patients with multiple uterine myomas were evaluated including 1 patient who had 36 myomas and 1 patient who had 16cm uterine myoma. Robotic-assisted LM was defined as surgery involving more than two myomas, large myomas, or preexisting pelvic adhesions. We recorded and analyzed the preoperative characteristics of the patients and the fibroids, the detailed surgical time, and several post-operative outcomes to evaluate the feasibility and efficacy of robotic-assisted LM for complex fibroids.

Conclusions: Our study results demonstrated that Robotic-assisted LM is a safe and effective method for handling multiple myomas over the thirties.
Median number of removed lymph node was 49 (range 22–70). Am-
bullation and dietary intake was started in day 0. Median hospital stay
was 6 (range 5–12) days. Median size of the umbilical incision was 2.0
(range 1.5–3.0) cm.

Conclusions: This report suggests that single port laparoscopic rad-
cial hysterectomy in the treatment and surgical staging for uterine
cervical and endometrial cancer is feasible. Furthermore this pro-
dure may avoid additional ancillary ports insertion in case of peri-
toneal defect and allow the patients to be taken following treatment
readily.

P0336
SINGLE PORT LAPAROSCOPIC POSTERIOR PELVIC EXENTERATION:
THE FIRST EXPERIENCE (A CASE REPORT)
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Objectives: A 61 year old woman affected by squamous carcinoma
of the vagina, FIGO clinical stage IVA (tumor involving posterior vagi-
nal wall and rectal mucosa), with enlarged external iliac lymph nodes
at a CT scan and PET-CT, was scheduled to whole pelvis irradiation.
However the treatment was not sustainable more than two weeks
owing to complications such as severe abdominal pain, intractable
diarrhea and subsequent radiation phobia. After mature considera-
tion, we decided to perform a single port laparoscopic posterior ex-
enteration for the treatment of the disease.

Method: A 2.0 cm incision was made away from the umbilicus to the
left. Open access was performed. After the introduction of single port,
12 mm Hg pressure of CO2 gas was insufflated into intraperitoneal
space. A 5 mm, 30° laparoscope and instruments were inserted into
the port. After identification retroperitoneal structure, development of
the retroperitoneal space was continued. The right internal iliac
artery, the left uterine artery, the left obturator artery, the left mid-
dle rectal artery and the left vaginal artery were ligated with ligation
clip and LigaSure™. Inferior mesenteric artery was ligated with the
same manner.

Results: Posterior pelvic exenteration including radical hysterec-
tomy, subtotal vaginectomy saving for urethral orifice, lower ante-
rior resection, total pelvic peritonectomy and partial pubococcygeus
muscle resection was performed successfully without complication.
Operative time was 350 min and estimated blood was 500mL. Am-
bullation and dietary intake was started in day two. Patient was dis-
charged on day 20.

Conclusions: This report suggests that single port laparoscopic pos-
terior pelvic exenteration for alternative treatment of locally ad-
vanced vaginal cancer is feasible.

P0337
THE FACTORS AFFECTING THE FAILURE AFTER LAPAROSCOPIC
MANAGEMENT OF CORNUAL PREGNANCY
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Objectives: The purpose of this study is to assess the impact of the
various factors of cornual pregnancy on the treatment failure after
laparoscopic management.

Method: Medical records of the 77 patients diagnosed and managed
by laparoscopy were retrospectively analyzed. The independent vari-
ablest were gestational age, preoperative serum hCG level, methods
of surgery (cornual resection vs. cornuotomy), and use of prophylac-
tic methotrexate. Multivariate analysis as well as univariate analysis
was performed.

Results: Among the 77 patients, 16 patients were treated by cornuo-
tomy and 61 patients were treated by cornual resection. Prophylactic
methotrexate was administered to 16 patients. Laparoscopic man-
agement had failed in 5 patients. The use of prophylactic methotrex-
ate was found to be a sole factor affecting the failure rate by univari-
ate and multivariate analysis (OR: 0.54, 95% CI: 0.21–0.86).

Conclusions: Adding prophylactic methotrexate after laparoscopic
management can significantly reduce the chance of treatment fail-
ure. The failure rate of cornuotomy is not different from that of cor-
nual resection.

P0338
HYSTEROSCOPIC TREATMENT OF A CERVICAL ECTOPIC
PREGNANCY. CASE REPORT
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T. Arroyo-Lemarroy 1, C.A. Hernandez-Nieto 1,
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León, Monterrey, Nuevo León, Mexico

Objectives: To describe hysteroscopic treatment as an effective sur-
geonal intervention for cervical ectopic pregnancy.

Method: Case report. 28 year-old female with abdominal and vaginal
bleeding. She presented 7-week amenorrhea and a positive pregn-
ancy test. Pelvic ultrasound revealed empty uterus. gestational sac
with 6.2 week embryo was identified in the cervical canal. Fetal heart
beat was present. Findings during hysteroscopy was an ectopic preg-
nancy implanted in the cervix. Tissue was resected with monopo-
lary energy, intraoperative bleeding was calculated in 200ml. Patient’s
evolution was satisfactory. She was discharged 24 hours after proce-
dure. Normal levels of β-hCG were reported two weeks later.

Results: Successful resectoscopic treatment of ectopic pregnancy.

Conclusions: Hysteroscopic treatment of cervical ectopic pregnancy
is a safe and efficient technique that has the advantage of a rapid re-
turn to normal levels of β-hCG. Intraoperative bleeding is less than in
D&C treatment.

P0339
LAPAROSCOPIC HYSTEROPEXY FOR UTEROVAGINAL PROLAPSE IN
YOUNG WOMEN & REPRODUCTIVE OUTCOME – EXPERIENCE AT
TERTIARY CARE CENTRE
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Medical Sciences, New Delhi, India

Objectives: Hysteropexy procedure is done for suspension of uterus
to the sacral promontory in young women who want to retain their
uterus. The present study was done to evaluate the efficacy and long
outcome term of laparoscopic hysteropey. Reproductive outcome in
women who were desirous of future fertility is also presented.

Method: An intervention cohort study was conducted at AIIMS, New
Delhi (India). Forty two women presenting with uterovaginal pro-
lapse were recruited from January 2009 to August 2014. Patients
with stage 2 or more prolapse (POP-Q staging system) were selected
for surgery. Laparoscopic hysteropey was done using modified L-
shaped polypropylene mesh and Protack tacker (PROTACK 5mm Au-
tosuture,Tyco Health Care, USA). Other required procedures were
done in same sitting before putting in mesh. Subjective improve-
ments in patients’ symptoms were evaluated according to Interna-
tional Consultation on Incontinence Questionnaire on vaginal symp-
toms (ICIQ-VS) score. Objective assessment was done according to
pelvic examination and POP-Q scale.

Results: Mean age of patients was 27.6±2.8 yr. Seventy percent
(27/42) patients had infertility as associated complaint.Procedure
was completed laparoscopically in all patients. Mean point C was
4.39±1.71 preoperatively and changed to –6.9±1.6 at 3 months fol-
low up. Mean follow up is 31.03±13.9 months. Of women desirous
of fertility, 15/27 (55.5%) have conceived. Significant improvement in
A.R. Guerra-De la Garza Evia1,2, L.F. Garcia-Rodriguez1,3, A. Alobaid

Data is required to make recommendations for delivery after this procedure. However, long-term contraception may be a better option to prevent recurrence. However, long-term conception after mesh hysteropexy, elective cesarean section at term and a stage 1A1 granulosa cell tumor. The median BMI was 28.3 (21.9–39.5). The median tumor size was 14 cm (5–30). The median surgery duration was 76 minutes (51–113) and the mean drop in hemoglobin was 0.55 gm/dl (0–1.5).

Conclusions: We believe that LESS may be a safe and feasible alternative to conventional laparoscopy for patients with adnexal tumors and provides a great cosmetic benefit. The short-term operative outcome evaluated by the operative time and blood loss was satisfactory, however, long-term outcome like hernia formation could not be evaluated.

P0340
LAPAROENDOSCOPIC SINGLE-SITE SURGERY (LESS) FOR ADNEXAL TUMORS: INITIAL EXPERIENCE
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Objectives: The benefits of LESS when compared to conventional laparoscopy include better cosmetic results and possibly less pain and reducing the potential morbidity from using multiple ports. We present our experience with 17 Patients who had LESS for adnexal tumors that include large ovarian cysts (up to 30 cm in diameter). The objective is to assess the feasibility, safety and operative outcome for the management of adnexal masses by LESS.

Method: We performed a retrospective chart review of patients who underwent LESS at our hospital. We analyzed the patient’s age, body mass index (BMI), tumor maximum diameter as measured by ultrasound, operative time, estimated blood loss and the histopathology result. The procedures were done through a 2.5 cm umbilical incision using the open technique. The operation was then done similar to procedures performed using the conventional technique. The specimens were retrieved through the umbilical incision.

Results: All patients had benign ovarian cysts except for one that had a stage 1A1 granulosa cell tumor. The median BMI was 28.3 (21.9–39.5). The median tumor size was 14 cm (5–30). The median surgery time was 76 minutes (51–113) and the mean drop in hemoglobin was 0.55 gm/dl (0–1.5).

Conclusions: We believe that LESS may be a safe and feasible alternative to conventional laparoscopy for patients with adnexal tumors and provides a great cosmetic benefit. The short-term operative outcome evaluated by the operative time and blood loss was satisfactory, however, long-term outcome like hernia formation could not be evaluated.

P0341
A COMPARISON OF THE USE OF ADVANCED ENERGY DEVICES IN LAPAROSCOPIC HYSTERECTOMIES: ADVANCED BIPOLAR COAGULATION VERSUS ULTRASONIC VIBRATION
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Objectives: The main objective of this study is to compare and analyze differences between the use of advanced bipolar coagulation and ultrasonic vibration energies in laparoscopic hysterectomies regarding the following variables: surgical time, hospitalization length, trans-operative bleeding, post-operative pain, laparotomy-conversion, post-operative fever and complications.

Method: A retrospective cohort study was conducted in 165 women who underwent laparoscopic hysterectomies between 2009 and 2014 in 2 private hospitals belonging to the TECSalud health system in northeastern Mexico. 90 women underwent laparoscopic hysterectomy using Gyrus PlasmaKinetic coagulation and 65 with Harmonic scalpel. Continuous variables were expressed as means and standard deviations (SD) or medians and interquartile ranges (IQR), upon distribution. Statistical analysis to determine significant differences between the arithmetic means of both groups was done with a t-test for two samples and binary variables were analyzed with the two-proportion test regardless of distribution, following the central limit theorem.

Results: Population characteristics where as follows: median age of 45 years (41–49 IQR), median body mass index (BMI) of 25.7 (22.08–29 IQR), median parity of 3 (2–4 IQR); Previous surgical history presented at a median 2 interventions (1–3 IQR). Surgical time was a mean 153.8 and 139.2 minutes (SD: 43 vs. 35.2) for the Gyrus PlasmaKinetic™ coagulation and the Harmonic® scalpel use, respectively; a statistical significant difference was found between these groups (p=0.019, CI 95% [24.7, 26.74]). No statistic evidence found a difference between the two energies used and hospitalization length, trans-operative bleeding, post-operative pain, laparotomy-conversion, post-operative fever or complications.

Conclusions: A statistical significant difference in surgical time was found in laparoscopic hysterectomies where either Gyrus Plasmakinetic coagulation or the Harmonic scalpel was used. No evidence of statistical significant differences in the other variables included in this study was found. Albeit surgical time is surgeon-dependent and learning curves where not the focus of this particular study, further randomized controlled studies are warranted to study differences and benefits of different energies used in endoscopic surgery.

P0342
DOES ESSURE™ TUBAL OCCLUSION AFFECT THE MENSTRUAL CYCLE?
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Objectives: To evaluate the interference of the Essure™ device on the menstrual cycle (menstrual flow and dysmenorrhea).

Method: We included 131 patients at Disciplina de Cinegologia do Departamento de Obstetricia e Ginecologia, Hospital das Clinicas, Faculdade de Medicina da Universidade de São Paulo after three months of ESSURE™ insertion for interview. We applied a questionnaire on the menstrual flow and dysmenorrhea. The device position was checked by ultrasound in the same time. All selected patients had regular menstrual cycle before the insertion of ESSURE™.

Results: Our data of the interview showed that 63.8% patients did not have any change in pain during the menstrual flow, but 21.5% and 14.6% patients reported a slight increase and decrease, respectively. In relation to menstrual flow, 53.4%, 32.8% and 13.7% of women referred normal regular cycle, an increase and a decrease in menstrual flow, respectively.

Conclusions: Essure™ may influence the pain and flow of menstrual cycle of some patients. Further study is necessary to evaluate the reason for these menses changes.
P0343
OUTCOMES OF CYNAEOCOLOGICAL LAPAROSCOPIC PROCEDURES AT MISURATA TEACHING HOSPITALS, LIBYA

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Objectives: To determine the indications and describe the complications of gynaecological laparoscopic procedures at both Misurata Central Hospital and Misurata Cancer Centre.

Method: A prospective controlled study included all data on indications and complications of laparoscopic procedures performed over a period of two years at both centres were recorded and analyzed, any unexpected or unplanned event requiring intra-operative or post-operative intervention was defined as a complication.

Complications were classified into approach & technique related, rates were compared with those already published. Statistical analysis using SPSS package. P-value considered to be significant if (<0.05).

Results: Study included 286 patients: 210 (73.42%) women underwent diagnostic laparoscopy combined with hysterectomy and ovarian drilling for infertility work up, laparoscopic assisted vaginal hysterectomy: 32 (11.18%), ovarian cystectomy: 21 (7.34%), bilateral tubal ligation: 16 (5.59%), myomectomy: 3 (1.04%), subtotal hysterectomy: 2 (0.69%), coil removal: 2 (0.69%). 17 encountered complications (5.94%), one death because of pneumonia. Laparotomy performed in 8 patients because of haemorrhage & intestinal injury. Histopathological report for one patient underwent myomectomy showed leiomyosarcoma necessitating laparotomy and radical hysterectomy. Overall complication rate for diagnostic laparoscopy was 2.1% & 3.8% for operative laparoscopy. Complications during assisted hysterectomy and in those with previous laparotomy were highly significant (P<0.021).

Conclusions: The advantages of laparoscopic surgery make it superior for both surgeons & patients. Most complications occurred during operative rather than diagnostic procedures. Laparoscopic hysterectomy, myomectomy with morcellation or those with previous laparotomy are particularly at higher risk. Proper patient selection and good training programmes are required to reduce the adverse outcomes.

Gynecological Malignancies

P0344
SURVIVAL ANALYSIS OF REVISED 2013 FIGO STAGING CLASSIFICATION OF EPITHELIAL OVARIAN CANCER AND COMPARISON WITH PREVIOUS FIGO STAGING CLASSIFICATION

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Objectives: To analyze the prognostic role of revised version of FIGO stage (2013) in epithelial ovarian cancer (EOC) and compare with previous version staging classification.

Method: We retrospectively enrolled patients with epithelial ovarian cancer treated at Samsung Medical Center from 2002 to 2012. We reclassified the patients based on the revised FIGO staging classification.

Results: 878 patients were enrolled. Previous stage IC (98, 11.1%) was subdivided into IC1 (9, 1.0%), IC2 (57, 6.4%), and IC3 (32, 4.1%). In addition, previous stage IV (94, 1.7%) was categorized into IVA (37, 4.2%) and IVB (57, 6.5%). Stage IC (66, 7.5%) has been eliminated and integrated into II A (36, 4.1%) and II B (55, 6.2%). Revised FIGO stage IC3 had significant prognostic impact on PFS (HR=3.840, 95% CI: 1.361–10.83, p=0.011) and revised FIGO stage IIIC appears to be an independent, significant poor prognostic factor for PFS (HR=2.541, 95% CI: 1.242–5.200, p=0.011).

Conclusions: Revised FIGO stage has more progressed utility for informing prognosis than previous version, especially in stage I and III. For stage II and IV, further validation should be needed in large population based study in the future.

P0345
RISK OF MALIGNANCY INDEX IN THE PREOPERATIVE EVALUATION OF PATIENTS WITH ADNEAL MASSES

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Objectives: This retrospective study was conducted to determine the accuracy of Risk of Malignancy Index in distinguishing benign adnexal masses and Epithelial Ovarian Cancer. Subsequently, it also aimed to determine the accuracy of Risk of Malignancy Index (RMI) among Filipino women age 21 to 75 years old admitted in our institution and also, to compare the accuracy of Risk Malignancy Index, serum CA-125 level, and Sassone score in women with adnexal masses in predicting ovarian malignancy.

Method: Patients included were between 21 and 75 years old and was subclassified into reproductive age (less than 40 years old) and menopausal group (> 50 years old) who presented with adnexal mass with a serum CA-125 level result and abnormal ultrasound findings. Information was gathered from gynecologic history, ultrasound results and levels of serum CA-125 from the medical records section. Sample size calculated based on the assumption that reported incidence rate of ovarian malignancy in postmenopausal women is 23.7 percent with a reliability of 80 percent and maximum allowable error of 5 percent. Hence, the calculated sample size is 121.

Results: A total of 121 patients with adnexal masses underwent surgery from October 2009 to December 2013 showed a higher incidence rate of ovarian malignancy in nulligravid women 41 to 60 years old. RMI of ≥200 had 48.10% sensitivity, specificity of 67.20% and accuracy of 58.70%, Sassone score had an accuracy rate of 75% in predicting ovarian malignancy and serum CA-125 had 67.6%. However, based on area under receiver operating characteristics (ROC), a cutoff value of ≥273 of RMI showed significant increase in sensitivity to 70%, higher specificity of 80.80% and increased accuracy rate of 65.80%.

Conclusions: Risk of Malignancy Index (RMI) have shown that, a combination of serum CA-125 ≥60 mIU/ml + Sassone score ≥10 + menopausal status that will have a result of ≥273 RMI has an accuracy rate of 94.92% in predicting ovarian malignancy. This may be of importance in more selective referral of patients to gynecologic oncologists for optimization of treatment and proper staging in patients with ovarian malignancy. A cutoff value of ≥60 mIU/ml of serum CA-125 can also be suggestive of malignancy because this value often decreases the chance of having a benign pathology.

P0346
CLINICAL IMPACT OF LYMPHADENECTOMY & NUMBER OF RETRIEVED NODES IN EPITHELIAL OVARIAN CANCER

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Objectives: To investigate the diagnostic and therapeutic effect of pelvic lymphadenectomy (PLA) according to the number of the retrieved nodes in epithelial ovarian cancer (EOC).

Method: Data were obtained from the patients who were surgically treated for newly diagnosed EOC from 2002 to 2014. According to the number of retrieved pelvic nodes, patients were divided into three groups: (no-PLA (A), group B (1–5), and group C (> 5). Survival outcomes were evaluated.

Results: Of 111 patients identified, 48 were in early stage and 63 in
advanced stage. PLA was performed in 71.2%, and the mean number of retrieved pelvic nodes was 4.9 (0–25). Between the two groups of B (n=40) and C (n=37), there was no difference in the rate of pelvic nodes metastasis (22.5% in group A and 24.3% in group B, p=0.85). In multivariate analysis, nodes number was not a significant risk factor for both recurrence and death while the histology (serous type) and residual mass were the most important factors associated with disease free survival and overall survival.

Conclusions: Pelvic nodes sampling (less than 5 of retrieved nodes) may have a similar diagnostic and therapeutic value compared to a thorough PLA in EOC. Careful targeting of node in PLA is more plausible than an attempt to remove lymph nodes as much as possible in terms of similar survival gain and low complication.

**P0347**

**DISCORDANCE OF HISTOPATHOLOGIC DIAGNOSIS BETWEEN COLPOSCOPY-GUIDED BIOPSY AND CONIZATION IN HIGH-GRADE CERVICAL INTRAEPITHELIAL LESIONS**

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**Objectives:** To evaluate the discordance rate of pathologic diagnosis between colposcopy-guided biopsy and conization in patients with high-grade cervical intraepithelial neoplasia (CIN).

**Method:** Patients diagnosed as CIN2 or 3 on colposcopy-guided biopsy from 2006 to 2013 were retrospectively identified. The concordance of pathologic diagnosis was assessed by reviewing the result of the following conization, and cases without conization were excluded from the analysis. Clinico-pathologic data were collected including status of HPV infection and viral load.

**Results:** A total of 385 patients were identified. The concordance between biopsy and conization was observed in less than half of the cases (43.9%). In conization pathology compared to biopsy, downgrade of CIN severity was observed in 27.3% and 28.8%, respectively. If downgrade to CIN1 or less was considered regression, the rate of natural regression of high-grade CIN was 16.8% in a month after biopsy. The initial viral load of high-risk HPV was significantly associated with the pathologic discordance (p=.023) that a high level of viral load was a predictor for pathologic worsening of CIN (OR=1.646).

**Conclusions:** There is a high discordance rate between the high-grade CIN diagnosed with colposcopy-directed biopsy and the pathology from the following cervical conization, which is vital for recent clinical studies designed for high-grade CIN without surgical management of conization. The initial viral load of high-risk HPV might be helpful to predict the pathologic difference, but large cohort studies are needed to verify this.

**P0348**

**REVIEW OF GESTATIONAL TROPHOBLASTIC DISEASES IN A TEACHING HOSPITAL IN NIGERIA**

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**Objectives:** This study was carried out to determine the incidence of gestational trophoblastic disease, the clinical features and management outcome at the Aminu Kano Teaching Hospital, Kano, Nigeria.

**Method:** This was a retrospective study of the demographic and clinical data as well as management outcome of all the patients with gestational trophoblastic disease managed between January, 2008 and December, 2012 at the Aminu Kano Teaching Hospital, Kano, Nigeria.

**Results:** 103 cases of GTD, 22,680 deliveries; incidence of GTD 4.5 per 1000 deliveries. 69 (67.0%) were hydatidiform mole, Choriocarcinoma 34 (33.0%), Antecedent pregnancy among cases of choriocarcinoma: hydatidiform mole 18 (52.9%), miscarriage 10 (29.4%) ectopic pregnancy 1 (3.0%) term pregnancy 5 (14.7%). GTD commoner at the extremes of reproductive age. Hydatidiform mole high 37 (53.6%) in those aged 24 years and below, choriocarcinoma high 13 (38.2%) 45–49 years age. Commonest presenting symptom vaginal bleeding. Anaemia commonest complication. Suction evacuation mode of treatment in all cases of molar pregnancy. All patients with choriocarcinoma had chemotherapy. Seven maternal deaths, case fatality 6.8%.

**Conclusions:** The incidence of GTD in this study was 4.5 per 1000 deliveries. Vaginal bleeding was the commonest presenting symptom. Early diagnosis and appropriate treatment of this disease has an excellent prognosis, while late presentation was associated with high maternal mortality as found in this study.
with different sizes in 2 cases and an ovarian tumor in one case. Histopathology showed: fibrous gonads in 4 cases, a bilateral gonadoblastoma in 2 cases and a dysgerminoma associated to a gonadoblastoma in 1 case.

**Conclusions:** The presence of Y chromosome in the karyotype of a patient presenting a gonadal dysgenesis must lead to prophylactic bilateral gonadectomy in order to avoid a malignant transformation. Gonadectomy must be followed by a hormone replacement therapy. A screening of similar cases in sisters is imperative.

**P0351**

**RISK OF MALIGNANCY IN VULVAR LESIONS IN TERTIARY LEVEL HOSPITAL**

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**Objectives:** To determine the pattern of vulvar lesions and to find out the frequency of malignancy in these lesions.

**Method:** All the women admitted with different vulvar lesions during the study period, were included in the study. Women were admitted for having some surgical procedure either therapeutic or diagnostic or both.

**Results:** A total of 68 women were admitted with vulvar lesion during the study period. Out of these, 32 women had Bartholin gland cyst/abscess, 15 had vulvar warts, 5 women had chronic vulvar Itch, 6 women had lichen sclerosis, 4 had benign vulvar growth and 6 cases were found to have malignant vulvar lesions. The frequency of malignancy was found to be 8.82%. Most of the malignant cases were seen after the age of 60.

**Conclusions:** Although vulvar cancer is an uncommon malignancy but its incidence is on the rise. In most of the cases diagnosis delayed either because of late presentation or because of improper treatment. Therefore any health care provider evaluating a vulvar lesion, should have a core knowledge and information needed to manage these lesions and to identify those, needing biopsy and referral.

**P0352**

**PATTERN AND PREDICTIVE FACTORS FOR CERVICAL CYTOLOGICAL ABNORMALITIES AMONG HIV-POSITIVE WOMEN IN NNEWI, SOUTHEAST NIGERIA**

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**Objectives:** To study the pattern of, and predictive factors for cervical cytological abnormalities among HIV- positive women in Nnewi, Southeast Nigeria.

**Method:** The Pap smears of 110 HIV-positive women attending the adult HIV clinic at the hospital were evaluated for cytological abnormalities using the Bethesda system of classification. Data on sociodemographic factors and other likely predictive factors were obtained with the aid of semi structured questionnaires. Epi info statistical package was used to analyze the data and multiple logistic regression models were employed to determine the predictive factors for cytological abnormalities.

**Results:** The prevalence of cervical cytological abnormalities was 28.2% (n=31). This comprises Atypical squamous cells of undetermined significance (ASCUS) 56.1%; Low grade squamous intraepithelial lesion (LSIL) 22.2%, and High grade squamous intraepithelial lesion (HSIL) 22.2%. Abnormalities was significantly higher among women aged 25-29 years (p=0.05), traders (p=0.03) and the Anglicans (p=0.04). Significant predictors of abnormal cervical cytology included CD4 count less than 300 (OR=0.03), age less than 30 years (OR=0.26), duration of illness of less than 5 years (OR=0.34) and the use of Highly Antiretroviral therapy (HAART) for less than 5 years (OR=0.09).

**Conclusions:** The prevalence of cervical cytological abnormalities among the HIV positive women in Nnewi was very high and constitutes mainly of ASCUS. Women with CD4 count less than 300 cells/ml and those who had used HAART for less than 5 years were especially at risk. We recommend that screening for cervical cancer should be integrated into the existing HIV program in the area especially for the at-risk group.

**P0353**

**CHARACTERISTICS OF PATIENTS WITH OVARIAN TUMOR AT THREE ADDIS ABEBA TEACHING HOSPITALS**

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**Objectives:** To describe sociodemographic characteristics, clinical & histopathologic profile of patients with ovarian tumor.

**Method:** A three year retrospective descriptive cross-sectional study conducted on patients operated at three Addis Abeba University teaching hospitals from January 1, 2007 to December 31, 2009.

**Results:** A total of 2926 cases of major gynecologic operations done out of which 394 (13.5%) were done for ovarian tumor. Majority of the patients (55.5%) were between 20–45 years of age & 39.8% were above 45 years of age. Abdominal distension reported by 54.9% of patients. Majority of patients with malignant disease had advanced stage disease; 62.9% were FIGO stage III & IV. Epithelial histologic type is the most common accounting for 64.3% of all cases followed by germ cell.

**Conclusions:** Ovarian tumor is a common gynecologic problem which was seen in both reproductive age group & post menopausal women. Abdominal distension was the most common symptom and majority of malignant disease were at advanced stage.

**P0354**

**A SERIES OF MISSING PRIMARIES: PULMONARY METASTASIS IN GESTATIONAL TROPHOBLASTIC NEOPLASIA IN THE ABSENCE OF UTERINE TUMORS**

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**Objectives:** Choriocarcinoma is a highly aggressive tumor due to the rich vascularity and affinity of trophoblasts for blood vessels. Although its most frequent site of metastasis is the lung, gestational choriocarcinoma very rarely presents as a pulmonary mass in the absence of a primary uterine tumor. This paper presents a series of three patients with choriocarcinoma who consulted primarily for evaluation of abnormal clinical and radiological chest findings. Emphasis is placed on the value of an accurate clinical history and physical examination, coupled with basic laboratory tests as key determinants for the successful outcome of these patients.

**Method:** This is a case series of metastatic gestational choriocarcinoma in the absence of a primary tumor in the uterus. Their clinical courses are briefly described, as well as the outcomes of each of these cases, after each patient undertook a varied treatment plan.

**Results:** This is a series describing three cases and the clinical courses of patients with metastatic gestational trophoblastic neoplasia in the absence of a primary tumor. The first case underwent chemotherapy with pelvic and pulmonary surgery but eventually succumbed to the disease. The second case was treated with pelvic surgery, and chemotherapy. This patient is now in remission. The third case was treated conservatively by chemotherapy alone. She achieved remission after chemotherapy and has remained disease free.

**Conclusions:** It is imperative for any clinician to have a high index of suspicion to appropriately diagnose and treat patients with choriocarcinoma. A thorough analysis of the clinical presentation coupled with the use of the appropriate laboratory and diagnostic examina-
tions will lead to early diagnosis and treatment of this neoplasm. Var-
ied forms of treatment options are available. Based on sound judg-
ment, the clinician must decide which of these will best attain treat-
ment goals.

P0355
THE ROLE OF THE METFORMIN SUPPRESSING ENDOMETRIAL CANCER IN VITRO
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Objectives: 1. To investigate the effect of metformin in inhibiting proliferation of endometrial cancer cell lines (Ishikawa and ECC1) in a dose dependent manner.
2. To understand the mechanism of metformin inhibiting proliferation in endometrial cancer.

Method: Ishikawa and ECC-1 endometrial cancer cell lines were used for this study. Endometrial cancer cell lines were exposed to different doses of metformin of (0.5mmol/l, 1mmol/l, 5mmol/l, 10mmol/l, 15mmol/l, 20mmol/l, 25mmol/l, 30mmol/l) for 72 hrs and the inhibition rate were detected using MTT assay. Western immune blotting was performed to detect GRP78 expression in endometrial cancer cell lines after exposure of metformin in the different doses. Flow cytometry is used to evaluate the apoptosis induced by metformin in doses for 72 hours.

Results: 1. Metformin inhibited proliferation of endometrial cancer cell lines in a dose dependent manner where IC50 of Ishikawa and ECC1 were (5.25±0.54)mmol/l and (3.28±0.23)mmol/l, respectively. 2. The GRP78 expression among the groups of Ishikawa and ECC1 were different and were statistically significant (F=675.254, P=0.000, F=356.521, P=0.000), respectively.
3. Cell apoptosis rate for Ishikawa and ECC1 treated with different doses of metformin and found higher in ECC1 cell than in Ishikawa cell.

Conclusions: 1. Metformin inhibits proliferation of both endometrial cancer cell lines in a dose dependent manner.
2. The mechanism for metformin inhibiting proliferation in endome-
trial cancer was associated with down-regulation of GRP78 expres-
sion and induction of apoptosis.

P0356
TWO CASES OF PRIMARY OVARIAN NEUROBLASTOMA ARISING FROM MATURE CYSTIC TERATOMA
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Objectives: It is common knowledge that malignant change occurs in 0.3–4.8% of mature cystic teratoma of the ovary. A variety of ma-
ignant tumors have been reported, but neuroblastoma arising from mature cystic teratoma is extremely rare.

Case reports: Case 1. A 22-years old Japanese woman had from first to third lumbar paravertebral tumor and bilateral ovarian tumor. Th6, L1, L2, right ilium, left femur, right rib metastases and bone mar-
row metastases were found still more. We performed left salpingo-
oophorectomy. Microscopically, neuroblastoma and mature cystic teratoma were connected each other in her left ovary. We started chemotherapy triweekly, combination of etoposide (100mg/m², day 1–5) and cisplatin (20mg/m², day 1–5). The residual tumors disappeared after 6 courses treatment. To date, no relapse had been ob-
served with a 13-year follow-up.
Case 2. A 25-years old Japanese woman who had received a kidney transplant for hypoplastic kidney was diagnosed 120×115×125mm ovarian tumor. Right salpingo-oophorectomy was performed. The pathology report indicated neuroblastoma arising from mature cystic teratoma. We diagnosed FIGO stage 1(b) because of intraoperative rapture. Therefore we done adjuvant chemotherapy, using etoposide and cisplatin. Dose reductions were necessary for protect the renal function. She remained in good health with no evidence of recurrence for 18 months after 6 courses of chemotherapy.

Conclusions: There is only 9 cases of primary ovarian neuroblastoma in the world since 1982. Almost of all neuroblastoma in ovary are very poor prognosis, but we performed intensive treatment of the combination of surgery and chemotherapy and no relapse has occurred in two cases.

P0357
SERUM LDH AND CA-125: MARKERS FOR DIAGNOSIS OF OVARIAN MALIGNANCY
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Objectives: To evaluate the efficacy of serum lactate dehydrogenase and serum CA-125 as bio-markers in ovarian malignancy.

Method: Serum LDH and CA125 were done in all of 141 suspected subjects of ovarian tumour admitted in four tertiary care hospitals for surgical management were followed up upto postoperative tissue diagnosis of live tumor for histopathological correlation. The subjects were divided into Group I: Malignant and Group II: Be-
nign, according to histopathology. The histopathological correlation of serum LDH and CA-125 with its validity tests by calculating sensitiv-
ity, specificity, accuracy, PPV, NPV were evaluated.

Results: Serous and mucinous cystadenoma were commonest benign tumors, 38.9% and 20.4% respectively. 57.1% was serous cystaden-
carcinoma in malignant tumors. The validity of LDH were sensitivity 57.1%, specificity 84.1%, accur-
acy 78.7%, positive predictive values 47.1% and negative predictive values 88.8% for malignancy. And validity of LDH and serum CA-125 level (combined) for malignant ovarian tumor was sensitivity 50.0%, specificity 100.0%, accuracy 90.1%, positive predictive values 100.0% and negative predictive values 89.0%.

Conclusions: It can be concluded that the raised serum LDH level is useful diagnostic marker in pre-operative discrimination of benign and malignant ovarian tumour and concurrent use of LDH and CA-125 can increase diagnostic efficacy of ovarian cancer.

P0358
ROLE OF EARLY SURGICAL INTERVENTION IN CERVICAL CANCER SURVIVAL IN A RESOURCE-LIMITED SETTING
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Objectives: We sought to evaluate the benefit of local surgical con-
tral of cervical cancer (CC) disease with hysterectomy in patients pre-
senting with early stage disease (ED).

Method: A cohort study of CC cases diagnosed in Jos University Teaching Hospital between 2011 and 2013. FIGO staging and biopsy for histologic confirmation was done and categorized into Early (I-IIA) and Advanced disease (IBB-IVB). Baseline hematography and HIV screening were done as routine evaluation protocol in our unit. Pa-
tients with ED were offered Total Abdominal Hysterectomy before referral for adjuvant chemo-radiation (CR). The end-point during fol-
low up was mortality with observations censored after August 31, 2014. The time from diagnosis to mortality was calculated in days and converted to lunar months. Factors associated with mortality were analyzed with STATA version 11.0.

Results: Out of 72 suspected CC, 65 were histologically confirmed and 46 completed follow up with end-point ascertainment. The me-
dian age was 50 years with median parity of 7. Majority (72.3%) pre-
sented with advanced disease (AD). The HIV prevalence in the cohort was 15.1%. Hysterectomy was done in 38.9% (7/18) of patients with early disease (ED) with a mean survival of 21.5 months compare to
8.4 months for non-surgery (P=0.0014). Bivariate logistic regression showed that hysterectomy reduced mortality by 94.3% (OR=0.057; 95% CI: 0.01–0.53); AD and baseline anemia (BA) significantly increased the likelihood of early mortality (OR=8.2, 95% CI: 2.0–33.6 and OR=12.0, 95% CI: 2.3–63.4 respectively).

**Conclusions:** Surgical intervention in ED increased mean survival time in our cohort. This trend suggests the need for early diagnosis and hysterectomy as a means of improving survival for CC in settings with limited treatment facilities.

**P0359**

**INCIDENCE OF GESTATIONAL TROPHOBLASTIC DISEASES (GTD) AT JDWNRH (JIGME Dorji WANGCHUK NATIONAL REFERRAL HOSPITAL) THIMPU, BHUTAN**

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**Objectives:** To study the incidence and prevalence of GTD and its trend among the Bhutanese women.

**Method:** A retrospective study was conducted where medical records were collected from the JDWNRH (Jigme Dorji Wangchuk National Referral Hospital), the only tertiary hospital in the capital city Thimphu. Records including data from maternity ward, surgery records, histopathology records and the data from oncology unit were collected from 2008–2013.

**Results:** A total of 314 GTD cases were detected during the study period from JDWNRH. GTD cases comprised of molar pregnancies (complete and partial), persistent molar pregnancy and choriocarcinoma. Out of which 55 of them received chemotherapy for persistent/invasive or choriocarcinoma at our oncology ward.

**Conclusions:** GTD incidence varies widely throughout the world with Asia being one of the regions where the incidence is reported to be high. In Bhutan too, we have seen an increasing trend. Early diagnosis, treatment and follow up play an important role in preventing morbidity and mortality associated with the disease.

**P0360**

**NEW INSIGHTS ON PATHOGENESIS OF HIGH GRADE PELVIC SEROUS CARCINOMAS**

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**Objectives:** The revised FIGO 2013 staging for carcinomas of the ovary, fallopian tube and peritoneum has introduced a single system for tumours originating at these sites. Advances in histopathology, immunohistochemistry and molecular genetics have led to evidence that the fimbrial end of the Fallopian tube may be the source of origin of High Grade Serous carcinoma of Tubal, Ovarian or Peritoneal (HG-STOP) sites far more commonly than previously thought. We aim to review the theories of pathogenesis of HG-STOP cancers.

**Method:** We reviewed the literature with searches in PubMed containing keywords “fallopian tube cancer”, “high-grade serous carcinomas” and “risk-reducing salpingo-oophorectomy”. Most of the evidence comes from studies in risk-reducing salpingo-oophorectomy specimens in BRCA carriers. We reviewed evidence for the traditional theory of pathogenesis and then analysed the different modern postulated pathways of pathogenesis of high-grade pelvic serous carcinomas.

**Results:** A fundamental step in the evolution and propagation of the tubal origin hypothesis was the development of the SEE–FIM protocol (Sectioning and Extensively Examining the FIMbriated end of fallopian tube). This gave insight into precursor lesions of HG-STOPs, thought to be a continuum of p53 signatures developing on to become serous intra epithelial carcinoma (STIC) and finally invasive high grade serous carcinoma. Invagination of exfoliated fimbrial cells into ovarian stroma, the coelomic hypothesis comprising of müllerian metaplasia and transformation of low-grade to high-grade carcinomas and extra-uterine müllerian epithelium are other theories surrounding the pathogenesis of HG-STOPs.

**Conclusions:** There is convincing evidence to show that HG-STOPs originate from the distal fimbrial end of the fallopian tubes. These high-grade tumours have been proven to develop from specific molecular pathways arising from TP53 mutation, and have specific precursor lesions such as STIC before aggressive transformation into invasive serous carcinoma. Other hypotheses include coelomic and extra-uterine müllerian epithelium theories. This new information has clinical impact on development of new therapy to target and treat specific types of pelvic serous carcinomas, especially with the prospects of exciting new laboratory techniques such as ex-vivo culture of human fallopian tube epithelium.

**P0361**

**CANCER MORTALITY AMONG REPRODUCTIVE AGE WOMEN IN TUNISIA**

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**Objectives:** To identify the main cancers causing death among Tunisian women in reproductive age.

**Method:** A retrospective national RAMOS survey (Reproductive Age Mortality Study). This survey was conducted in 2010 and included all deaths of women aged 15–49 years which occurred in 2008 and were due to cancer. Data collection was based on the verbal autopsy method.

**Results:** In Tunisia, cancer is the leading cause of death among reproductive age women, especially breast cancer. The most exposed women are housewives (64.4%), aged 40–49 years (55.3%), living in urban areas (62.2%), belonging to the middle tercile classification of households (45.4%) and reaching a level of basic education (44.2%).

**Conclusions:** Cancer should receive priority funding of health care for this population in order to improve its diagnosis and treatment, with a special motion for breast cancer.

**P0362**

**ROLE OF NEOADJUVANT CHEMOTHERAPY IN ADVANCED CA OVARY**

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**Objectives:** To study the progress free survival and overall survival of patients with advanced Ca ovary undergoing neo adjuvant chemotherapy (NACT) followed by interval cytoreduction.

**Method:** A retrospective analysis was done. All patients with advanced Ca ovary who underwent NACT followed by Interval cytoreduction in our institution during 2005–2010 (6 years) were included. Following criteria were taken: age, stage, histology and grade, method of tissue diagnosis, type and number of Chemotherapy cycles, findings at interval cytoreduction and complications. Progress free survival was assessed from the case records. Overall survival was assessed with the help of telephonic survey.

**Results:** There were 48 patients. All patients except 2 belonged to stage IIIc. Metastatic workup was by CT scan and tissue diagnosis by ascitic fluid cytology in most. All patients received Carboplatin + Paclitaxel, majority (30) 3 cycles. No macroscopic residual tumour in 25%, in 62.5% >2 cm residual tumour. Optimal debulking done in 73.3%. Median progress free survival was 28 months (95% CI: 10.8–45.2 months) and Median overall survival 34 months (95% CI: 16.94–51.06 months) (Kaplan Meir survival curve). P53 is by radiology, but surgery is too aggressive only for staging and delays chemotherapy.

**Conclusions:** When compared to EORTEC trial where primary debulking had progress free survival of 12 months and overall survival
of 29 months, our study highlights the benefit of NACT. In cases of advanced ovarian malignancy, where optimal debulking is not possible, NACT followed by interval cytoreduction gives better outcomes in terms of progress free survival and overall survival, rather than a difficult primary cytoreduction.

**P0363**

**FINANCIAL ANALYSIS OF ROBOTIC SURGERY CONVERSIONS IN ENDOMETRIAL CANCER**

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**Objectives:** As utilization of the robotic laparoscopy platform expands to an increasing number of surgeons for cases of increasing technical complexity, there is a great need to better understand the factors associated with its high cost. A percentage of surgeries intended to be performed robotically are converted to laparotomy, either for technical reasons, or as a result of surgical injury, or due to physiologic intolerance of the surgery. In this study, we sought to provide surgeons with a description of the costs associated with conversion of a robotic hysterectomy to laparotomy and to further identify where the extra charges occurred.

**Method:** A retrospective analysis of 113 endometrial cancer patients underwent robotic surgery in University Hospitals Case Medical Center between 2008 and 2014 focused on financial records sub-analysis of actual costs. Comparison between charges in patients who underwent successful robotic surgery (R) was made with those who were converted (C). Hospital policy required us to refrain from publishing actual cost data and thus we published data only in relative terms. Data were checked for normal distribution and comparison between means was performed by independent sample t test for parametric data & Mann Whitney U test for non-parametric data.

**Results:** There was a 15% conversion rate in our group (17 out of 113 patients). Total cost from admission to discharge for C was 1.4 fold higher than R (P < 0.019). The largest cost differential came from hospital stay costs (3.0 fold higher; P < 0.001), laboratory testing costs (4.99 fold higher, P < 0.001). Additionally significant differences occurred in pharmacy (2.5 fold higher, P < 0.001) and blood bank costs (7 transfusions versus none). The medical and surgical supply, anesthesia, and operating room costs were comparable for both groups.

**Conclusions:** Robotic surgery conversion to laparotomy is associated with significantly higher overall costs and this further underscores the need for appropriate case selection. As we expand the application of robotic laparoscopy, research should aim to identify predictors of successful robotic surgery to optimize its cost effectiveness.

**P0364**

**HIGH-RESOLUTION ANOSCOPY IN WOMEN WITH CERVICAL NEOPLASIA**

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**Objectives:** To describe high-resolution anoscopy (HRA) findings and compare them with histopathology results.

**Method:** In a cross-sectional, observational study performed between December 2008 and December 2009, women receiving care at a center in Recife, Brazil, after a histopathologic diagnosis of cervical intraepithelial neoplasia or cervical cancer were screened for anal neoplasia by HRA. Patients with anal lesions were divided into groups A (metaplasia and/or human papillomavirus infection) and B (anal intraepithelial neoplasia [AIN]). Patients with squamous cell atypia in group A and all patients in group B underwent histopathologic analysis. Agreement between HRA and histopathology findings was estimated for group B.

**Results:** HRA was done in 324 women, 204 (63.0%) of whom had anal lesions. Overall, 169 cases (82.8%) were classified as group A and 35 (17.2%) as group B. Histopathologic data were obtained for 28 of 35 group B cases. Histopathology was suggestive of AIN in 19 (67.9%), resulting in a k coefficient of 0.45 (95% confidence interval [CI]: 0.26–0.65; P < 0.001). Relative to histopathology, HRA had sensitivity of 57.6% (95% CI: 40.8–72.7%), specificity of 86.1% (95% CI: 75.7–92.5%), positive likelihood ratio of 4.1 (95% CI: 3.1–5.5), negative likelihood ratio of 0.5 (95% CI: 0.4–0.5), and accuracy of 76.5% (95% CI: 67.2–83.8%).

**Conclusions:** HRA findings can be systematized, reducing the subjectivity of interpretation.

**P0365**

**COMPREHENSIVE SURGICAL STAGING IN ENDOMETRIAL CANCER – EXPERIENCE FROM A TERTIARY LEVEL CANCER CENTER IN INDIA**

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**Objectives:** To investigate whether complete surgical staging in women with endometrial cancer provide potential benefits that outweigh unique intra/postoperative risks associated with lymphadenectomy in Indian women.

**Method:** In this prospective observational study from September 2011 to June 2014, all women attending Gynae oncology clinic at Tata Medical Center Kolkata with endometrial carcinoma underwent complete staging surgery. The lymphnode yield, lymphnode metastasis, final stage, correlation to histopathology and also the complications arising from surgery were statistically analysed using multivariate analysis.

**Results:** Total 82 women with were enrolled in the study. Of these 64 underwent primary staging laparotomy, 18 completion surgery. Majority (64%) had endometrioid adenocarcinoma. The average pelvic lymph node yield was 17 and paraaortic 12. 16 women (20%) had positive pelvic nodes and 7 (9%) had positive para-aortics. Three of these women with positive paraaortic nodes had negative pelvic nodes. Major postoperative morbidities were encountered in 36 (40%) women of whom eight has two or more preexisting comorbidities that could have possible influence. Adjuvant therapy was differently tailored in 11 (18%) patients due to positive lymphnode status.

**Conclusions:** Results of our study suggests that there is a role of complete surgical staging for patients with endometrial carcinoma as it definitely provides accurate staging information but adds to the morbidity burden of patients. Future research needs to look into options like sentinel lymph node biopsy which will provide accurate staging information without adding morbidities.

**P0366**

**AUDIT OF CERVICAL CANCER MANAGEMENT AT THE COLONIAL WAR MEMORIAL HOSPITAL – JANUARY 1st 2010–DECEMBER 31st, 2013**

N. Sikiti, Fiji National University, Suva, Fiji

**Objectives:** 1. To identify stages of cervical cancer at presentation on those women diagnosed from 2010 to 2012. 2. To assess the timeliness of the treatment (ideally within one month of diagnosis. 3. To assess the appropriateness of the treatment given in comparison to the standard management (FIGO).

**Method:** A retrospective review of case notes on those women diag-
P0368 INVASIVE CERVICAL CANCERS AMONG KENYAN WOMEN: HPV TYPE DISTRIBUTION AND IMPLICATIONS FOR CHOICE OF HPV VACCINE

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Objectives: To determine the HPV types that causes cervical cancer in Western Kenya and to compare to those in Indiana, USA.

Method: DNA was extracted from cervical cancer specimens and PCR performed to amplify a portion of the HPV L1 gene.

Results: Amplifiable DNA was extracted from 50 of 51 (98.0%) specimens from the U.S. and 178 of 187 (95.2%) specimens from Kenya. HR-HPV types were detected in 46 of 46 (100%) specimens from the U.S. and 145 of 146 (99.3%) cancers from Kenya (not significant). Non-oncogenic HPV types were detected in 0 of 46 (0.0%) cancers from the U.S. and 3 of 146 (2.1%) cancers from Kenya (not significant). HPV 16/18 were identified in 93.5% of cancers from the U.S. and 93.8% of cancers from Kenya.

Conclusions: HPV 16 and HPV 18 were the most frequently detected types in cancers from the U.S. and Kenya. Few non-HPV 16/18 oncogenic types were identified, in contrast to a previous study of cervical cancers in women living in Botswana. Current HPV vaccines protect against infection and disease caused by HPV 16/18, and if utilized, should protect a high percentage of women living in western Kenya against cervical cancer.

P0367 FEMALE GENITAL CANCER IN BASRAH, IRAQ BETWEEN 2005 AND 2009

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Objectives: To determine the incidence of genital cancer among women in Basrah during 2005–2009 in comparison to previous incidence 10 years ago.

Method: Analysis of all new cases of cancer which were diagnosed by histopathologist in Basrah, Iraq during 2005–2009 and registered in the Oncology Center, Cancer Registration Section in the Department of Pathology and Cancer Control Center in Southern Iraq.

Results: The highest incidence rate of genital cancer was observed during 2008. Ovarian tumour was the highest and commonest type of genital tumour (172 cases) followed by cervical cancer (108 cases) and the least determined incidence was the secondaries metastases during the period of study.

Cervical cancer was higher at age group 45–49 years (15/100,000), while both endometrial and ovarian cancers were higher at age group 65–69 years (33/4100,000 and 19/100,000 respectively).

Epithelial tumour composed the largest group of ovarian cancer (116 cases), germ cell tumour accounted for 36 cases while sex cord tumour 15 only.

Conclusions: A remarkable decline can be seen in the incidence of all types of genital tumour during 2005–2009 in comparison with incidence between 1987 and 2000.

P0366 INCIDENCE OF GESTATIONAL TROPHOBLASTIC DISEASE AT THIMPHU, BHUTAN

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Objectives: To study the incidence of GTD in Thimphu, Bhutan.

Method: The medical records of patients who were diagnosed and treated at the only tertiary care hospital (JDWNRH) in Thimphu (capital city), Bhutan in 2014 were evaluated retrospectively.

Results: During the study period there were 4248 deliveries, and GTD was diagnosed in 45 cases. The calculated GTD incidence was 10.5 per 1000 deliveries. Complete mole was seen in 24.4% and partial mole in 75.5% of patients. 11.1% received chemotherapy. No mortality was seen.

Conclusions: The incidence of GTD was 10.5 per 1000 deliveries. Early diagnosis, management and follow up plays a vital role in preventing the morbidity and mortality associated with GTD.

P0369 CARCINOSARCOMA OF THE FALLOPIAN TUBE: A CASE REPORT

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Objectives: Carcinosarcoma of the fallopian tube is extremely rare, accounting for 0.1–0.5% of all gynecological malignancies. We have experienced a case of carcinosarcoma originating in the fallopian tube.

The clinical features, pathologic findings, diagnosis, treatment, and outcome are reviewed.

Case report: A 62-year-old Japanese female (gravida 3, para 2) visited a local clinic complaining of right abdominal pain. After a CT scan, she was referred to us for a pelvic tumor. We found a tubular cystic lesion in the right adnexal area, measuring 38mm. Because tumor markers were negative and CT scans showed no signs of malignancy, we continued close observation. Four months later, when the tumor increased in size and a solid component newly appeared, we performed an exploratory laparotomy with the suspicion of fallopian tube carcinoma.

Results: There were no ascites, and peritoneal washing cytology was negative. Left fallopian tube was dilated to 5cm from ampulla to fimbriae, but the left ovary and right adnexa were normal. There were no other abdominal lesions, including no swelling in the pelvic or paraaortic lymph nodes. We removed the left fallopian tube for temporary examination which revealed undifferentiated carcinoma. We performed total abdominal hysterectomy, bilateral adnexectomy, pelvic lymph node dissection, partial omentectomy, and appendectomy.

Conclusions: Postsurgical pathological diagnosis was carcinosarcoma of the left fallopian tube, stage lc. The patient did not wish for adjuvant therapy, and she is being observed in the out clinic. Carcinosarcoma originating in the fallopian tube is extremely rare, and there still isn’t a consensus for diagnosis or treatment. We have ex-
plored other case reports and reviews in addition to reviewing our case.

**P0371**

**RADICAL TRACHELECTOMIES: SUCCESSES AND FAILURES**

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**Objectives:** The purpose of this study was to assess the results of fertility-sparing treatment for young women with early-stage cervical cancer. Cervical cancer occurs frequently in patients of reproductive age who had not managed to implement the generative function. Due to various socio-economic reasons, women are increasingly delaying the birth of their first child at the age over 30–35 years. Preserving fertility is one of the most important requirements for the treatment of young patients with early stages of cervical cancer.

**Method:** The study included 33 patients with stage IA1–IB1 cervical cancer (FIGO) who underwent organ-preserving surgery (28 patients (85%) – radical abdominal trachelectomy, 8 (15%) – vaginal trachelectomy with laparoscopic pelvic lymph node dissection) in the N.N. Petrov Research Institute of Oncology during the period from 2008 till 2014. Criteria for selection were: desire to preserve fertility, no clinical evidence of infertility, tumor size less than 2 cm, no evidence of spread to pelvic lymphnodes or any distant metastasis. The median age of patients was 34.0±1.02 years (range 22–38). All patients were examined: morphological studies, computed tomography of abdomen, magnetic resonance tomography of pelvis.

**Results:** Postoperative specimens revealed: the median tumor size – 1.5 cm in diameter (0.3–2.2), squamous cell carcinoma – 94%, adenocarcinoma – 6%. Median follow-up – 36 months (9–78). Recurrence rate – 15% (n=5) after 3–11 months: 2 patients – recurrence identified cytologically, in utero-vaginal anastomosis, they underwent radical hysterectomy. Tree died from generalization through 9–16 months after surgery. Evaluation of reproductive function held from 28 patients: 2 – periods never recovered after treatment, 10 – refused the initial desire to have a child, 7 – pregnancy has not occurred, 4 – waiting for 5-year after surgery, 5 (17%) – successfully became pregnant and gave birth.

**Conclusions:** Radical trachelectomy is an effective treatment for organ-initial stages of cervical cancer in young women. Analysis of causes of recurrence indicates that the most important risk factors are tumor size of more than 2 cm deep stromal invasion (10 mm), histologic tumor type, involvement of lymph-vascular space. Obstetric data showed that of those who wish to perform reproductive function only 36% were able to get pregnant and give birth. Results are higher after assisted reproductive technology. Such pregnant women should be supervised by Obstetricians who specialize in miscarriage.

**P0372**

**ROLE OF INTERVENTION FOR PAIN MANAGEMENT IN ADVANCED GYNAECOLOGIC CANCER**

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**Objectives:** Patient with cancer frequently have chronic pain especially in the terminal phases of illness, female genital tract is a significant cause of morbidity and mortality worldwide. Gynaecologic cancers arising from different organs have symptoms and signs depend upon location and progression of the disease.

**Method:** We have treated 24 patients of female genital cancer in advance stage who had persistent pain inspite of all measure (Chemotherapy, Surgery Radiotherapy & Medical treatment for pain) between July 2012 and June 2015. Out of 24 patients, 12 had carcinoma cervix, 8 had ovarian malignancy and 3 had carcinoma vulva. All the patient were referred from different departments (Gynecology, Surgical Oncology and Radiotherapy) Various procedure these case were managed by hypogastric ganglion block (under fluoroscopy) Epidural block and caudal block, neurolysis with alcohol, steroid mixed local analgesia.

**Results:** Out of 24 patients the average VAS score was 6–9 but after pain intervention the VAS score decreased to 2–3. There was no complication & mortality during procedure most of the patient had better quality of life with average pain free interval was 3 month. 2% patients require redo procedure in follow up.

**Conclusions:** Pain is often a very disabling symptom of advanced or recurrent genital cancer (mainly cervical cancer). Approximately 80–90% patient achieve good pain relieve with traditional analgesics along with adjuvant, but some patient are resistant to these drugs so, interventional pain techniques are useful in these patients.

**P0373**

**MAY EZH2 PROTEIN EXPRESSION PREDICT CHEMOTHERAPY RESPONSE IN LOCALLY ADVANCED BREAST CANCER?**

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**Objectives:** To evaluate the expression of EZH2 protein is correlated with the prognosis of patients with locally advanced breast cancer after neoadjuvant chemotherapy.

**Method:** This was a longitudinal study of the retrospective cohort type. Thirty seven breast cancer patients who had received a diagnosis of breast invasive carcinoma and received neoadjuvant chemotherapy with anthracycline agents were selected for this study. between 1993 and 2007. Tissue microarrays were performed for EZH2, ER, PR, HER-2, and Ki-67 using immunohistochemistry.

**Results:** Our analysis revealed no association between responder status and EZH2 protein expression. This protein is negatively correlated with expression of ERs and PRs and positively correlated with Ki-67 expression.

**Conclusions:** Our data suggest that EZH2 protein expression may be not correlated with patient prognosis, but is associated to breast cancer biomarkers.

**P0374**

**SINGLE PHOTON EMISSION COMPUTED TOMOGRAPHY ASSISTED THORACOSCOPIC SENTINEL NODE BIOPSY IN BREAST CANCER**

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**Objectives:** To determine the impact of the use of single photon emission computed tomography fused with CT (SPECT-CT) on thoracoscopic biopsy of sentinel lymph nodes (SLNs) in the internal mammary chain in patients with breast cancer.

**Method:** We performed lymphoscintigraphy-assisted thoracoscopic biopsy of the internal mammary chain SLN in 20 patients with breast cancer. SPECT-CT was also used in 13 of these patients. The SLNs were surgically identified with the aid of a gamma probe.

**Results:** SLNs were identified surgically in 19/20 patients. In the 13 patients in whom SPECT-CT was used, the SLNs were promptly iden-
tified, especially when they were located over an intercostal space. Based in these data, change of staging occurred in three patients (23%).

Conclusions: The use of SPECT-CT improves localization of the SLNs in the internal mammary chain, allowing more accurate planning of each individual’s treatment.

**P0375**

**PATIENT WITH BARTHOLIN’S GLAND NEOPLASM ATTENDED IN THE GENERAL HOSPITAL OF CARAPICUIDA AND TRANSFERRED TO A SPECIALIZED CENTER OF ONCOLOGY: CASE REPORT**

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**Objectives:** The aim of this study is to report a case of a patient with Bartholin’s gland neoplasm.

**Method:** The current study was performed by analyzing the record of a patient who was kept on observation at the Gynecological Surgery Medical Clinic of the General Hospital of Carapicuiba (HGC), and then transferred to follow her treatment at the Brazilian Institute of Cancer Control (IBCC).

**Results:** A 60 year old female patient came to HGC reporting a tumor on the vaginal region associated with pain and tumoral secretion discharge. During physical examination, a soft tissue tumor affecting 1/3 of the vaginal wall and 1/3 of the superior left buttock with mucoide secretion discharge could be detected. Papanicolaou test showed atypical glandular cells of undetermined significance, and cannot exclude high-grade squamous intraepithelial lesion. Referred to the IBCC for further investigation and follow-up. The diagnosis of Bartholin’s gland neoplasm was made. The histological examination revealed adenocarcinoma in vulva mucus producer. Immunohistochemical analysis revealed the presence signet ring cells with CK7 markers, CEA and EMA positive.

**Conclusions:** The differential diagnosis between benign and malignant lesions is the top priority in these cases. A Bartholin’s gland cancer is easily mistaken for a cyst retarding the diagnosis and the correct treatment, knowing that Bartholin’s gland cancer such as Bartholinitis have their clinical manifestation with tumors in the vulva associated with local pain. Due to this, we hope that the case report can contribute to the study of this rare condition of gynecological cancer, elucidating the therapeutic itinerary adopted in the present case.

**P0376**

**VSIG4 AS A POTENTIAL DIAGNOSTIC BIOMARKER FOR OVARIAN CANCER**

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**Objectives:** Ovarian cancer is detected after the disease has distant metastases and this is associated with a poor prognosis. Therefore, early diagnosis of ovarian cancer is very important for overall survival. The protein V-set and Ig domain-containing 4 (VSIG4), a novel B7 family-related macrophage protein that has the capacity to inhibit T-cell activation, has a potential role in cancer. We report the identification of a novel functions of V-set and Ig domain-containing 4 (VSIG4) for the diagnostic tool and prognostic factor of ovarian cancer.

**Method:** In this study, VSIG4 expression in ovarian cancers and benign ovarian tumors was analyzed with tissue and serum. The expression levels of VSIG4 in ovarian cancer tissues (n=22) and benign ovarian tumor tissues (n=4) were examined by RT-PCR. And the expression levels of VSIG4 in the serum of endometrial cancer patients (n=6) and benign ovarian tumor patients (n=6) were detected by ELISA.

**Results:** The expression of VSIG4 in tissues of benign ovarian tumors (n=4) was compared with that of ovarian cancers (n=13). The expression levels of VSIG4 in tissues were higher in ovarian cancers than in benign ovarian tumors (15.2 vs 2.2, P=0.0142). (2) Expression of VSIG4 in serum (ELISA): The expression of VSIG4 in serum of benign ovarian tumors (n=6) was compared with that of ovarian cancers (n=6). The expression levels of VSIG4 in serum were higher in ovarian cancers than in benign ovarian tumors but there were no significant differences (232.7; 95% CI: 193.6–291.2 vs 196.2; 95% CI: 168.3–257.5, P=0.1093).

**Conclusions:** Although VSIG4 in serum of ovarian cancers may not have significant difference due to small sample size, it was prominently expressed in ovarian cancer tissues. That allows us to identify VSIG4 as a potential diagnostic biomarker for ovarian cancer. It also has value as a therapeutic target in ovarian cancer.

**P0377**

**PEROXIREDOXIN 3 AND 5: A POTENTIAL BIOMARKER FOR DIAGNOSIS OF ENDOMETRIAL CANCER**

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**Objectives:** Endometrial cancer is the sixth most common cancer in women worldwide with 320,000 new cases diagnosed in 2012. No tumor markers with high sensitivity and high specificity for endometrial cancer are known at present, although CA-125 is often used in clinical practice. Peroxiredoxins (PRDXs) are antioxidant enzymes that play an important role on cell differentiation, proliferation and apoptosis. In this study, we investigated whether the expression levels of PRDX isoforms were related endometrial cancer.

**Method:** PRDXs consists of six isoforms in mammalian cells. The expression of peroxiredoxin mRNAs was detected by reverse transcribe-polymerase chain reaction in endometrial cancer tissues (n=26) and normal endometrial tissues (n=10). And PRDX members were examined in endometrial cancer and normal endometrium tissue from 35 patients using immunohistochemistry. And we analyzed the correlation between PRDX isoforms which were highly expressed and the clinico-pathological parameters.

**Results:** 1) PRDXs mRNA expression in endometrial cancer and normal endometrial tissue by RT-PCR: All PRDX members were highly expressed in endometrial cancer than in normal endometrium. The expression levels of PRDX1 and PRDX3 were more higher than other PRDXs (P<0.0015, 0.0134). 2) analysis of PRDXs protein expression in immunohistochemistry: PRDX3 (22/33, 66.7%) and PRDX5 (24/35, 68.6%) in endometrial cancer were observed strong cytoplasmic staining. There was no significant association between the expression levels of PRDX3, 5 and prognosis of endometrial cancer.

**Conclusions:** PRDX3 and PRDX5 may not have prognostic significance but they were prominently expressed in endometrial cancer. Therefore PRDX3 and PRDX5 might be useful as novel biomarkers for diagnosis and treatment of endometrial cancer.
P0378
PELVIC INFLAMMATORY DISEASE AND RISK OF INVASIVE OVARIAN CANCER AND BORDERSLINE OVARIAN TUMORS: A POOL ANALYSIS OF 13 CASE-CONTROL STUDIES

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Objectives: Inflammation has been proposed as a biological mechanism involved in the pathogenesis of ovarian cancer. However, only a few studies have investigated the association between pelvic inflammatory disease (PID) and risk of ovarian cancer and the results are inconsistent. The aim of the present study was to investigate the association between a history of PID and risk of epithelial ovarian cancer according to tumor behavior and histology.

Method: We conducted a pooled analysis of 13 case-control studies from the Ovarian Cancer Association Consortium (OCAC), including 9162 women with invasive ovarian cancers, 2354 women with borderline ovarian tumors and 14736 control women. Study-specific odds ratios (OR) for associations between various measures of PID and risk of ovarian cancer were estimated using conditional logistic regression in individual studies and subsequently combined into a pooled odds ratio (pOR) using a random effects model. Associations between time since first PID and number of PID episodes and risk of ovarian cancer were also assessed.

Results: A history of PID was associated with an increased risk of borderline epithelial ovarian tumors (pOR=1.32; 95% CI: 1.10–1.58) compared to never having PID. Moreover, women with two or more episodes of PID had a two-fold increased risk of borderline ovarian tumors (pOR=2.14; 95% CI: 1.08–4.24), whereas no marked association between time since PID and risk of borderline ovarian tumors was observed. The associations between PID and risk of serous and mucinous borderline tumors showed similar trends as observed for borderline ovarian tumors overall. No convincing associations between PID and risk of invasive ovarian cancer were observed.

Conclusions: PID was associated with an increased risk of borderline ovarian tumors, particularly among women with multiple episodes of PID. Conversely, no association between PID and risk of invasive ovarian tumors was observed. These results suggest that inflammation caused by PID may be implicated in the pathogenesis of borderline ovarian tumors.

E421
Conclusions: 1. MTHFR C677T gene polymorphism predisposes to cervical cancer by decreasing serum folate levels, increasing serum homocysteine levels and attending DNA Methylation pattern. 2. This suggested that folate and Methyleneon metabolism pathway genes might have an important protective role in development of cervical cancer.

P0381
MULTIPLEX NESTED PCR IN DETECTION OF HUMAN PAPILLOMAVIRUSES IN CARCINOMA CERVIX

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Objectives: Carcinoma cervix is caused by 15 High Risk genotypes of Human Papillomavirus particularly HPV-16 and -18. The above protocol did not include 13 other High Risk genotypes of HPV, we attempted to design in house Multiplex Nested PCR protocol for simultaneous detection of mucosal HPVs (22 HPVs of which 11 are high risk and 1 intermediate risk genotypes) and typing of HPV-16 and -18 in formalin fixed paraffin embedded tissue samples of squamous cell carcinoma (n=24).

Results: We observed that 75.6% of Squamous cell carcinoma cervix and 80% of CIN1/2 cases were positive for HPV-16/18. Further, HPV-16/18 positivity in cervical scrapes of women diagnosed with HSIL, LSIL, ASCUS and NILM was observed to be 55, 43.5, 50, and 19.7 per cent respectively. The above mention in-house multiplex nested protocol was able to type detect HPV in only 17 CaCx tissue samples of which 3 were HPV16 associated possibly due to formalin induced inhibition of PCR.

Conclusions: It has been observed that even a single round of HPV testing in India may lead to significant reduction in the number of advanced cervical cancer and deaths from it. The our protocol may be further evaluated in detection of HPV in cervical scrapes and biopsy specimen for screening of carcinoma cervix in developing countries as it may prove to be cost effective.

P0382
SYSTEMATIC REVIEW OF PSEUDOANGIOMATOUS STROMAL HYPERPLASIA ON THE BREAST

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Objectives: Pseudoangiomatosus Stromal Hyperplasia (PASH) affects mainly pre menopausal women (62%). The prevalence in the population ranges between 0.4 and 23%. Apparently this is not related to breast cancer. The aim of this study was to review the diagnosis and treatment of PASH.

Method: A systematic review of the MEDLINE and Cochrane databases, covering the 2004 to January 2014 period of time. Inclusion: evaluated diagnosis and treatment of PASH on the breast. Exclusion: a) review studies and b) animal models conducted exclusively for experimentention or cell cultures. Data Collection and Analayis: The keywords used: PASH, breast cancer, radiologic, treatment.

Results: PASH appears as radiological findings or palpable mass. Usually manifests as a single lesion, circumscribed and mobile. The histological changes are similar to those encountered during the luteal phase of the menstrual cycle. Appears mainly in pre menopausal women and may have receptors for estrogen and progesterone in immunohistochemistry. The main differential diagnosis is with angiosarcoma, this shows true vascular anastomoses. The confirmation of the diagnosis is by percutaneous biopsy. The recommendation then is to follow these patients with clinical and radiological evaluation, leaving the surgical treatment for lesions suspicious for malignancy or disagreement between image-cytology-clinical findings.

Conclusions: PASH is a common disease that leads to changes on imaging or palpable breast changes. It can be followed clinically and is not necessary surgical treatment. Tamoxifen is still an option.

P0383
PERFORMANCE OF RISK OF MALIGNANCY INDEX (RMI) AT DISCRIMINATING MALIGNANT TUMORS IN WOMEN WITH ADNEXAL MASSES IN AN ULTRASOUND TRAINING CENTER

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Objectives: In this study, we examine whether the outstanding results obtained and reported by Risk of Malignancy Index (RMI) creators are reproducible in a different set of pre- and postmenopausal Brazilian women with adnexal masses and who underwent a surgical intervention due to these masses. We also examined the factors associated with RMI failure at diagnosing malignant tumors and at ruling out malignancy, such as tumor histological type and stage.

Method: This is an analysis of prospectively collected data on 158 women subjected to surgery due to an adnexal mass from 2010 through 2014. The study was approved by the faculty’s research ethics committee. The women were evaluated before surgery using the four RMI variants. Ultrasonography was performed by physicians sonographers with variable levels of expertise, and enduring a training program. We compared the performance of the four RMI variants using receiver operator curve (ROC) analyses followed by the calculation of sensitivity, specificity, positive and negative likelihood ratios (LR+, LR-) using as gold standard the pathology of the adnexal mass.

Results: Among the 158 women with adnexal masses included in this study, 51 (32%) had malignant tumors, 25 (51%) of them, stage I. All RMI variants performed similarly (accuracy ranging 74–83%), regardless of menopausal status. Considering all women included, the LR+ of the four RMI range from 3.52 to 4.41. In subset analyses, all RMI variants had decreased sensitivity for stage 1 malignant tumors and for those with non-epithelial histology.

Conclusions: The four RMI performed acceptably in a medium-resource setting where ultrasound examiners were physicians sonographers with moderate expertise and/or were under training varied experience. This is due to the good tradeoff between performance and feasibility, since RMI ultrasound protocols are of low complexity. Fapesp: number 2012/15059–8. The authors also thank the Conselho Nacional de Desenvolvimento Científico e Tecnológico (CNPq) for financial support.

P0384
METASTASIS TO THE BREAST FROM ARENAL CLEAR CELL TUMOR: TWO CASE REPORTS AND REVIEW OF THE LITERATURE

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Objectives: The commonest breast malignancy is a primary breast cancer. Rarely, the breast can be a site of metastatic spread and differential diagnosis with primary breast carcinoma may be difficult. In this study, we reviewed the diagnosis of patients with metastasis to the breast from a clear-cell renal-cell carcinoma treated at Instituto do Câncer do Estado de São Paulo - ICESP, identifying two cases
that met the criteria. We evaluated the clinic, pathologic, immunohistochemical and therapies performed, seeking to characterize the histopathological features and clinical behavior distinct from conventional breast carcinomas.

**Method:** 1st Case: An 81-year-old lady, who underwent nephrectomy 11 years ago after diagnosis of clear-cell renal-cell carcinoma, was seen in the breast clinic for a right breast mass. After clinical examination, revealed a metastatic cancer from a renal primary. In the same time was also diagnosed a metastatic lung cancer. 2nd Case: A 33-year-old woman, featuring expansive metastatic lesions in the spine, lung and bone, from a asymptomatic renal-cell cancer. Evolved with fast growing mass in the right breast. Core-needle biopsy revealed a secondary breast lesion originating from a renal-cell carcinoma.

**Results:** Metastatic neoplasms to the breast account for 0.5–6.6% of all malignant mammary tumors in autopsy series. Renal tumors metastasizing to the breast are rare, occurring in only 3% of cases. The metastasis can appear many years after nephrectomy. Palliative chemotherapy or radiotherapy rather than radical surgery may be preferred if the breast lesion is recognized as a metastasis. The prognosis is often poor with a life expectancy rarely exceeding one year. In our series, we opted treatment with chemotherapy and not performing surgical treatment. We conclude that the diagnosis of metastasis to the breast from extramammary tumours is important to avoid unnecessary surgery and ensure proper treatment of the primary disease.

**Conclusions:** Metastatic renal clear cell neoplasms to the breast is rare and can appear many years after nephrectomy. The pathological investigation is the key to making the correct diagnosis.

**P0385**

**OVARIAN DYSGERMINOMA PRESENTING AS SECONDARY AMENORRHEA IN A PATIENT WITH MÜLLERIAN ANOMALY: A CASE REPORT**

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**Objectives:** Dysgerminoma is the most common malignant germ cell tumor. Abdominal pain, abdominal distention, the presence of a palpable mass, nausea, and vomiting as well as ovarian torsion are common symptoms and signs at presentation. Several documented cases of endometrial and cervical carcinoma arising in müllerian anomaly have been described; however, ovarian malignancy occurring in conjunction with uterine dydelphysis has not been reported. Here we report a case of right ovarian dysgerminoma that was found incidentally and misdiagnosed as tubo-ovarian abscess in patient with uterine dydelphysis and right renal agenesis.

**Method:** The medical records of the patient with dysgerminoma with secondary amenorrhea were retrospectively reviewed.

**Results:** A 34-year old woman, gravida 0, para 0, stumbled upon pelvic mass and uterine anomaly for amenorrhea evaluation and referred to our clinic. She started menstruating at 13 years old and amenorrhea was started, 2 years ago. Abdominopelvic CT revealed right ovarian tumor with uterine dydelphysis and right renal agenesis during evaluation of amenorrhea. The ovarian tumor was suspected to tubo-ovarian abscess. She underwent right salpingo-oophorectomy and histology confirmed dysgerminoma with tubo-ovarian abscess in right ovary, endometriosis and acute and chronic inflammation in right oviduct. She will undergo 6 cycles of bleomycin, etoposide and cisplatin chemotherapy for suspected lymphadenopathy.

**Conclusions:** Our case shows that non-specific symptom like secondary amenorrhea for dysgerminoma. Although müllerian anomalies are unlikely to predispose women to ovarian malignancies, it is necessary to remember that women with such anomalies could still have cervical, uterine or even ovarian malignancies. Therefore, it should be included in the differential diagnosis of pelvic mass in such cases.

**P0386**

**ONCOLOGIC OUTCOMES OF STAGE IVB OR RECURRENT OR PERSISTENT CERVICAL CANCER PATIENTS WHO RECEIVED CHEMOTHERAPY IN THAILAND**

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**Objectives:** To determine response rate and survival outcomes of chemotherapeutic treatment for stage IVB, persistent or recurrent cervical carcinoma patients.

**Method:** Medical records of 286 stage IVB or persistent or recurrent cervical carcinoma patients, who received chemotheraphy during January 2006 to December 2013, were retrospective reviewed. Patients' demographic, tumor characteristics, chemotherapeutic agents and response rate were analysis by descriptive statistics. Kaplan-Meier method was used for survival analysis.

**Results:** 47 and 239 patients received chemotherapy for primary and persistent or recurrent of diseases, respectively. The most common histopathology was squamous cell, 169 patients (59.1%). Major of disease sites was both local and metastasis, 111 women (38.8%). Overall response rate was 37.8%, of which complete response was 22.4% and partial response was 15.4%. Stable of disease and progression of disease were 32.2% and 30.1%, respectively. The median progression free survival (PFS) was 5.6 months (range, 0.7–102.2; mean ± SD, 11.3 ± 15.9 months). Overall survival (OS) was range of 0.7–108.3 months which the mean of 19.7±19.5 and the median of 12.3 months.

**Conclusions:** Response rates, median PFS and OS of cervical cancer patients who treated by chemotherapy in Siriraj Hospital was rather high when compared with previous gynecologic oncology group (GOG) studies.

**P0387**

**ACCURACY OF ULTRASOUND SCREENING FOR ENDOMETRIAL ABNORMALITIES**

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**Objectives:** The accuracy of the ultrasound screening for endometrial abnormalities in absence of bleeding is a subject of debate. This applies to Tamoxifen receiving patients as well. The aim of this study was to compare pathology reports in 92 postmenopausal patients who underwent dilation and curetage (D&C) based on the ultrasonographic finding of endometrial hyperplasia in the absence of bleeding. The literature review presents data low with low ultrasound accuracy for endometrial abnormalities, at a range of 1:100 or less for asymptomatic patients.

**Method:** Retrospective case-control study on the Clinics for Gynecology and Obstetrics (Clinical Center of Serbia) was conducted in 2013–2014 and 92 patients were selected. All patients underwent dilation and curettage due to endometrial hyperplasia diagnosed with ultrasound only. Sixty patients were postmenopausal on Tamoxifen treatment for breast cancer and 32 patients were from general population. There was no bleeding registered in any of the patients prior to D&C. The threshold for endometrial thickness was 6 mm for asymptomatic patients from general population, and 4 mm for Tamoxifen receiving patients. No patients were evaluated for endometrial abnormalities before onset of tamoxifen treatment.

**Results:** Mean endometrial thickness was 15.7 mm (range 8–33) in general population patients and 7.8 mm (range 5 to 10 mm) in Tamoxifen group. In general population group endometrial cancer was de-
therapeutic effectiveness of Podophyllotoxin.

Methods: Method: A pilot study of radical hysterectomy without lymphadenectomy in a rural missionary hospital in Ethiopia. Women with presumed cervical cancer were invited to undergo radical hysterectomy without lymphadenectomy. Their hospital costs were met from charitable donations.

Results: Of 19 women with presumed cervical cancer, 13 were deemed suitable for radical hysterectomy, 11 (84%) of whom were clinically stage 2B. Surgery with complete excision of the tumour and a 3 cm vaginal cuff was possible in all cases. In 1 case the ureter was involved and re-implanted. This was the only case with a clinical recurrence at the end of the study, 6 months later.

Conclusions: This small pilot study shows that radical hysterectomy offers the potential for a period of disease free survival, without significant morbidity in an otherwise untreated group of women.

P0389

ANALYSIS CLINICAL FEATURE OF 63 VAIN PATIENTS AND EVALUATE THE EFFECTIVENESS OF PODOPHYLLOTOXIN

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Objectives: To analyze the clinical characteristics of VAIN and discuss the therapeutic effectiveness of Podophyllotoxin.

Method: By the method of retrospective analysis, we collected clinical data of 63 patients who were diagnosed with VAIN in Peking University Shenzhen Hospital from February 2004 to January 2012. The clinical data include the patients’ general health condition, Neoplasia lesions characteristics, Cytology, HPV test results, and the therapeutic effectiveness of Podophyllotoxin. We also take the results of the colposcopy and histopathology into consideration.

Results: The result indicate that the risk of VAIN is higher in older patients, and the difference is statistically significant (P<0.05). It is also found that 87.3% of all patients who were diagnosed as VAIN combined with different grades of cervical lesion. The results show that the risk of VAIN increase greatly with the upgrading of cervical lesion grade, and the difference is significant (P<0.05). In all patients, 58.73% have multifocal distribution feature. Among them 46.03% locate in the upper portion of the vagina and 28.57% locate in the portion of vaginal stump after the operation of whole hysterectomy.

Conclusions: The high-risk age of VAIN is between the age of 36 and 55. With the upper-grading of cervical lesions grade, the incident of VAIN have an increasing trend. Meanwhile, the risk of VAIN is higher in older patients. We also deduce that Cytology and the location of VAIN are related to the grade of VAIN lesions. The therapeutic effectiveness of Podophyllotoxin on the lower-grade VAIN is significantly higher than that of the higher-grade lesions.

P0390

EXPRESSION OF P53, Ki67, WT1 AND BETA CATENIN COMPARING HIGH-GrADE AND LOW-GrADE SEROUS OVARIAN CARCINOMA

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Objectives: To compare p53, Ki67, WT1, β-catenin expression in tissue obtained from women with high-grade and low-grade ovarian serous carcinoma. We also compare the clinical characteristic, disease free survival and overall survival according to histologic type.

Method: The paraffin embedded blocks from 141 women with ovarian serous carcinoma (116 high-grade and 25 low-grade) were included. All women were treated at the ObGyn Department of Campinas State University, Unicamp, from 1993 through 2013 and followed up until December 2014. Clinical, surgical, chemotherapy scheme and follow-up were obtained from the patients files. Tissue microarrays (TMA) were constructed from these paraffin blocks and used for immunoistochemistry (IHC). Qui-square tests were calculated to evaluate the association between clinical, pathological and tumor markers expression. Cox Proportion Hazards were used to assess the disease free survival and overall survival.

Results: Only 15% of the women with high-grade serous carcinoma presented with stage I disease compared to 52% of those with low-grade carcinoma. Among the 94 women with high-grade serous carcinoma stage II-IIIc only 31 (33%) achieved an optimal citorreduction surgery. Among the women with high-grade disease, 93% received platinum-based chemotherapy. Disease progression, relapse rate and deaths were significantly worse in women with high-grade serous carcinomas (p=0.002). P53 and β-catenin expression was significantly higher in women with high-grade serous ovarian carcinoma. (p=0.01 and p=0.004 respectively). There was no difference in the expression of WT1 and Ki67 comparing high-grade and low-grade groups.

Conclusions: High-grade serous ovarian carcinomas were detected in advanced stage, presented higher rates of disease progression and death due to the disease despite the use of platinum-based chemotherapy. Among the studied tumor markers, only P53 and β-catenin expression was significantly higher in women with high-grade serous ovarian carcinoma. This study was partially financed by the Research Support Foundation of the State of São Paulo – Fapesp: number 2012/15059-8. The authors also thank the Conselho Nacional de Desenvolvimento Científico e Tecnológico (CNPq) for financial support.
P0391
A FOLLOW-UP STUDY OF PELVIC LYMPHATIC SYSTEM WITH INTERSTITIAL MAGNETIC RESONANCE LYMPHOGRAPHY IN PATIENTS WITH STAGE IA1 CERVICAL CANCER AFTER CERVICAL CONIZATION

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Objectives: This purpose of this study was to follow up patients with stage la1 cervical cancer who underwent cervical conization using interstitial magnetic resonance (MR) lymphography and to characterize pelvic lymph node metastasis.

Method: We enrolled eight patients who were diagnosed with stage la1 cervical cancer using cervical conization and sought treatment at the department of gynecology, Nanjing Drum Tower Hospital, from January 2008 to January 2011. Interstitial MR lymphography was performed immediately after surgery, six months after surgery, and annually thereafter to observe the lymphatic system in the pelvis and compare lymphography results at different time points to evaluate whether there were any changes in the pelvic lymphatic system.

Results: Of the eight patients, one patient has been followed up for four years and no pelvic lymph node metastasis was noted in all three MR scans; five patients have been followed up for over two years; and one patient has been followed up for 23 months. The lymphatic system in the left pelvis was poorly visualized in one patient six months after surgery; however, it became well visualized six months later. No pelvic lymph node metastasis occurred in the eight patients.

Conclusions: Interstitial MR lymphography proves a valuable follow-up method and provides an excellent tool for assessing the lymphatic system in the pelvis in patients with stage la1 cervical cancer after cervical conization.

P0392
THE ASSOCIATION BETWEEN PERSISTENT CERVICAL LOW-GRADE SQUAMOUS INTRAEPITHELIAL LESIONS AND HUMAN TELOMERASE RNA GENE

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Objectives: To investigate the prognostic value of human telomerase RNA gene (hTERC) for cervical low-grade squamous intraepithelial lesions, and the roles of loop electrosurgical excisional procedure (LEEP) in the treatment of low-grade squamous intraepithelial lesions (LSIL).

Method: A total of 172 patients diagnosed with LSIL by colposcopic biopsy from January 2009 to December 2011 at our hospital were selected. These patients were followed up until December 2014. The expression of hTERC gene was tested. The patients with persistent LSIL were treated with LEEP or non-surgical methods. The patients were followed up for 2 years. Liquid-based ThinPrep cytology test (TCT) and HC2 test were performed. Patients with TCT > atypical squamous cells of undetermined significance (ASCUS) underwent colposcopic biopsy. According to the pathological results, patients with chronic inflammation and negative TCT were assigned into the benign lesion group.

Results: There was significant difference in pathological benign conversion rate and human papillomavirus (HPV) negative conversion rate between the surgical group and the observation group (P < 0.01). The pathological conversion rate was significantly lower in hTERC+ patients than hTERC- patients (P < 0.01). The HPV negative conversion rate was significantly lower in hTERC+ patients than hTERC- patients (P < 0.01). In hTERC+ patients, there was significant difference in pathological conversion rate between the surgical group and the non-surgical group at follow-up of 12 and 24 months (P < 0.01), suggesting that surgery can significantly improve the prognosis of LSIL in hTERC+ patients. In hTERC- patients, there’s difference.

Conclusions: LEEP can significantly decrease HPV load and increase pathological benign conversion rate in LSIL patients. Conservative treatment should be used with caution in hTERC+ patients with LSIL, and the characteristics of multiple cervical intraepithelial neoplasia should also be considered. Colposcopic biopsy is limited in scope and depth, and should be used with cryoscalpel or LEEP to avoid missed diagnosis of high-grade lesions.

P0393
ANALYSIS OF THE CLINICAL FEATURES OF 63 VAIN PATIENTS AND EVALUATION OF THE EFFECTIVENESS OF PODOPHYLLOTOXIN

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Objectives: To analyze the clinical characteristics of VAIN and discuss the therapeutic effectiveness of Podophyllotoxin.

Method: By the method of retrospective analysis, we collected clinical data of 63 patients who were diagnosed with VAIN in Peking University Shenzhen Hospital from February 2004 to January 2012. The clinical data include the patients’ general health condition, Neoplasia lesions characteristics, Cytology, HPV test results, and the therapeutic effectiveness of Podophyllotoxin. We also take the results of the colposcopy and histopathology into consideration.

Results: The result indicates that the risk of VAIN is higher in older patients, and the difference is statistically significant (P < 0.05); It is also found that 87.30% of all patients who were diagnosed as VAIN combine with different grades of cervical lesion. The results show that the risk of VAIN increase greatly with the upgrading of cervical lesion grade, and the difference is significant (P < 0.05). In all patients, 58.73% have multifocal distribution feature. Among them 46.03% locate in the upper portion of the vagina and 28.57% locate in the portion of vaginal stump after the operation of whole hysterectomy.

Conclusions: The high-risk age of VAIN is between the age of 36 and 55. With the upper-grading of cervical lesions grade, the incident of VAIN have an increasing trend. Meanwhile, the risk of VAIN is higher in older patients. We also deduce that Cytology and the location of VAIN are related to the grade of VAIN lesions. The therapeutic effectiveness of Podophyllotoxin on the lower-grade VAIN is significantly higher than that of the higher-grade lesions.

P0294
DIFFERENTIAL EXPRESSION OF MIR-206, MIR-1-3P AND MIR-143-3P IN UTERINE LEIOMYOSARCOMA

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Objectives: To identify microRNAs expression profile related to tumor development in uterine leiomyosarcoma samples.

Method: Formalin-fixed, paraffin-embedded samples from 12 patients (2 myometrium as the reference group, 3 leiomyomas and 7 leiomyosarcomas) were selected from Obstetrics and Gynecology Department from Hospital das Clinicas da Faculdade de Medicina da Universidade de Sao Paulo (Sao Paulo/Brazil). Total RNA was obtained using ReliaPrepTM FFPE Total RNA Miniprep System (Promega). The miScript II RT Kit (Qiagen) was used in order to perform the cDNA synthesis. Real-Time PCR reaction was performed using the miScript miRNA PCR Array (Qiagen) and the miScript SYBR Green PCR Kit (Qiagen) for analysis of 84 miRNA sequences described as human cancer-related genes.

Results: Among 84 miRNA sequences, three microRNAs with up or down regulation were selected for analysis. As preliminary results, has-mir-206 was overexpressed in leiomyosarcoma samples. The literature shows has-mir-206 down-regulated in breast cancer with BRCA1 mutation, hepatocellular carcinoma and lung squamous cell
carcinoma. In our samples, both hsa-miR-1-3p and hsa-miR-143-3p are down-regulated (fold regulation: –12.2037 and –12.3503, respectively), compared to myometrium and leiomyomas. Few articles show that these miRNA are down-regulated and they act as tumor suppressors, repressing cancer cell proliferation, invasion and metastasis and promote apoptosis, suggesting an anti-neoplastic role.

Conclusions: Due to lack of articles in literature, further evaluations are necessary to verify miRNA functions and to investigate their differential expression in uterine leiomyosarcoma and associate it to clinical pathological information of the patient. Moreover, analyzes with a large number of samples are necessary to confirm these findings.

P0395

TGF-β1-INDUCED CK17 ENHANCES CANCER STEM CELL-LIKE PROPERTIES RATHER THAN EMT IN CERVICAL CANCER VIA ERK1/2-E2F4 SIGNAL PATHWAY

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Objectives: Tumor relapse and metastasis are the leading causes of cervical cancer-related mortality. Recently, tumor microenvironment-related cancer stem cells (CSCs) and epithelial-mesenchymal transition (EMT) have been implicated in the relapse and metastasis of cervical cancer, but the underlying molecular mechanisms among them need to be further elucidated. Here, TGF-β1, which is believed to be one of the most important cytokines in HPV infection-related cervical cancer microenvironment, was studied to demonstrate the relationship and regulatory mechanism among tumor microenvironment, CSCs and EMT and to describe its role in preservation of stemness of cervical cancer stem cells (CSCCs).

Method: Oncosphere-forming assay and SP detection were used to elevate the stemness properties in cervical cancer cells. RT-PCR was conducted to examine the miRNA expression of promising markers of CSCCs. The morphological changes associated with EMT were analyzed by phase contrast microscopy, Western blot and immunofluorescence. Wound healing assays and Boyden chamber assays were perform to assess the cellular invasion and migration abilities. The signal transduction pathway was identified by chemical inhibitors, Western blot, siRNAs, dual-luciferase reporter assays as well as truncated mutants analysis. The expression of TGF-β1 and CK17 were examined by immunohistochemical studies in human cervical tissue microarray.

Results: We demonstrated that the level of CK17 mRNA was significantly increased during TGF-β1-induced stemness and EMT in CC cells. Depletion of CK17 attenuated the amount of oncospheres and SP cells without affecting the EMT changes. Moreover, ERK1/2 signal pathway was activated and inhibition of ERK1/2 phosphorylation downregulated TGF-β1-induced CK17 expression. Truncated mutants analysis and dual-luciferase reporter assays showed that E2F4 was responsible for the transactivation of CK17 promoter promoted by TGF-β1. Consistently, the expression of CK17 significantly correlates with the expression of TGF-β1 in CC patients and co-expression of them is a powerful marker in predicting CC metastasis.

Conclusions: The present data indicates a novel and critical signal pathway of TGF-β1-ERK1/2-E2F4-CK17 regulating CSCs-like properties rather than EMT in CC cells, which provides us a promising target and relevant pathway for the treatment of cervical cancer relapse and metastasis.

P0296

INTRATUMORAL LYMPHATIC MICROVESSEL DENSITY (LMVD) AS A NOVEL PROGNOSTIC FACTOR IN ENDOMETRIAL CARCINOMA

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Objectives: To assess the intratumoral lymphatic microvessel density in patients with endometrial carcinoma and investigate its relation to clinicopathological factors and prognosis.

Method: Prospective study that included 60 patients histopathologically proven to have endometrial carcinoma who were subjected to surgery, histopathological examination and immunohistochemistry using an antibody against podoplanin to assess the intratumoral lymphatic microvessel density.

Results: High intratumoral LMVD was associated with endometroid type of tumors, lesser myometrial, adnexal, cervical and peritoneal infiltration, lower tumor grade and stage, lesser lymph node involvement and lesser recurrent cases. No association was seen between LMVD and lymphovascular space invasion. Low intratumoral LMVD was associated with poor outcome.

Conclusions: Our results suggest that high intratumoral lymphatic microvessel density is a novel prognostic factor in endometrial carcinoma and is associated with favourable outcome. However, further studies with larger series are still needed to clarify the biological significance of these findings.

P0397

CONTROVERSIES ON SURGICAL MANAGEMENT OF ENDOMETRIAL CARCINOMA – AN UPDATE

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Objectives: Endometrial Carcinoma is the common women’s malignancy worldwide. The optimal management remains one of the most debated issues in the gynaecologic oncologic discipline as evidence by variety of national & international guidelines. Surgery is the gold standard for the majority of the newly diagnosed patients. There are lot of controversies on the radicality of surgery, role of lymphadenectomy, role of neo adjuvant chemotherapy and pre or post operative radio therapy.

Method: The literature on these issues searched and analyzed critically.

Results:

• Endometrial cancer represents over 96% of the uterine cancers mostly menopause, over the age of 40 in 95% cases premenopausal 14%, under the age of 40 only 5% case reported.
• Diagnostic & metastatic evaluation are important for proper evaluation of patient prior to appropriate treatment option selection.
• Approach to surgical management, best practices include surgical staging, removal of disease, accurate documentation, and decision regarding role of lymphadenectomy, Omentectomy etc are controversial several articles searched and treatment option for early stage disease, fertility sparing surgery, role of robotic and laparoscopic surgery will be discussed.

Conclusions: Surgical approach for advanced endometrial is also controversial. Is there a role for cyto-reductive surgery for advanced stage III & IV endometrial cancer. Does surgical management improve outcome in recurrent disease. Recommendation based on guidelines and best practice evidences will be discussed. Review of literature searched will be presented.
P0398
INHIBITORY EFFECT OF SNAKE VENOM TOXIN ON NF-κB ACTIVITY PREVENTS HUMAN CERVICAL CANCER CELL GROWTH VIA INCREASE OF DEATH RECEPTOR 3 AND 5 EXPRESSION

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Objectives: We previously found that snake venom toxin inhibits nuclear factor kappa B (NF-κB) activity in several cancer cells. NF-κB is implicated in cancer cell growth and chemoresistance. In our present study, we investigated whether snake venom toxin (SVT) inhibits NF-κB, thereby preventing human cervical cancer cell growth (Ca Ski and C33A). SVT (0–12 μg/ml) inhibited the growth of cervical cancer cells by the induction of apoptotic cell death.

Method: To determine the effect of snake venom toxin from Viper a lebetina turanica on the cervical cancer cells, apoptosis is analyzed by tunnel assay and apoptotic gene expression.

Results: These inhibitory effects were associated with the inhibition of NF-κB activity. However, SVT dose dependently increased the expression of death receptors (DRs): DR3, DR5 and DR downstream pro-apoptotic proteins. Exploration of NF-κB inhibitor (Phenylarsine oxide, 0.1 μM) synergistically further increased SVT-induced DR3 and DR5 expressions accompanied with further inhibition of cancer cells growth. Moreover, deletion of DR3 and DR5 by small interfering RNA significantly abolished SVT-induced cell growth inhibitory effects, as well as NF-κB inactivation. In vivo study also showed that SVT (0.5 and 1 mg/kg) inhibited tumor growth accompanied with inactivation of NF-κB.

Conclusions: Thus, our present study indicates that SVT could be applicable as an anticancer agent for cervical cancer, or as an adjuvant agent for chemoresistant cancer cells.

P0399
SECONDARY CYTOREDUCTION AND POST-OPTERATIVE SECOND LINE CHEMOTHERAPY WITH GEMCITABINE & CISPLATIN IN RECURRENT EPITHELIAL OVARIAN CANCER

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Objectives: The role of secondary cytoreduction in recurrent epithelial ovarian cancer is not clearly defined. This study was designed to evaluate the efficacy of secondary cytoreduction and post operative 2nd line chemotherapy with gemcitabine and cisplatin in recurrent ovarian cancer.

Method: Patients who had undergone primary cytoreductive surgery, had received chemotherapy and showed a complete response but have developed subsequent recurrence were included. Evidence of measurable disease on imaging study was required. Abdomen was opened with a vertical incision, ascitic fluid/ washings were removed, maximal cytoreduction was done to resect the tumor to <1 cm diameter. All patients were given gemcitabine 1250 mg/m² on day 1 and 8 and cisplatin 70 mg/m² on day 1 only. Cycles were repeated every three weeks. RECIST was used for response evaluation.

Results: 108 patients were enrolled from Dec 1998–Dec 2013. Median age was 52 years. 72 patients had received cyclophosphamide and cisplatin while 36 had received paclitaxel and cisplatin. The DFI >6 months in 76 patients and <6 months in 32. Optimal cytoreduction was achieved in 42 (38.8%) patients. Among 42 patients with optimal cytoreduction, 20 had a CR while 22 showed a PR. Patients with sub-optimal surgery CR was in 14 patients, PR in 20 and NR in 32. DFI >6 months in patients showing CR. 32 patients are alive at median follow up of 16 months.

Conclusions: Secondary cytoreduction and postoperative second line chemotherapy with gemcitabine and cisplatin is a reasonable treatment option for patients with recurrent epithelial ovarian cancer who present after a disease free interval of more than 6 months. This is an ongoing study.

P0400
PATTERN OF GYNAECOLOGICAL MALIGNANCIES AT A TERTIARY CARE HOSPITAL

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Objectives: To assess frequency, risk factor assessment, clinical & histopathological presentation of different types of gynaecological cancers, in seeking care at our tertiary care centre. Estimation of cancer burden is valuable in devising public health priorities. Due to absence of accurate population and health statistics in Pakistan, it is not possible to reliably calculate incidence of various cancers, so we rely on frequencies in hospital as a measure of incidence. In 2011, 20,000 women in UK were diagnosed with gynecological malignancy. Endometrial cancer is fourth most common, incidence has increased significantly (over 23%) while ovarian cancer has reduced by 10%.

Method: Descriptive study; conducted at the department of obstetrics and gynaecology liaquat national hospital karachi, from 01-Jan-2013 to 31-Dec-2014. Total number of gynae admissions during the study period was 2735, out of which 102 patients were with gynecological cancers. All the patients diagnosed with genital tract malignancies were included, detailed history & examination carried out, relevant investigation carried out. Surgical process were performed where needed & specimen sent for histopathology according to standardized practices. The data collected on especially designed performa. The variable studied were age, risk factor, clinical presentation & histopathological type.

The data was recorded on SPSS V. 20 and analyzed.

Results: Frequency of ovarian cancer was highest (n=45, 44.1%) with mean age group (35–55 years old) followed by uterine cancer (n=34, 33%) & carcinoma cervix (n=17, 16.7%) with mean age >55 years. Papillary Serous adenocarcinoma was major ovarian malignancy (n=11, 24%) followed by serous cystadenocarcinoma & sex cord stromal tumor (n=4, 8%). Most common uterine cancer was endometrioid adenocarcinoma (n=24, 70%) while most common cervical cancer was squamous cell carcinoma (n=15, 88%). Both cases of vulvar carcinomas were squamous cell carcinoma (n=2/2, 100%), Carcinoma of fallopian tube included mixed Mullarian tumor & endometroid cancer. 2 cases reported as leiyomyosarcoma.

Conclusions: Cancer is major cause of death and misery in developed and developing countries. Gynaecological cancer like other cancers, place tremendous strain on individuals, families and communities. Quality data is essential for effective cancer control and is the basis upon which policies and programs are developed. One major problem in developing countries is the absence of accurate statistics. It is therefore not possible to reliably calculate incidence rates of various cancers, despite of relatively high frequency of female genital malignancy in Pakistan. This in turn will help to devise strategies for effective screening, early diagnosis and timely Management to reduce morbidity & mortality.
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Objectives: To show the usefulness of irinotecan to treat carboplatin/paclitaxel-refractory ovarian cancer.

Method: We report a long-term survival case of carboplatin/paclitaxel-refractory ovarian cancer treated by weekly irinotecan chemotherapy.

Results: A 57-year-old female presented to a local clinic with abdominal pain and distention. She was referred to our hospital for suspected gynecologic malignant tumor. Laparotomy was performed and the histopathological diagnosis was stage IIc ovarian serous surface papillary adenocarcinoma. Progressive disease was observed after 3 courses of postoperative chemotherapy with a combination of paclitaxel and carboplatin. A weekly irinotecan chemotherapy was selected as a second chemotherapy. Twenty-eight courses of chemotherapy could be performed until progressive disease was observed. Toxicities were well tolerated. The patient is alive with disease-free 4 years and 3 months after primary surgery.

Conclusions: Although complete response could not be observed, irinotecan seemed to greatly contribute to prolong survival carboplatin/paclitaxel-refractory ovarian cancer.

P0402
RHABDOMYOSARCOMA OF CERVIX COMPLETELY TREATED WITH RADICAL TRACHELECTOMY IN A 14-YEAR-OLD ADOLESCENT: A CASE REPORT

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Objectives: Rhabdomyosarcoma is the most common soft tissue sarcoma in children but rare in uterine cervix. In patients with localized disease, overall 5-year survival rates have improved to more than 80% with the combined use of surgery, radiation therapy, and chemotherapy. However, in patients with metastatic disease, little progress has been made in survival rates, with a 5-year, event-free survival rate of less than 30%. Here we report rare case of rhabdomyosarcoma in uterine cervix which was completely treated with radical trachelectomy.

Method: The medical records of the patient with dysgerminoma with secondary amenorrhea were retrospectively reviewed.

Results: A 14-year-old girl referred to our center with a protruding mass from her vaginal introitus, as a polyp of 4 cm. A vaginal examination revealed a mass within her vagina and a punch biopsy was performed. Microscopic findings are consistent with an embryonal rhabdomyosarcoma (botryoid type). An abdominopelvic computed tomography was performed and lesion was found as a mass located at cervix, which measured approximately 9 x 5 cm, without evidence of metastatic disease. Radical trachelectomy was performed without adjuvant therapy and she does not have any recurrence in a follow-up for 8 years.

Conclusions: The presence of a cervical mass in an adolescent is very rare and must necessarily be examined histologically because it could be a rhabdomyosarcoma. This is very important because early diagnosis of the disease is a favorable prognostic factor that allows "fertility-sparing surgery" for adolescent.

P0403
INCIDENTAL LEIOMYOSARCOMA OF THE UTERUS: A SINGLE TERTIARY CARE CENTRE EXPERIENCE OF 25 CASES OVER A PERIOD OF 6 YEARS

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Objectives: As per current literature 1 in 350 women will have leiomyosarcoma when surgery is done for “fibroids”. The aim was to identify the incidence, clinicopathologic features and outcome of incidental leiomyosarcoma.

Method: We identified 25 cases of histologically proven LMS at Government Medical College, Kozhikode, Kerala, India between 2009 and 2014. Data collected using hospital based tumor registry, patient case records and telephonic interviews. Data was analyzed using SPSS 17 software.

Results: The incidence was 1 in 125. The mean age were 49 years and had symptoms of fibroid uterus. The ultrasound hinted malignant nature by reporting as heteroechoic mass (45%), heteroechoic mass with irregular border (35%) and heteroechoic mass with metastasis (15%). Early-stage (FIGO I and II) comprised 84% (21 cases). Mean survival for Early-stage was 38 months and for late stages 6 months (Log rank – 0.000). In stage I and II, those who underwent “Myomectomy” with tumour spillage had a Progression Free Survival (PFS) of 5 months whereas those who had conventional TAH with BSO had a PFS of 24 months. All “Myomectomy” patients recurred.

Conclusions: Leiomyosarcoma is a aggressive tumour. Incidental LMS shows an high incidence and increasing trend. Uncharacteristic ultrasound features such as heteroechoic mass should raise suspicion regarding its malignant nature. In early stages (FIGO Stage I and II) conventional open hysterectomy without tumor-spillage gives best prognosis. Tumour spillage during “Myomectomy” or laparoscopic electromechanical morcellation can have fatal consequences.
miR21-GFP but not SiHa-miRnc-GFP cells. An orthotopic xenograft model of human cervical cancer was successfully established in NOD/SCID mice. Over-expression of miR-21 resulted in an increase in the size of the primary tumors at the time of excision. The primary tumor size was directly correlated with lymph-node metastatic burden and an increased frequency of spontaneous lymph-node metastasis was observed in SiHa-miR21-GFP tumors.

Conclusions: We established an orthotopic xenograft model verifying that miR-21 may accelerate tumor growth and enhance the ability of tumor cells to metastasize to local lymph-nodes in cervical cancer. The use of this model should allow for investigation of novel factors that affect metastasis of cervical cancer and presents an opportunity to evaluate potential therapeutic agents as inhibitors of the spread of disease.

**P0405**

**ROUTINE PAP'S SMEAR AND ITS CO-RELATION WITH HISTOPATHOLOGY IN UNHEALTHY CERVIX**

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**Objectives:** The cervical cancer is a preventable disease, yet it remains the third most common cancer worldwide with over 5,30,232 (8.8%) new cases and mortality of 2,750,089 (8.2%) annually. The easy accessibility of the cervix to inspection, palpation and application of cytological and tissue sampling procedures has led to screening programmes to detect pre-invasive and invasive lesions of the cervix. This study was done to study the Pap’s smear in patients presenting with unhealthy cervix and its co-relation to histopathology.

**Method:** This prospective study was conducted over a period of one year on women who attended Outpatient Department of Gynaecology, Sri Aurobindo Medical College and PG Institute, India. The patients with unhealthy cervix on appearance were evaluated by Pap’s smear and cervical biopsy and the results were compared.

**Results:** The patients in the study group belonged to the age ranging from 30–78 years. Pap’s smear showed normal smear in 10%, atrophic smear in 4%, bacterial vaginosis in 2%, inflammatory smear in 49%, low grade and high grade squamous intraepithelial lesion in 10% each and cancer cervix in 5%. The histopathological diagnosis showed Cervical Intraepithelial Neoplasia (CIN) I in 4.5%, CIN II in 3%, CIN III/Ca-in situ in 2% and squamous cell carcinoma in 6% and the rest were chronic cervicitis 84.5%.

**Conclusions:** Most of the patients who had abnormal Pap’s smear and abnormal histopathological diagnosis were the patients who had high parity and had an early age at marriage. Two patients of atrophic smear and two patients of bacterial vaginosis had CIN I and CIN II lesions. So Pap’s smear had poorer sensitivity especially in the low grade squamous epithelial lesions of the cervix.

**P0406**

**CHEST WALL RESECTION FOR LOCOREGIONAL RECURRENCE OF BREAST CANCER: A FEASIBLE AND EFFECTIVE OPTION**

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**Objectives:** The purpose of this study is to analyze the results of surgical management of breast cancer chest wall recurrence.

**Method:** We reviewed 18 patients who underwent chest wall resection for breast cancer local recurrence in our institution from January 1998 to November 2011. The records analyzed were age, procedure, surgical margins, reconstruction techniques, operative morbidity and mortality, adjuvant treatment, recurrence and long-time mortality.

**Results:** The study population consisted of 18 women with a follow-up (5 to 162 months). Age The mean interval between the mastectomy and the chest wall recurrence was 3 to 108 months. Symptom control was achieved in 16 patients. All patients had length of survival at least 12 months. The mean of the survival length among the patients who died was 25.2 months (12 to 42 months). Six patients died due to distant recurrence of breast cancer and one patient died to inflammatory acute abdomen. Recurrence occurred in one (5.5%) patient.

**Conclusions:** We conclude that chest wall resection for locally recurrent breast cancer may be a good option in selected patients.

**P0407**

**SCREENING PROGRAM IMPLEMENTATION IN THE REPUBLIC OF UZBEKISTAN**

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**Objectives:** In Uzbekistan, sickness and mortality rates from Cervical Cancer increase every year, 350 (35.5%) out of 1000 diagnosed end up dying, i.e. mortality rate from cervical cancer exceeds maternal death in 2–2.5 times. In recent years, the role human papillomavirus plays in genesis of cervical cancer was proven. Prove that cervical cancer is a consequence of papilloma virus, puts this virus in one row with potentially preventable diseases through vaccination and cervical cancer screening. Our goal is within framework of pilot project perform the screening of cervical cancer among women of reproductive age and vaccination amid teenage girls.

**Method:** Cytological screening (PAP- smear) was performed for 25,000 women in the age of 23–49 y.o in 4 different regions of Republic through random selection. Additionally, for 2000 women residing in adverse ecological areas of Uzbekistan (increased radiation, chemical industries) and those who work on Mining and Metallurgical factories, simultaneously Digene-test was conducted. 800 teenage girls in the age of 13–16 y.o. have been immunized with Gardasil (Merck) vaccination against cervical cancer after permission from parents side was received.

**Results:** As a result of screening 23.9% of women have been diagnosed with L-SIL/H-SIL 16.3% of women L-SIL, inordinate and severe stages of dysplasia (H-SIL) as well as atypia of flat epithelium, not excluding severe dysplasia (ASC-H) that 7.7% of patients had. CIS and SCC diagnosed in 1.1% and 0.4% cases respectively. 1.2% women were identified with atypical glandular epithelium. 73.3% of women had normal cytological state.

Diagnostics of papillomavirus Digene-test showed that 15.4% of
women have high capacity (over than 5000 copies) of papillomavirus DNA and subsequently were included in a group with a high-risk of cervical cancer development.

**Conclusions:** Today, due to this project, screening centers for PAP-testing and vaccination for papillomavirus are established in regions of Republic. Due to timeserving screening we have detected women with the high risk of cervical cancer developing.

In order to evaluate the effectiveness of screening usually we need to conduct big randomized research. Introducing the regular mandatory inspections and usage of modern methods of diagnostics is especially topical for our country.

The concept of national program for cervical cancer prophylaxis in Republic of Uzbekistan was worked out according to the results of inspections and usage of modern methods of diagnostics is especially topical for our country.

P0408

CYTOREDUCTION FOR OVARIAN CANCER – A REVIEW OF SURVIVAL AND SURGICAL OUTCOMES AT MUSGROVE PARK HOSPITAL, TAUNTON, 2009–2013

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**Objectives:** Current first-line treatment for advanced-stage ovarian cancer involves primary debulking surgery followed by adjuvant platinum-based chemotherapy. Optimal debulking is an important prognostic factor with the goal of surgery to leave behind no macroscopic disease. Recent randomized clinical trials (RCTs) suggest neoadjuvant chemotherapy followed by interval debulking is a safe alternative. There is debate about whether achieving macroscopic debulking is merely prognostic or directly therapeutic.

We evaluated cytoreductive surgery in patients treated at Musgrove Park Hospital, Taunton, UK and compared local practice to standards from NICE and recent RCT data.

Outcomes include overall survival, rates of successful debulking and morbidity.

**Method:** All patients registered on the Somerset Cancer Register with a diagnosis of Ovarian Cancer between 2009–2013 were included. Data was collected from hospital databases and paper notes.

**Results:** The sample comprised 147 patients. Median survival for Stage IV patients is 48 months.

Median post operative stay was 4 days. There was a significant reduction in length of stay over the 5 years (P=0.0061) reflecting the implementation of an enhanced recovery programme.

Achievement of debulking was affected by stage, with reduced macroscopic debulk in later stage patients (P<0.0001). For Stage 3 and 4 women, those who had neoadjuvant chemotherapy prior to surgery had reduced morbidity (length of stay (P=0.0009) and operative blood loss (P=0.008)) with no difference in overall survival (P=0.59).

**Conclusions:** We are able to demonstrate a significant reduction in Length of Stay over 5 years. Our success rates mirror those in the published literature, with comparable survival and morbidity rates. This demonstrates high quality patient care and supports neoadjuvant chemotherapy as a safe alternative to debulking surgery.

P0409

HIGH-THROUGHPUT DRUG SCREENING OF ADULT-TYPE GRANULOSA CELL TUMOR OF THE OVARY TARGETING FOXL2 C134W MUTATION AND GRANULOSA CELL

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**Objectives:** Adult-type granulosa cell tumors of the ovary (aGCTs) are rare neoplasm that represents less than 5% of all ovarian cancers. Adult-type GCTs are characterized by low-malignant potential and late-recurrence. The primary treatment is surgery and adjuvant chemotherapy, and surgery is the only effective treatment after recurrence. Novel strategies for treatment of GCTs are urgently needed. Genetically, 97% of aGCT have a missense point mutation of the 402C>G (C134W) in forkhead box L2 (FOXL2) gene. To establish novel treatment for aGCTs, we addressed a drug screening of 780 small molecules targeting FOXL2 C134W mutation and granulose cell.

**Method:** Our experimental system used the SVOG immortalized granulosa cell line with Tet-On inducible FOXL2, either as wild-type protein or C134W mutant. Expression of the FOXL2 transgene was titrated to physiological levels. We induced adult-type granulosa cell line KGN as a positive control and breast cancer cell line MCF7 as a negative control. The INCUCYTE™ ZOOM Kinetic Live Cell Imaging System was used to evaluate cell growth. The expression of the target genes regulated by the candidate drug were validated by RNA-seq and Western Blot. Caspase 3/7 assay was induced to evaluate apoptosis.

**Results:** Of 780 small molecules, 19 compounds which showed the specificity to FOXL2 C134W mutation and 24 specific to granulose cell derived cell lines were selected in the screening. Of those, the effect of BMP receptor type1 inhibitor LDN193189 which showed the highest specificity to the granulosa derived cell lines was investigated. RNA seq data showed the expression of ALK3 (BMP receptor type1a) which is a component of BMP receptor type1 in aGCTs was the highest in ovarian cancer tumor tissue. LDN193189 decreased the downstream SMAD1/5/9 phosphorylation and inhibited the cell growth via apoptosis in SVOG and KGN.

**Conclusions:** We conducted the drug screening of 780 small molecules targeting aGCTs. Of 43 candidate compounds, BMP receptor type1 inhibitor LDN193189 showed the specificity to granulose cell. BMP-SMAD1/5/9 pathway is a potential target of the treatment of aGCTs.

P0410

NON-HODGKIN’S LYMPHOMA INVOLVING THE VULVA: A CASE REPORT

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**Objectives:** To present a case with a non Hodgkin lymphoma involving the vulva.

**Method:** 40-year-old patient, in April 2009, was referred with a mass at the vulva. At the genital examination, a tumor that involved the left labia, ill-defined boundaries, extending to the homolateral ischiorectal fossa, of hard, immobile and painless consistency was found. She presented bilateral lymphadenopathies of 1 to 2 cm in diameter. Blood count cell: normal. Vulvoscopy and colposcopy: exocervix with no lesions; vagina with no mucosal lesions, vulva with no skin lesions. Nuclear magnetic resonance: bulky pelvic and perineal solid
tumor of 7.5 cm x 9 cm x 4 cm. Bilateral inguinal lymphadenopathy is observed.

Results: The biopsies confirmed that the lesion was non-Hodgkin lymphoma, diffuse to large B-cells. As for the staging and classification, it is a Stage II A according to Ann Arbor. They performed 4 series of chemotherapy based on: rituximab, cyclophosphamide, Doxorubicin, Vincristine. She has a complete remission of the mass.

Actually the patient is asymptomatic and with regular controls with hematologist.

Conclusions: The female genital tract is an infrequent site for extranodal non Hodgkin lymphoma. It can be primary, when originated in any organ of the female genital tract, or more frequently, it can be secondarily involved, but sometimes difficult to distinguish them.

**P0411**

**INTEGRATED MANAGEMENT PATHWAY FOR SCREENING OF OVARIAN CANCER IN THE COMMUNITY – A NOVEL APPROACH**

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Objectives: Of the view that cases of ovarian cancer in the community are not being detected early, UK national guidelines released in 2011 advised primary care physicians (GPs) to arrange for CA-125 as a screening test for women aged 50 or over with a specified group of symptoms. The GPs were advised to refer patients with CA-125 value > 35 IU/L for ultrasound pelvis for a RMI score, which if > 250 should be referred to secondary care. The aims of this study were to determine whether streamlining these guidelines is resulting in earlier detection in those diagnosed with ovarian cancer.

Method: In order to streamline these guidelines, in 2013 the Pathology, Radiology and Gynaecology team at Medway Maritime District General Hospital developed a pathway in which patients with CA-125 > 35IU/L were referred by the pathology team to radiology for an ultrasound, and subsequent referral to gynaecologist if the calculated RMI score was higher than 250. GPs were kept informed about their referred patients throughout. Data was collected to analyse the patient outcomes before and after the implementation of the pathway (during January - December 2012 prior to implementation and February 2013-February 2014 post implementation).

Results: Based on the National guidelines for screening of ovarian cancer in women age 50 and above, in 2012, 18 patients were identified having a raised CA-125 compared to 31 patients in 2013-14, 33% and 29% were diagnosed with ovarian cancer with mean age of 76 and 69 years respectively. The duration patients waited with a raised CA-125 to an ultrasound scan was reduced to 11 days from 23 days after the pathway was implemented. However the stage at which ovarian cancer was diagnosed remained unchanged with most being diagnosed at advanced stage, and the appointment time to gynaecology remained similar.

Conclusions: We believe that these initial results of our approach, the first of its kind in the UK is an important step for improving patient management cost effectively as they indicate that primary care physicians are referring more patients via this pathway, and that younger patients are being detected with ovarian cancer. However the stage at which ovarian cancer was diagnosed has not improved post implementation of these guidelines. The interval between onset of symptoms and presentation to GPs would most likely have a greater impact on earlier detection. More patient awareness is needed to stress the importance of presenting early.

**P0412**

**CAN HYDROFIBER DRESSING BE A SECONDARY HEALING STRATEGY FOR DIFFICULT WOUND PRIMARY CLOSURE AFTER RADICAL VULVECTOMY? A SERIES OF FIVE CASES**

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Objectives: Radical vulvectomy can result in significant loss of tissue. In instances such primary closure is not possible. Tension on the suture line is one factor contributing to wound breakdown most in patients with previous chemoradiation, severe contamination or patients with important comorbidades. In situation when primary closure with flap or graft is not possible, the strategy of using hydrofiber and secondary healing may be a good choice. The aim of this study was to describe this alternative (hydrofiber dressing).

Method: We prospectively analyzed 5 women referred to our institution with a diagnosis of vulvar cancer and who undergone vulvectomy with or without inguinofemoral lymphadenectomy between January 2011 to December 2013. During the wound closure, we left the wound open for secondary healing because of the impossibility of primary closure (3 patients with lesion nearby the clitoris and uretra, 1 with poor controled diabetis and hypertension and 1 submitted to previous chemoradiation).

Results: All patients left hospital on the first postoperative day and were oriented to antibiotic therapy for 7 days and care of the wound by curative with hydrofiber every 8 hours for 4 weeks. It was found no cases of wound infection, and full vulvar healing was observed on the average of two months.

Conclusions: Secondary healing strategy with hydrofiber may be an option after radical vulvectomy.

**P0413**

**WHAT CAN GYNECOLOGISTS FIND ON OVARIES AFTER SALPINGOOEPHORECTOMY IN PATIENTS WITH BREAST CANCER?**

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Objectives: The differential diagnosis between primary and secondary ovarian lesions in patients with breast cancer is difficult. Patients with primary ovarian cancer have poorer prognostic than patient with secondary tumors. We proposed to study the prevalence of malignance in the patients with breast cancer submitted to salpingo-oophorectomy treated in a cancer center in Brazil.

Method: Analysis of one hundred and seven patients treated at ICESP between 2009 and March 2015 with breast cancer diagnosis that were submitted to salpingo-oophorectomy.

Results: One hundred and seven patients (age 30–74 years, mean = 44) with breast cancer diagnosis were analysed. The reasons of salpingo-oophorectomy were: ovarian suppression 68 (63.5%), ovarian cyst 31 (28.9%), BRCA1/2 mutation or family history mutation 5 (4.7%) and endometrial diseases 3 (2.8%). The patients with ovarian cysts or masses 19.4% (6) had a diagnosis of metastatic breast carcinoma and 25.8% (8) had primary ovarian malignant epithelial tumors. No patient with BRCA1/2 mutation or family history mutation had any malignant diagnose. Among patients submitted to ovarian suppression salpingo-oophorectomy, 19.1% (13) had occult breast carcinoma metastasis and no primary ovarian carcinoma was found.

Conclusions: Almost half of the patients with breast cancer submitted to salpingo-oophorectomy have some ovarian malignancy prin-
Conclusions: There was no corresponding change in mortality during the study, respectively in 1985–1989 to 64.2 and 39.9 respectively in 2000–2004.

One-Third primary tumors. The early recognition of primary ovarian tumors in these patients may modify their prognosis.

**P0414**

**OVARIAN CANCER IN WALES: INCIDENCE, SURVIVAL AND MORTALITY**

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**Objectives:** To provide an up-to-date analysis of time trends in incidence, survival and mortality from ovarian cancer in Wales.

**Method:** Cases of ovarian cancer registered between 1985 and 2012 were identified from the Welsh Cancer Intelligence and Surveillance Unit (WCISU). Age-standardised incidence rates were determined. Trends in survival and mortality rates were also analysed.

**Results:** A total of 10498 ovarian cancer cases were registered with the Welsh cancer registry from 1985 to 2012. The age-standardised incidence rate was 19.3 per 100000 with no significant change in incidence over the study period (p=0.851). The peak age of incidence is in the 60–69 age group (p<0.001), although there has been a significant increase in incidence in the 70–79 age group lately. One- and five-year relative survival have improved from 53.7 and 31.5 respectively in 1985–1989 to 64.2 and 39.9 respectively in 2000–2004. There was no corresponding change in mortality during the study period (p=0.894).

**Conclusions:** The incidence of ovarian cancer has remained fairly stable in Wales in the past 30 years. There has been a significant improvement in survival but no change in mortality. This suggests a probable increase in the rate of early diagnosis with no corresponding change in mortality.

**P0415**

**HUMAN PAPILLOMAVIRUS GENOTYPES DISTRIBUTION IN 83 INVASIVE CERVICAL CANCER CASES FROM BRAZIL**

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**Objectives:** Invasive cervical cancer is the second most common malignant tumor affecting Brazilian women. Knowledge on Human Papillomavirus (HPV) genotypes in invasive cervical cancer cases is crucial to guide the introduction and further evaluate the impact of new preventive strategies based on HPV. We aimed to provide updated comprehensive data about the HPV types distribution in patients with invasive cervical cancer.

**Method:** Fresh tumor tissue samples of histologically confirmed invasive cervical cancer were collected from 83 women attending a reference center that may reflect the local epidemiology of HPV transmission among these populations. Due to the impact of these findings on cervical cancer preventive strategies, extension of this investigation to routine screening populations is warranted.

**Results:** 80 out of 83 valid samples (96%) were HPV DNA positive. The most frequent types were HPV16 (56.2%), HPV18 (12.5%), HPV31 (8.8%), HPV33 (6.2%), HPV45 (6.2%) and others high risk HPV type (6.1%). Most infections (75%) were caused by individual HPV types. Women with adenocarcinoma were younger than those with squamous cell carcinoma, as well, as women infected with HPV33 were older than those infected by other HPV types.

**Conclusions:** To our knowledge, this is one of the largest studies made with fresh tumor tissues of invasive cervical cancer cases in Brazil. This study depicted a distinct HPV genotype distribution on a reference center that may reflect the local epidemiology of HPV transmission among these populations.
P0418
TIMING CHOICE FOR THE SURGERY IN PATIENTS WITH MIDDLE-LATE STAGE OF OVARIAN CANCER

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Objectives: To explore the operation time for comprehensive treatment of the middle-late stage of ovarian cancer (OC) patients.

Method: A retrospective analysis of 110 patients with the middle-late stage of OC was performed and these included 69 patients with primary cytoreductive surgery (the first group including type I OC: 41 and type II:28) and 41 patients (the second group including type I OC: 15; type II OC: 26) with difficulty to achieve satisfactory cytoreductive effect for the initial operation (residual tumor <1cm). The second group of OC patients should go ahead for 3–4 cycles of the neoadjuvant chemotherapy (TP regimen), and then be administered the intermediate cytoreductive surgery after the comprehensive evaluation of CT/MRI.

Results: The average amount of bleeding during operation of the patients in the second group (155.4±98.6ml) was significantly lower than that in the first group (311.3±121.5ml) (P < 0.05). Furthermore, the proportion of satisfactory cytoreductive effect in patients with type I OC was markedly higher than those in type II OC in the first and second groups (P < 0.05).

Conclusions: Neoadjuvant chemotherapy plays an important role in the operation of patients with the middle-late stage of OC and choosing the optimal timing of surgery before operation is critically important in achieving the satisfactory cytoreductive effect.

P0419
THE ERCC1 AND DNA PLOIDY ARE BIOMARKERS ASSOCIATED WITH THE SENSITIVITY OF NEOADJUVANT CHEMOTHERAPY FOR LOCALLY ADVANCED CERVICAL CANcer

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Objectives: To assess whether the expression of ERCC1 and DNA ploidy can be used as biomarkers to evaluate the effect of neoadjuvant chemotherapy (NACT) for locally advanced cervical cancer (LACC) and provide the theoretical basis for patients selection.

Method: 60 cases of biopsy specimens from LACC patients were collected before chemotherapy. All primary cervical cancer tissues were paraffin-embedded for use. Applied PCR combined with the fluorescence probe technique was performed to analyze the expression of ERCC1 and adopted the DNA quantitative analysis technique was used to analyze the expression of DNA ploidy. The relationship between the expression of ERCC1 and DNA ploidy and the NACT sensitivity of LACC was analyzed by statistics.

Results: In all 60 patients, 33 cases were found to be effective for chemotherapy, and the effective rate was 55% (33/60). Compared to the effective group, the expression of ERCC1 gene in the invalid NACT group was significantly higher (t=−8.376, P < 0.05). In addition, a correlation between DNA ploidy and the curative effect of NACT was also found (χ²=4.972, P < 0.05, χ²=0.288). Furthermore, we also demonstrated that the patients with higher expression of DNA diploid were much more sensitive to chemotherapy. However, no relationship was found between ERCC1 expression and DNA ploidy (z=−1.922, P > 0.05).

Conclusions: Our findings indicate that the expression of ERCC1 and DNA ploidy are biomarkers associated with the sensitivity of NACT in LACC patients and these two markers can be used to monitor chemotherapy of LACC.

P0420
ACQUISITION OF EPITHELIAL-MESENCHYAL TRANSITION AND CANCER STEM CELL PHENOTYPES IS ASSOCIATED WITH ACTIVATION OF THE PI3K/AKT/MTOR PATHWAY IN OVARIAN CANCER CHEMORESISTANCE IN VITRO

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Objectives: Chemoresistance is a major challenge in epithelial ovarian cancer (EOC) treatment. In this study, we aimed to investigate the role and association of epithelial-mesenchymal transition (EMT), cancer stem cells (CSCs) and the PI3K/Akt/mTOR signalling pathway in ovarian cancer chemoresistance using in vitro cell lines.

Method: Two pairs of EOC cisplatin resistant (EOC-CR) cell lines (A2780-cis and IGROV1-cis) and the corresponding parental cell lines (A2780 and IGROV1) were used for comparison of chemotherapeutic resistance and activation of chemoresistance response by MTT assay, and expression of EMT, CSC and PI3K/Akt/mTOR signalling pathway proteins by immunostaining and Western blotting. Combination of dual PI3K/mTOR inhibitor (BEZ235) with cisplatin was performed using these EOC cell line in vitro.

Results: Two EOC-CR cell lines showed cross resistance to 4 mostly clinical chemotherapeutic drugs, including cisplatin, carboplatin, paclitaxel and docetaxel, an obvious increase in invasion and colony formation (P < 0.05) and significantly reduced proliferation (P < 0.05) respectively, compared to two EOC-control cell lines. In addition, enhanced EMT and CSC phenotypes and activation of the PI3K/Akt/mTOR signalling pathway were also found in EOC-CR cells. Furthermore, combination of a dual PI3K/mTOR inhibitor (BEZ235) with cisplatin chemotherapy effectively increased chemosensitivity and induced more apoptosis in EOC-CR cells, concomitantly correlated with the reduced expression of EMT/CSC markers and the PI3K/Akt/mTOR signaling pathway proteins compared with cisplatin chemotherapy alone.

Conclusions: Our findings indicate that EOC chemoresistance is associated with EMT and enhanced CSC phenotypes via activation of the PI3K/Akt/mTOR signalling pathway, and that the combination of BEZ2235 with cisplatin chemotherapy is a promising modality to overcome chemoresistance in the treatment of EOC. This combination approach warrants future in vivo animal study and clinical trials.

P0421
ASSIGNMENT SCHEME OF ANTICOAGULATION THERAPY IN CANCER PATIENTS

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Objectives: To determine the optimal mode of appointment of antithrombotic prophylaxis in perioperative period in cancer patients.

Method: The study involved 889 patients with gynecological cancer in the perioperative period.

Group I: LMWH for 10 days before surgery 0.3 ml, cessation of therapy 24 hours before surgery, then 0.3 ml for 10 days postoperatively – 213 patients.

Group II: LMWH 24 hours before surgery, then 0.3 ml for 10 days in postoperative period – 212 patients.

Group III: LMWH 0.3 ml for 10 days postoperatively – 216 patients.

Group IV: unfractionated heparin 5000 IU 3 times a day for 10 days in the perioperative period – 248 patients.

Results: Before surgery rate of subcompensated DIC was 18.5–50%. After surgery rate of subcompensated DIC has increased significantly to 52–75%.
In group I, normal levels of DIC markers (TAT, PF4, F1+2) has been observed in 1–3 days.
In group II, normalization of DIC markers has been observed in 3–5 days.
In group III, DIC markers tended to normalize in 5–7 days.
In group IV, normalization of DIC markers has been detected only on the 7th day. D-dimer in some patients remained heightened for up to 10 days. In addition, 28 patients (13.7%) formed extensive bruising in the postoperative period, virtually eliminates the risk of thrombosis and contributes normalization of DIC markers in 3 days.
This scheme could be recommended for all cancer patients as a minimum program.

Conclusions: The proposed scheme prophylaxis: LMWH 10 days before surgery and cancel 24 hours prior to surgery, then 0.3 ml for 10 days in the postoperative period, virtually eliminates the risk of thrombosis and contributes normalization of DIC markers in 3 days. This scheme could be recommended for all cancer patients as a minimum program.

P0422
RARE LOCALISATION TROMBOSIS IN CANCER PATIENTS: FOCUS ON PROBLEM
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Background: Thrombosis of rare localizations: hepatic vein thrombosis, splenic, mesenteric, ovarian veins, brain, portal veins are life-threatening disorders, which often goes unrecognized. The most frequently atypical localizations develop thrombosis in patients with inherited defects of hemostasis – genetic thrombophilia. Rare localizations of thrombosis often accompanied acquired abnormalities of hemostasis, which include antiphospholipid syndrome, hypercoagulation in oncology.

Aims: The detection of thrombosis rare localizations required screening for genetic forms of thrombophilia and antiphospholipid syndrome and timely appointment of anticoagulant therapy.

Method: Since 2006 we have observed 1214 patients with gynecological cancer. In 10 cases we have observed unusual localization thrombosis.
In 56 y.o. patient with ovarian cancer despite of anticoagulation therapy with LMWH has been found mesenteric thrombosis in 2 day after surgery. In addition to the above mentioned mutations it was found ADAMTS13 gene mutation.

Results: Hepatic vein thrombosis (Budd-Chiari syndrome) – in 1 case. Splenic vein thrombosis – 2 cases, renal vein thrombosis – 1 case, thrombosis of retinal artery and vein – 3 cases, Cerebral venous thrombosis – 1 case, mesenteric thrombosis – 2 cases, one of them has lead to death in early posturgery period. The factor FV Leiden homozygous mutation was found 9 patients, except 1 patient with retinal vein thrombosis, the homozygous MTHFR mutation has been found in 9 patients, heterozygous in 2; prothrombin mutation in 9; PAI-1 polymorphism in all 10 cases, platelets glycoproteins polymorphism in 7 cases.

Conclusions: Presence of multigene forms of genetic thrombophilia and APA-circulation increase risk of rare localizations thrombotic complications in cancer patients, therefore such patients required in intensive permanent preventive maintenance with use of LMWH.

P0423
PREVENTION OF DIC AND THROMBOPHILIA DURING CHEMOTHERAPY IN OVARIAN CANCER PATIENTS
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Objectives: Chemotherapy are additional risk factor for thrombosis in cancer patients. The aim of the study was to determine necessary range of laboratory tests for a high-grade estimation of haemostasis state in patients undergoing chemotherapy.

Method: 116 patients undergoing chemotherapy divides at random on 2 groups: I group: 56 received biosimilar LMWH Hemapaxan 4000 IU before each chemotherapy curse II group: 60 without any anticoagulant prophylaxis during chemotherapy.

Laboratory tests: Platelet aggregation tests, DIC and thrombophilia marker tests: D-dimer, TAT complexes, F1+2 prothrombin. Fibri
nolytic activity tests: determine PAI level, Protein C and S levels before operation thrombophilia and DIC was detected in 65%, subcompensated forms was in 35%. In postoperative period in 96% were detected thrombophilia and DIC. The rate of subcompensated forms of DIC was 57%, decompensated 21%.

Results: We have detected the sign of thrombophilia and DIC in more than 90% patient during chemotherapy. The rate of the subcompensated forms of DIC was 30%, decompensated 23%. It was observed damage of fibrinolytic activity due to iatrogenic effects of chemotherapy: reduction in proteins C and S levels, increase PAI concentration, platelets hyperaggregation in ristotetin presence. In I group normalization of lab test results was detected during 2–3 days after chemotherapy course in comparison with II group normalisation was in 5–7 days in 22% and in 7–12 day in 58%, in 20% was not registered spontaneous normalisation.

Conclusions: Due to endothelium protection activity LMWH in ovarian cancer patients during chemotherapy significantly reduce intensity of thrombophilia and DIC. 85–90% patients with cancer of female genitals required permanent preventive anticoagulant prophylaxis.

P0424
THE EXPERIMENT RESEARCH OF CORRELATION BETWEEN PLASMA MiRNA EXPRESSION SPECTRUM AND CERVICAL CANCER
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Objectives: 1. To explore the expression level of plasma miRNA expression difference in patients with cervical cancer and the expression difference in different clinical stages. 2. To evaluate the plasma miRNAs in the diagnosis of cervical cancer.

Method: From January 2013 to June 2013, we selected 12 women who had already been diagnosed cervical invasive cancer by cervical biopsy, diagnostic cionization and pathohistology in department of gynecology of Nanjing Drum Tower Hospital. At the same time, we selected 12 cases of community medical staff as the control group. The two groups of screening of micrornas in plasma, we used real-time fluorescent quantitative PCR method for testing, then the data will be analyzed by the independent sample test.

Results: The test result from the independent test data set showed that there was a significant expression difference in cervical cancer group and the control group of miR-21, miR-34a, miR-200a and miR-214, and miR-21, miR-200a, miRNA-214 to express present differences in cervical cancer clinical stage. ROC (receiver operating characteristic curve) can be drawn, the area under the ROC curve (AUC) between 0.7–0.9, 0.767, 0.826, 0.874 and 0.727, respectively, show that the four plasma micrornas markers has certain accuracy.

Conclusions: Plasma miR-21, miR-34a, the miRNA-200a has high expression in patients with cervical cancer, while the miRNA-214 low expression. Plasma miR-21, the miRNA-200a in late cervical cancer (Ib and above) expression than early cervical cancer (Ia–Iia) expression is higher, the miRNA-214 in the late cervical cancer (IIb and above) expression than early cervical cancer (Ia–Iia) expression. Screening of micrornas in the diagnosis of cervical cancer has certain accuracy.
P0425
CERVICAL CANCER AND HIV AMONG WOMEN IN SOUTHERN PROVINCE, RWANDA
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Objectives: Noncommunicable diseases (NCDs) including cancer are a health care priority in Rwanda. Cervical cancer is the leading cause of cancer related death among Rwandan women. Initiatives to reduce cervical cancer death are in development including a national prevention, screening and treatment program. Current treatment options are limited due to restricted radiation therapy access, and women with advanced stage are relegated to palliative care. The purpose of this study was to determine the social, behavioral, and clinical characteristics of women diagnosed with cervical cancer in the Southern Province of Rwanda, as well as the prevalence of HIV infection among this population.

Method: This cross sectional study was carried out from December 1, 2011, to May 31, 2012. Female patients age 21 and older presenting to the eight district hospitals of the Southern Province of Rwanda with a cervical lesion underwent gynecologic examination and cervical biopsy. A questionnaire including demographic information, reproductive, obstetric, and social history was administered. A blood sample for HIV testing and CD4 count was also obtained. Informed consent was obtained from all patients. Data were analyzed using SPSS.

Results: Fifty women were included in the study. Forty percent of patients were stage IIb at diagnosis and 36% of patients were stage III or higher. Mean age was 56.7±12.3 years (range 36 to 78). All patients had low socioeconomic status and 66% never attended school. Fifty-two percent reported a history of smoking. Twelve percent were HIV-positive, compared to a general population prevalence of 3.7%. The average age of HIV-positive patients was lower than HIV-negative women (42.7±6.1 v 58.7±11.7 years, p=0.002). Mean parity was lower for women with early stage compared to advanced stage disease (4.8±1.4 v 7.5±2.6, p=0.005).

Conclusions: The majority of women from the Southern Province of Rwanda who were diagnosed with cervical cancer have advanced disease. This population is characterized by low socioeconomic status, lack of education and high parity. HIV infection is more prevalent among Rwandan women with cervical cancer than the general population. Screening for cervical cancer and educational initiatives are needed to reduce the prevalence of cervical cancer in the Southern Province of Rwanda and detect disease at earlier stage.

P0426
THE RECURRENT PATTERN OF RADICAL HISTERECTOMY AND RADICAL TRACHELECTOMY IN PATIENTS WITH EARLY CERVICAL CANCER
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Objectives: The objective of this study was to evaluate the oncologic and obstetrical outcomes of radical trachelectomy and to analyze the distinct relapsed pattern between radical hysterectomy and radical trachelectomy in the treatment of early cervical cancer without lymph node metastasis.

Method: Forty-one patients with early-stage cervical cancer were treated by laparoscopic radical trachelectomy (LRT) from October 2004 to December 2009. Data regarding clinicopathologic characteristics, recurrence, and subsequent pregnancies were recorded. For the observation, 831 patients with early-stage cervical cancer were treated by laparoscopic radical hysterectomy (LRH) were analyzed.

Results: The median age at diagnosis was 29 years (range 22–37 years) and stage IA2 or IB1 cervical cancer were treated by LRT. Mean tumor size was 1.7 cm (range 0.4–3.5 cm) and there was no perioperative complication. Six patients were recurred after the initial treatment (14.6%); the recurrence rate was relatively higher than in patients treated with radical hysterectomy for early cervical cancer without lymph node metastasis (3.6%). The relapsed sites were all loco-regional locations, uterus stump or pelvic lymph node in LRT patients, whereas distant metastases including paraaortic lymph node, liver and lung were more common in LRH patients.

Conclusions: In conclusion, the relapsed pattern between radical hysterectomy and radical trachelectomy in the treatment of early cervical cancer without lymph node metastasis was obviously different. It is required to be cautious to prevent the dissemination of tumor cells in pelvic cavity.

P0427
STUDYING THE ROLES AND LINK OF EXPRESSION OF ERCC1 MRNA AND P53 GENE IN LOCALLY ADVANCED CERVICAL CANCER NEOADJUVANT CHEMOTHERAPY
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Objectives: To investigate association between expression of ERCC1 mRNA and P53 gene with the neoadjuvant chemotherapy (NACT) response and prognosis of locally advanced cervical cancer (LACC).

Method: A total of 60 biopsies from LACC patients were collected before chemotherapy in Henan Cancer Hospital, Zhengzhou, China. Using these paraffin-embedded samples, the expression of ERCC1 mRNA was detected RT-PCR technique, and the expression of P53 protein was examined by immunohistochemistry (IHC).

Results: Our results indicate that 45 out of 60 patients demonstrated positive response to NACT, and the effective rate was 75%. In addition, the logistic regression analysis showed that expression of ERCC1 mRNA and P53 protein was negative factors for curative effect of NACT (P<0.05), whereas no correlation was found between over-expression of ERCC1 mRNA, PS3 and stage, age group, pathological grade as well as tumor type (P>0.05). Over-expression of ERCC1 mRNA was found to be positively correlated with P53 protein (P<0.05). Furthermore, we also found high risk group of patients accounted for 68.9% (35), undergoing radiotherapy in the postoperative pathological results.

Conclusions: The over-expression of ERCC1 mRNA and P53 protein in LACC tissue is related to the resistance to NACT, which could be used to indicate whether a high risk exists based on the postoperative pathological results. In addition, expression of two markers demonstrates positive correlation.

P0428
RADICAL HISTERECTOMY FOR UTERINE CERVICAL CANCER FIGO STAGE IIIB
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Objectives: Cervical cancer is one of the common gynecological malignancy and the strategies of treatment for uterine cervical carcinoma stagell are different between United State and Our country. This study aimed to analyze the treatment and outcomes of cervical cancer stage IIb in our hospital.

Method: A total of 128 cervical cancer stage IIb cases were diagnosed...
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and therapeutic treatment in Okayama University hospital between 2004 and 2013 were studied retrospectively.

Results: Of the 128 stage II cervical cancer patients, 88 patients were treated with radiation therapy (RT) included concurrent chemoradiation therapy (CCRT) initially, and 22 patients were underwent radical hysterectomy (RH) with systematic lymphadenectomy. The recurrent rates were 30.5% in RH group and 30.6% in RT group.

Conclusions: Traditionally, a group of patients with stage IIIB cervical cancer were recommended RH in Japan. We can reduce the number of patients who finally require adjuvant radiation treatment by histological diagnosis.

P0429
THE COMPARISON OF EFFICACY BETWEEN MACT AND 5FU+ACT-D THERAPEUTIC REGIMEN FOR LOW-RISK GESTATIONAL TROPHOBLASTIC NEOPLASIA

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Objectives: To compare the efficacy between MACT therapeutic regimen and 5Fu+ACT-D for low-risk gestational trophoblastic neoplasia (LR-GTN).

Method: The clinical data of 66 cases with LR-GTN treated in Beijing Obstetrics and Gynecology Hospital from January 2010 to April 2012 were analyzed retrospectively. Totally 32 of them treated with MACT therapeutic regimen and the other 34 patients with 5Fu+ACT-D therapeutic regimen. The differences of efficacy, courses of treatment, hospital day and toxic side effects were compared.

Results: There was no statistical difference in CR between two groups. The hospitalization days in 5Fu+ACT-D therapeutic regimen group (32.88 days) were longer than those in MACT therapeutic regimen group (22.09 days). Both total hospitalization expense and the average hospitalization cost of every courses in 5Fu+ACT-D therapeutic regimen group were higher than those in MACT therapeutic regimen group. The severity degree of myelosuppression, nausea and vomiting, diarrhea, stomatitis and alopecia in 5Fu+ACT-D therapeutic regimen group was more serious than that in MACT therapeutic regimen group. There was no statistical difference in severity degree of liver function damage between the two group.

Conclusions: There was no difference in CR between MACT and 5Fu+ACT-D therapeutic regimen. Shorter hospitalization time, lower hospitalization expense and more slightly toxic side effects were observed in LR-GTN patients treated with MACT therapeutic regimen. MACT regimens can be applied to the first line chemotherapy for LR-GTN.

P0430
MIRNAS IN UTERINE MESENCHYMAL TUMORS AND CARCINOSARCOMAS: A PRELIMINARY STUDY

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Objectives: To identify microRNAs and to analyze their expression patterns related to tumor development in carcinosarcoma and mesenchymal uterine tumors.

Method: Formalin-fixed, paraffin-embedded samples from 22 patients (2 myometrium as reference group, 3 leiomyomas, 6 carcinomas, 7 leiomyosarcomas and 4 endometrial stromal sarcomas) were obtained from Gynecology Discipline of Obstetrics and Gynecology Department of Faculdade de Medicina da Universidade de Sao Paulo - Sao Paulo, Brazil. Total RNA was obtained using RNeasyPrepTM FFPE Total RNA Miniprep System (Promega). The miScript II RT Kit (Qiagen) was used to perform the cDNA synthesis. Real-Time PCR reaction was performed using the miScript miRNA PCR Array (Qiagen) and the miScript SYBR Green PCR Kit (Qiagen) for analysis of 84 miRNA sequences described as human cancer-related.

Results: Three miRNAs with down regulation of expression were selected for analysis among 84 miRNA sequences. As preliminary results: hsa-let-7c-5p, hsa-miR-143-3p and hsa-miR-23b-3p were down expressed in all subtypes of malignant uterine tumors. Leiomyomas did not show differences in the regulation of these molecules, comparing to miometrium. According to the literature, these miRNAs show tumor suppressor activity. They are decreased in different types of cancer as breast, stomach and colon. Studies demonstrate that hsa-miR-23b-3p is associated with metastatic suppression.

Conclusions: All uterine sarcomas showed changes in the expression of hsa-let-7c-5p, hsa-miR-143-3p and hsa-miR-23b-3p compared to leiomyoma and myometrium. Additional analyzes are ongoing with a large number of samples in order to associate the expression of miRNAs to clinical pathological features.

P0431
CORRELATION OF LYMPH NODE METASTASES WITH STAGE AND GRADE OF THE DISEASE IN CARCINOMA OF THE CERVIX

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Objectives: To find out pelvic and paraaortic lymph node enlargement with clinical stage of carcinoma of cervix; and also to see the histopathological correlation with lymph node enlargement.

Method: 110 patients were clinically staged and evaluated by CT. Treatment record of radiotherapy was available.

Results: Paraaortic and lymph node involvement was seen to be increasing with advancing stage of carcinoma of cervix. Highest lymphatic involvement was seen with SCK type of histopathology.

Conclusions: With SCK tumor and advanced stage of disease, radiation fields may need to modified to include lymph nodes in paraaortic region. More studies need to be conducted in this area.

P0432
EVALUATION OF HISTOLOGICAL TYPE AND AGE OF PATIENTS AFFICTED BY OVARIAN CANCER ADMITTED TO THE REFERENCE HOSPITAL, BRAZILIAN INSTITUTE OF CANCER CONTROL (IBCC) IN SAO PAULO, FROM 2010 AND 2014

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Objectives: To determine the prevalence of ovarian cancer in patients admitted to the Brazilian Institute of Cancer Control during 2010–2014 and to correlate histological types of ovarian cancer to the age of the patients.

Method: Data obtained from medical records dated from 2010 to 2014 at the Brazilian Institute of Cancer Control were analyzed. It was also conducted a search in the following databases: MEDLINE/PubMed, LILACS/SciELO, Cochran library and Scopus for national and international articles and meta-analyses studies from the past 10 years, using as keywords “ovarian cancer and prevalence”, “histological type and ovarian cancer”. Incidence and prevalence of data were determined by statistical analysis using Prism software (GraphPad).

Results: Pathological examination of patients affected by ovarian cancer (n=107) we diagnosed cystadenocarcinoma in 69.1% of cases, ovarian carcinoma in 15.8%, undifferentiated malignancy in 4.6%, granulosa cell tumor in 3.7%, and other non-invasive tumor or with low malignant potential (7.4%). The prevalent age range in which the cancer has installed reaching a larger number of cases was between 51–60 years (28%), followed by 22.4% between 61–70 years. Statis-
tically significant correlations between cases of cystadenocarcinoma and age showed the following age groups with the highest percentile of cases: 41–50 years (18.9%), 51–60 years (25.6%) and 61–70 years (22.9%).

**Conclusions:** According to the literature, ovarian tumors of surface epithelium/stroma are the most prevalent in the general population, reaching about 70% of cases. Our findings support the literature, since these tumors also include cystadenocarcinoma, in addition to serous, mucinous, endometrioid and Clara cell tumors. In this study there was a positive correlation between higher incidence of cancer in the age group of 45–70 years which coincides, at least in part with literature data showing higher incidence of malignancies between 45 and 60 years in the general population.

**P0433**

**BREAST CANCER IN YOUNG TUNISIAN WOMEN**

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**Objectives:** Our aim was to report the epidemiological and clinical characteristics of breast cancer (BC) in young women and to evaluate the therapeutic results in our unit.

**Method:** We report the results of a retrospective study over 7 years (2008–2014) including patients with BC aged less than 45 years.

**Results:** The mean age of our patients was 39.01 years, 15.38% were nulliparous, 8% had family and personal antecedents breast cancer, 3 women were pregnant. First presentation with a palpable mass. The average tumor size is 3.86 cm, T2N0, node positive (N+), high grade (SBRII and III) and endocrine responsive tumors were the most frequent. Seven patients had metastatic disease. 29 patients underwent surgery which was conservative in 2 cases and followed by radiotherapy on 31 patients. Chemotherapy, was administered to 88% of all patients. 81% patients received hormonal therapy.

The median follow-up was 48.5 months. The 5 years overall survival was 68.3%.

**Conclusions:** In young breast cancer patients, stage, nodal involvement, lymphatic invasion, vascular invasion and ER/PR negativity were found to be significantly more frequent. Local-recurrence and mortality were observed more frequently in these patients and overall and disease-free survival rates were worse.

**P0434**

**LYMPH NODE METASTASIS IN WOMEN UNDERGOING INTERVAL DEBULking SURGERY FOLLOWING NEOadjuVANT CHEmOTHERAPY FOR ADVANCED OVARIAN CANCER MAY INDICATE WORSE PROGNOSIS**

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**Objectives:** The role of systematic lymph node dissection (SLND) during interval debulking surgery (IDS) following neoadjuvant chemotherapy (NACT) in advanced ovarian cancer is debatable. Proponents of SLND claim an improved five year disease specific survival, depending upon the extent of dissection and number of nodes harvested. As an institutional protocol, we undertake SLND of both the pelvic and para-aortic region for all women undergoing IDS. This study investigates whether detection of metastatic lymph node by SLND has prognostic significance.

**Method:** This is a retrospective cohort study form a tertiary cancer care institute of India of all women undergoing IDS for Stage III and IV ovarian, primary peritoneal and fallopian tube cancer, between August 2011 and June 2013. Records of women were identified from the hospital electronic medical records who underwent IDS during the study period and followed up until December 2014. Women were divided into two groups, those who had histologically positive lymph nodes and those who did not. Disease progression rate to progression, and survival at 12 months were compared.

**Results:** SLND was carried out for 49 of 51 patients undergoing IDS. 27/49 (55%) had nodal positivity, either pelvic (42.9%), para-aortic (36.2%) or both (18.4%). In the node positive group, follow up data was available in 25 women, 18 (72%) had clinical or biochemical recurrence. In the lymph node negative group (n=20), follow up data was available in 17 women. 7/17 (41%) recurred. 3/17 (17%) women in node negative group died compared to 3/7 (43%) women who had both pelvic and para-aortic nodes positive, 3/7 (43%) women with only para-aortic node and 5/11 (45%) with only pelvic node positive.

**Conclusions:** Preliminary data from our institution suggest that presence of metastatic disease in the lymph nodes for women with advanced ovarian cancer after receiving NACT could indicate a worse prognosis.

**P0435**

**MORTALITY PATTERN OF GYNECOLOGICAL CANCERS IN ZARIA, NORTHERN NIGERIA**

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**Objectives:** To provide information and data on pattern of gynecological cancer death in Northern Nigeria that will assist in the reduction of incidence and prevalence of the disease.

**Method:** It is a retrospective demographic study. The data of patients who died in our Gynaecology unit of the Ahmadu Bello University Teaching Hospital, Zaria was extracted from ward and autopsy register from 2010 to 2014.

**Results:** A total of 789 cases were managed during the period under study with a total death of 116. Cancer mortality rate was 14.7%. The mean age was 47.75 years. Hausa-Fulani ethnic group accounts for 63.7% of the population and 74.6% were multiraparous with low literacy level. Husbands are either farmers or petty traders. Average length of hospital stay was 14.8 days. The commonest gynecological cancer was carcinoma of the cervix accounting for 62.9%. More than 70% presents in advance stages.

**Conclusions:** Mortality rate was high and these are not unconnected with low level of literacy, poor health seeking behavior with late presentation which stems from lack of screening, screening programmes and lack of awareness. Low socioeconomic status of the people was a major factor in these patients. To overcome this tragedy is to address child education with women empowerment that is backed up by a sustainable government policy on cancer prevention.

**P0436**

**FZD3, FZD8 AND WISP1 ARE ASSOCIATED WITH POOR PROGNOSIS IN UTERINE LEIOMYOSARCOMAS**

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**Objectives:** To analyze Wnt signaling pathway-related genes expression profile and their value as prognostic markers in patients with leiomyosarcoma.

**Method:** The gene expression analysis was performed using Real Time Open Array Platform (Life Technologies, USA). We evaluate 112 genes expression in 176 samples (20 myometrium, 103 leiomyomas, 16 uncommon leiomyoma and 37 leiomyosarcomas cases). Patients were recruited at Obstetrics and Gynecology Department from the Hospital das Clinicas da Faculdade de Medicina da Universidade de...
Sao Paulo (Sao Paulo/Brazil). All patients signed a preformed consent and the study was approved by our institutional ethical board. Tissue samples obtained by surgery were snap frozen in liquid nitrogen or paraffin embedded until further processing. 

**Results:** FZD3, FZD8 and WISP1 showed correlation with poor prognosis. The upregulation of these genes was associated with lower survival in the leiomyosarcoma patients. Conventional and uncommon leiomyomas samples showed decreased amount of these genes independent of the treatment or status.

**Conclusions:** The data indicated that FZD3, FZD8 and WISP1 high expression contributes for leiomyosarcoma aggressiveness. In the future, these markers can be useful for this tumor prognosis prediction.

**P0437**

**KNOWLEDGE, ATTITUDE AND PRACTICES OF CERVICAL CANCER AND SCREENING AMONG WOMEN OF REPRODUCTIVE AGE ATTENDING GYNAECOLOGY CLINIC OF TERTIARY CARE HOSPITALS IN ISLAMIC REPUBLIC OF PAKISTAN: A CROSS SECTIONAL SURVEY**

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**Objectives:** The objective of this study was to explore the level of knowledge, attitude and practices about cervical cancer and it’s screening among women of reproductive age group through a cross sectional survey. Due to sparse statistics on cervical cancer in Islamic Republic of Pakistan, the main purpose was to provide basic statistics that can help to formulate future policies in context of cervical cancer awareness, screening and introduction of HPV vaccine at national level. It also intends to highlight a need for implementation of cervical cancer awareness programme and further research in this area in Pakistan.

**Method:** The study was conducted in two well known tertiary care hospitals in the capital city of Pakistan. It took a positivist deductive approach and empiricism was the key component. Sample size was calculated by using an epidemiological tool and total 385 women were recruited by using convenience sampling technique. A structured questionnaire was built to collect data by the interviewer and pilot study was done to identify any errors in questionnaire. T-test was applied for continuous variables and percentages were calculated for categorical variables. Chi square test and p value was determined to find an association between different categorical variables.

**Results:** Total 370 interviews were conducted as 15 participants either refused or gave incomplete information. Of all these women 85% were unaware of cervical cancer and its screening while 3% had heard of HPV and its association with cervical cancer. Only 10% women had pap smear once in their life and none of them had any information about vaccine availability. The eagerness to seek facts about cervical cancer was tremendous as 100% women showed interest in getting information about the disease through social media or community health programmes. Strong association between illiteracy, low socioeconomic status and lack of awareness was observed.

**Conclusions:** The survey clearly depicts knowledge gaps about cervical cancer screening and prevention among women of reproductive age group. It is concluded that being the fourth most common cancer among women internationally and second leading cause of death in developing countries, future research in cervical cancer is required in a Muslim developing country. Therefore it is important to design and implement national cervical cancer awareness programmes and to introduce national screening programme so that deaths due to cervical cancer can be prevented and economic burden due to this disease could be reduced.

**P0438**

**POSTOPERATIVE INFECTIONS AND DEHISCENCE FOLLOWING RADICAL VULVECTOMY AND INGUINOFEOMORAL LYMPHADENECTOMY**

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**Objectives:** Aim of the study was to analyse factors associated with wound infections and dehiscence following radical vulvectomy with bilateral inguinoferomoral lymphadenecotomy.

**Method:** Retrospective study of 135 radical vulvectomies with bilateral inguinoferomoral lymphadenectomies during a 6-years period. Standard surgical approach consisted of three incisions (vulva and both inguinal regions). We analyzed the following factors: age, stage of disease, presence of previous vascular diseases, ASA score, obesity and diabetes mellitus, occurrence of wound infections and dehiscence.

**Results:** Wound infections and dehiscence were present in 57 and 62% of cases, respectively. Stage of disease was the most important risk factor for wound infection. Dehiscence of vulva was present in quater of cases, while inguinal dehiscence complicated 75.6% of cases. Inguinal dehiscence was unilateral in 75% and bilateral in 25% of cases. The corrected percentage of inguinal dehiscence was 30%. Wound infection was identified in 59 (71%) of cases, the majority of which were late would infections. Wound infection and age of patients were noted as risk factors for wound dehiscence.

**Conclusions:** Advanced stages of disease were associated with more radical approach, higher rate of wound infections, and higher rate of wound dehiscences. Less radical surgery with a comparable oncologic outcome could be a worthy alternative in this subgroup of patients.

**P0439**

**PROGNOSTIC MARKERS IN PATIENTS WITH CERVICAL TUMORS OR CERVICAL CANCER**

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**Objectives:** Patients with high grade lesion or cervical cancer are submitted to excisional procedures, as high frequency surgery. Approximately, 23% of the women treated thus maintain positivity to HPV after the procedure, indicating the presence of remaining infected cells or tumor tissue. Most of these women are able to clear infection after a period of 6 months. However, some women cannot eliminate remaining cells, and are at risk of tumor relapse. The objective of this study is to find potential markers of relapse by evaluating gene expression profile of patients with and without relapse after excision.

**Method:** This is a retrospective study, comparing biopsies of patients that were HPV+ after lesion excision and had or not relapse within a period of 5 years. RNA was extracted from 8 patients/group, each with age and lesion matches. RNA expression will be evaluated by Real-time PCR after cDNA synthesis. We will used the Qiagen arrays for immune responses and oxidative stress. After identification of differentially expressed genes, their expression will be validated by immunohistochemistry in a collection of lesions from patients with and without relapse.

**Results:** We have successfully extracted RNA from formalin fixed, paraffin embedded biopsies. In average, we have obtained 70 ug of RNA per 80 um of tissue sections.

**Conclusions:** This is an ongoing project, where we hope to find markers that may allow us to determine which are the women in higher
and lower risk of disease relapse to better establish their follow up protocol after lesion removal.

**P0440**

**SYSTEMIC EFFECTS OF CERVICAL CANCER ON THE PATIENTS’ IMMUNE SYSTEM**

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**Objectives:** The tumor microenvironment is complex and secretes a series of molecules that, depending on the tumor mass, may reach high enough concentrations to circulate systemically. Chronic secretion of tumor derived molecule, as well as antigen presentation, causes alterations in inflammatory and immune responses that may influence tumor fate. Therefore, the objective of this study was to investigate effects of cervical cancer on the status of cell signaling pathways in the patients’ immune system.

**Method:** Sixty patients with low, high grade cervical lesions and cervical cancer are to be recruited in the Gynecology ambulatory. Peripheral blood of patients with low grade, high grade lesions or cervical cancer was harvested to PBMCs, which were either stained with antibodies against cell surface molecules, fixed, permeabilized and stained with anti-phospho p65 (NFkB), or differentiated in vitro to dendritic cells and used as antigen presenting cells to allogeneic T cells from healthy donors. Biopsies were collected from patients with high grade lesion or cancer. Tests were run in parallel with blood samples from healthy volunteers.

**Results:** Our data shows that NFkB phosphorylation is significantly decreased in patients with cervical cancer, compared to normal subjects. (15 patients until now) Preliminary data shows us that there is a gradient of NFkB inhibition that correlates with lesion grade. In parallel, we observed that dendritic cells from patients with cervical cancer, but not with precursor lesions, inhibit allogeneic CD4 T cell activation, measured by both cell proliferation and expression of activation markers.

**Conclusions:** In conclusion, patients with cervical cancer display systemic indications of partial immune suppression that may facilitate tumor growth.

**P0441**

**IMMUNOLOGICAL MARKERS IN CERVICAL CANCER PROGRESSION**

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**Objectives:** In the natural history of HPV associated tumors, inflammatory and immune responses are fairly well understood in the infection initial stages and in cancer. However, there is little information on the characteristics and role of inflammation during lesion progression. Therefore, the objective of this study is to characterize the inflammatory infiltrate of cervical lesions through the different disease stages.

**Method:** In this study, conducted through the Gynecology Department of Hospital das Clínicas, we have enrolled a cohort of 100 women with cervical lesions in the following grades: cervicitis, CIN (cervical intraepithelial neoplasia) grade I, grade II, grade III and invasive cervical carcinoma. From each of these women, we have taken a cervical biopsy and a peripheral blood sample. We have characterized the inflammatory infiltrate in the biopsies and the antigen presentation potential of monocyte derived dendritic cells from the blood.

**Results:** Our results show that the total inflammatory infiltrate increases with lesion grade. Among other features, we observed a negative correlation between neutrophils and T cells in high grade lesions and cancer biopsies. Moreover, in co-cultures with T cells, isolated infiltrating neutrophils promote expansion of the frequency of CD25+ T cells, but not CD69+ T cells, indicating that they may promote regulatory responses.

**Conclusions:** In conclusion, we have observed that the ratio infiltrating neutrophils/T cell may be a marker of disease progression and that tumor infiltrating neutrophils may inhibit T cell responses in patients with high grade cervical lesion or cervical cancer.

**P0442**

**ASSESSMENT OF THE HISTOLOGICAL TYPE AND CLINICAL STAGING OF PATIENTS AFFECTED BY OVARIAN CANCER ADMITTED TO THE REFERENCE HOSPITAL, BRAZILIAN INSTITUTE OF CANCER CONTROL (IBCC) IN SÃO PAULO FROM 2010 TO 2014**

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**Objectives:** To determine the prevalence of ovarian cancer in patients admitted to the Brazilian Institute of Cancer Control during 2010–2014 as well as to correlate the histological type and staging of patients.

**Method:** Data obtained from medical records dated from 2010 to 2014 at the Brazilian Institute of Cancer Control were analyzed. A search was also conducted in the following databases: MEDLINE/PubMed, LILACS/SciELO, Cochrane library and Scopus for national and international articles and meta-analyses studies from the past 10 years, using as keywords “ovarian cancer and clinical staging”, “histological type and ovary cancer”. For statistical verification the Prism software program (GraphPad) was used.

**Results:** The most prevalent histological type in the cases analyzed was the cystadenocarcinoma, with a percentage of 69.1%. Still, among the stages, the most common was the IIIC, representing 27.1%. Other common stages were IA (14%) and IV (13%). The others (IVA, IIB, IIIC, IIC, IIB, IIA, II, IC, IB, IA, I and Y) had no more than 6% representation alone. Among the cases of cystadenocarcinoma, the IIIC stage was the most frequent (31%), placing second the stage IA (14.8%) and third the stage IV (13.5%).

**Conclusions:** For general population, the most common histological type among the cases analyzed was the cystadenocarcinoma. Regarding the clinical stage, the most incident in patients with the cystadenocarcinoma or any other tumor was IIIC, demonstrating an extra pelvic dissemination and higher severity. According to the literature sought in this stage as well as in stage IV, the main prognostic factors are age, stage of cancer and the residual volume of the disease after surgery and pathological histology, taking into account that the mucinous tumors and clear cell are associated with worse prognosis. It’s obvious the importance between stage and neoplasm.

**P0443**

**METACHRONIC LEIOMYOSARCOMA AND CARCINOMA IN SITU OF UTERINE CERVIX: A CASE REPORT**

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**Objectives:** To report a case of leiomyosarcoma associated with cervical carcinoma in situ in a patient in the post-menopause phase.

**Method:** This study was based on a retrospective review of medical records and analysis of histopathology of a woman with uterine sarcoma and carcinoma of the cervix. This patient was followed in Gynecology service of Hospital Municipal da Piedade in Rio de Janeiro, Brazil.
RESULTS: FRDM, 54, menopause 4 years ago, referred continuous bleeding and increased abdominal size a year ago. The exam showed uterus 13cm, mobile and painless. Magnetic resonance imaging showed uterus 11.7×9.2×8.2 cm mass lesion showing of probable miiiomatosa nature with cystic degeneration/mixedomatous 6.8×8.2×7.5 cm, compressing the endometrial cavity. Performed total abdominal hysterectomy and bilateral salpingo-oophorectomy. Histopathological examination revealed a uterine wall leiomyosarcoma of 8.5 cm without vascular invasion associated with squamous cell carcinoma in situ of uterine cervix. The patient was referred to the oncology clinic to complement the treatment.

CONCLUSIONS: The incidence of metachronic tumors are rare in the literature. The risk of a subsequent cancer to a cervical cancer varies from 1.3 to 2.6%. The most affected organs are the lungs, stomach and large intestine because they are related to a common risk factor - Tabacco. Cervix tumors and uterine body are more rare. These diseases point to a need for more studies on the subject as well as a demand for improvement in screening for early detection of cervical cancer.

P0444 SMALL CONDUCTANCE CALCIUM-ACTIVATED POTASSIUM CHANNEL 3 (SK3) INVOLVED IN ESTROGEN INDUCED HUMAN ENDOMETRIAL CANCER CELL MIGRATION THROUGH A CLOSE CONTROL OF CALCIUM ENTRY

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OBJECTIVES: To study the expression and functionality of small conductance calcium-activated potassium channel 3 (SK3) in human endometrial cancer (ECa) cells as well as their involvement in cell migration.

METHODOLOGY: In this study, we used the techniques of molecular biology, biochemistry, electrophysiology and calcium imaging to study the involvement of SK3 in human ECa cell migration.

RESULTS: We showed that SK3 mRNA and protein were preferentially expressed in human ECa tissues, and inhibition of the SK3 potassium channel suppressed ECa cell migration. The expression of SK3 was increased by estrogen that mainly binding to classic estrogen receptor in cytoplasm. The activation of SK3 hyperpolarizes membrane potential and, by promoting the driving force for calcium, activating the PLC/IP3/IP3R signaling pathway, an important signaling pathway induced by CbP30, a membrane receptor of estrogen.

CONCLUSIONS: The overexpression of the SK3 channel is likely to promote cell migration and invasion in human endometrial cancer development.

P0445 EVALUATION OF THE RELATIONSHIP BETWEEN PATHOLOGIC ASPECTS OF BREAST CANCER AND MAMMOGRAPHIC FEATURES IN PREMENOPAUSAL WOMEN

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OBJECTIVES: The aim of this study is evaluation of the relationship between histopathologic aspects of breast cancer and mammographic features in premenopausal women who were referred to an educational hospital in north-east of Iran.

METHODOLOGY: In this study we retrospectively evaluate 891 patients with breast cancer, in which 190 patients were below 50 years old and premenopausal, during a 8 years in the department of oncology and radiotherapy of Ghaem hospital and also their pre-operation mammography were present in their files. We recruit the patients’ informations from their files according to an applied checklist. Their pre-operation mammographic findings and the clinicopathological features such as age, their chief complaints, type of surgery, type of tumor histology, tumor grading, axillary lymph node involvement, etc were obtained and assessed.

RESULTS: Number of involved axillary lymphadenopathies had a coherence with number of breast masses. There was a relationship between tumor size in pathology report and density of breast, opacity of mass and number of masses in mammography. Also the tumor grade in histology with number of masses and with spiculation of mass in mammography are correlated. The spiculation had a coherence with the age of involved patients, while other components of pathology report such as insitu component, histologic type and background histology of breast had no relation with the mammographic findings.

CONCLUSIONS: Tumor size and histologic grade had more relationship with mammographic findings than other features of breast cancer. In contrast, there was no correlation between histologic type of cancer, insitu component and background histology of breast tissue with mammographic features.

P0446 PRIMARY FALLOPIAN TUBE CARCINOMA: A RARE PRESENTATION AS PELVIC INFLAMMATORY DISEASE AND ACUTE RENAL FAILURE

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OBJECTIVES: Primary fallopian tube carcinoma is an uncommon gynecologic tumor, accounting for 0.14% to 1.8% of genital malignancies. Either way, its frequency is underestimated, mainly due to frequent ovoary involvement and a late diagnosis, rarely made pre-operatively. Contributing factors and physiopathology of the primary fallopian tube carcinoma are still not well understood, and its overall surviving rate is quite low.

Our main objective is to relate an extremely rare event, bringing awareness and sharing clinical knowledge to improve diagnosis, therapeutical approach and prognosis to patients with primary fallopian tube carcinoma.

METHODOLOGY: We describe a clinical case of primary fallopian tube carcinoma with an infrequent initial presentation, with pelvic inflammatory disease and acute renal failure.

RESULTS: 44 y.o. woman, presented to our emergency room with rapid abdominal distention. On examination, a right anexial heterogeneous mass was palpated and, by promoting the driving force for calcium, activating the PLC/IP3/IP3R signaling pathway, an important signaling pathway induced by CbP30, a membrane receptor of estrogen. Immediate hemodialysis was started. Laparotomy revealed a huge ascites, a bilateral tubo-ovarian mass, with fibrin deposition over the pelvis, resembling pelvic inflammatory disease. Total abdominal hysterectomy, bilateral salpingooophorectomy, omentectomy and peritoneal biopsies were performed. The definitive histopathological diagnosis was papillary adenocarcinoma of the fallopian tube with miometrial and peritoneal implants – IIIC stage. The patient was proposed for neoadjuvant chemotherapy.

CONCLUSIONS: Primary carcinoma of the fallopian tube is a very unusual gynecologic malignancy. Precocious clinical manifestations prompt earlier diagnosis, improving the overall prognosis. However, tubal malignancies are often silent until late stages of the disease. In our case, it was presented in an uncommon form, as a paraneoplastic syndrome, mimicking a pelvic inflammatory disease and inciting a multiorgan dysfunction. Diagnosed in an advanced stage, residual disease was left in place after the surgical approach, and chemotherapy was initiated 4 weeks after. Progression of the disease was unavoidable, with peritoneal carcinomatosis, multiple lymphadenopathies and recurrent ascites, despite 3 cycles of chemotherapys.
**P0447**

**THE PREVALENCE OF FOURTEEN HUMAN PAPILLOMAVIRUS TYPES IN WOMEN OF KHORASAN RAZAVI PROVINCE, NORTHEAST IRAN**

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**Objectives:** Cervix cancer is one of the most common malignancies among women, and papilloma virus has been recognized as its major cause. This cancer can be largely prevented through screening and vaccination. The purpose of this study is to assess the prevalence of twelve high-risk and two low-risk genotypes of human papilloma virus in Khorasan Razavi, Northeast Iran.

**Method:** In this population based study 900 subjects were studied who were randomly selected from 8 urban and 12 rural centers. The samples were taken from cervix of participants using DNA cytobrush then the virus type was determined using Polymerase Chain Reaction (PCR).

**Results:** The prevalence of HPV in our studied population was 4.1% among which the high-risk types included the 70.2% and low-risk ones included the 19%. In 10.8% of positive women, we detected a combination of high-risk genotype. The higher prevalence (6.4%) was seen in women aged 25–29 years. Among studied risk factor oral contraceptive pills usage and smoking were risk factor for HPV infection.

**Conclusions:** Although the 4.1% prevalence of papilloma virus in Khorasan Razavi province is less than the statistics of most of the other parts of the world, however, including the vaccination to the civil guideline would reduce the prevalence of pre-malignant and malignant cervix lesions.

**P0448**

**PREGNANCY AFTER BILATERAL DYSGERMINOMA OF THE OVARY**

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**Objectives:** This study was conducted with the objective to evaluate the fertility status of ovarian dysgerminoma patients treated with conservative surgery and BEP chemotherapy.

**Method:** Patients of bilateral dysgerminoma who underwent conservative surgery and chemotherapy with cisplatin 20 mg/m2 and etoposide 100 mg/m2 day 1 to 5 and bleomycin 30 mg on day 1, 8 and 15 of three weekly cycles were eligible. A normal AFP and beta HCG at baseline was required. Post treatment CT scans of abdomen and pelvis were obtained. Patients were regularly followed on monthly basis. Pregnancy was allowed 2 years after completion of last cycle of chemotherapy.

From January 2010 to December 2013, 11 patients were enrolled. Median age was 16 years (range 13–18).

**Results:** All patients had complete disappearance of disease after treatment. Treatment related amenorrhea did not last beyond one year. All patients conceived and a total of 14 pregnancies were completed successfully on a median follow up of 5 years. Three patients required use of clomiphene citrate for ovulation induction. No patient was treated with gonadotrophins. Six patients underwent lower segment caesarean section for obstetric indications and seven delivered vaginally. All babies were healthy without the signs of birth abnormalities or retardation.

**Conclusions:** With conservative surgery and BEP chemotherapy for treatment of bilateral dysgerminoma the fertility is retained with good pregnancy outcome, when conception occurs at least two years after the last dose of chemotherapy.

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**P0449**

**HITTING TWO BIRDS WITH ONE STONE: PROVIDER INITIATED COUNSELING AND TESTING FOR HIV AND CERVICAL CANCER**

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**Objectives:** To describe acceptability and feasibility of integrating HIV testing in cervical cancer screening and treatment service delivery setting in Tanzania, so as to promote scale up of integrated services.

**Method:** Analysis of service delivery data from 21 facilities in four Regions of the country screened in 2010–2013 was done to examine integration of HIV testing within cervical cancer screening and treatment services in Tanzania. Analysis included proportion of clients offered and accepting the HIV test, reasons why testing was declined, and proportion of clients with HIV positive results who were offered HIV testing and counseling. Data was taken from routine service delivery and stripped of any identifiers before analysis.

**Results:** A total of 24,996 women were screened for cervical cancer; of these approximately 26% were referred in from HIV care clinics. Among the women of unknown HIV status (n = 18,539), 60% were offered an HIV test. The proportion of women offered an HIV test varied over time. Unavailability of HIV test kits at facility level was the most common reason for clients not to be offered an HIV test (71% of 6321 cases). Almost all women offered (94%) accepted testing and 5% of those tested (582 women) learned for the first time that they were HIV positive.

**Conclusions:** It is feasible to roll out integrated services that include HIV testing and cervical cancer screening. Integrating HIV testing into cervical cancer screening services was highly acceptable and effective approach of reaching HIV positive women who did not know their status. However, its feasibility will most likely be hampered by shortage of HIV test kits for effective cervical cancer prevention service delivery. Integration of cervical cancer screening services with HIV testing should be prioritized in HIV endemic setting. The program in low resource setting should work to improve access of integrated services, treatment options of pre cervical cancer lesions while addressing barriers for promoting HIV testing.

**P0450**

**SCALING UP COMPREHENSIVE CERVICAL CANCER PREVENTION AS A NATIONAL PRIORITY OF THE GOVERNMENT OF TANZANIA**

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**Objectives:** Proposed panel presentation highlights key issues to address a major public health priority in Tanzania: lessons learned in scaling up comprehensive cervical cancer prevention program. The model demonstrates how bringing together different components of the program implementation has supported scaling up of high quality cervical cancer prevention services.

**Method:** Since 2008, the Ministry of Health Tanzania has worked in partnership to roll out cervical cancer prevention services using visual inspection with acetic acid and treatment with cryotherapy approach. To improve access to screening services with support from partners; the Ministry has implemented a model that includes; ensuring standards of care in cervical cancer prevention through development of the national guideline, training package, information system tools, communication materials and training health care providers. The Ministry has also endorsed provision of integrated cervical cancer prevention services under the reproductive and child health unit and few linked to HIV care clinics.

**Results:** Since 2010, national service delivery guideline, data collection tools and communication materials were developed and disseminated in more than 15 regions. With a strong focus on health system strengthening, more than 240 cervical cancer screening ser-
vices has been established in 15 regions in Tanzania. To strengthen service delivery component, capacity building of 37 VIA/Cryotherapy trainers has been done who have trained more than 500 health care providers. Several community mobilization events have been conducted to improve access of cervical cancer screening and treatment services. To strengthen the health information system and data reporting, 11 national cervical cancer screening program indicators has been included in the district health information system.

Conclusions: Working in collaboration with key stakeholders and partners, experience from Tanzania has shown significantly in scaling up cervical cancer prevention services. Partnership efforts underpinned by a model of implementation that strengthens specific component of the program such as: policy/guideline development of standards based practice, capacity building, service delivery, information system, community mobilization and the referral system is a cornerstone for comprehensive scale up of cervical cancer prevention services. This model represents an approach for strengthening health care system structures that influence access to evidence based focused cervical cancer screening and treatment services.

**P0451**

**IMPACT OF TIME INTERVAL FROM DEFINITIVE SURGERY TO INITIATION OF ADJUVANT CHEMOTHERAPY (ISC) ON SURVIVAL FOR ADVANCED EPITHELIAL OVARIAN CANCER**

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**Objectives:** We investigate the prognostic impact of the interval from surgery to initiation of chemotherapy (ISC) in advanced epithelial ovarian cancer.

**Method:** We enrolled patients with advanced epithelial ovarian cancer (FIGO stage III and IV) who were treated at Samsung Medical Center from January 1, 2001 to December 31, 2010. We excluded the patients who had neoadjuvant chemotherapy.

**Results:** 507 patients (stage III: 448, stage IV: 59) were enrolled and median ISC was 9 days (range 4–84). Delayed ISC is associated with increased HRs of overall survival only in optimal group (n=206, 40.6%). Consultation to general surgery department (HR, 2.744; 95% CI: 1.345–5.599; P=0.006), and platinum resistance (HR, 7.175; 95% CI: 4.112–12.52; P=0.007) were significantly associated with poor overall survival. In multivariate analysis, ISC remained to be significant poor prognostic factor (HR, 1.018; 95% CI: 1.003–1.033; P=0.022), and HR started to be significantly increased on the 17 days of ISC (HR, 2.744; 95% CI: 1.345–5.599; P=0.006).

**Conclusions:** Our data suggest that delayed chemotherapy after surgery might entail negative impact on overall survival in advanced epithelial ovarian cancer patients who had optimal cytoreduction.

**P0452**

**EFFECT OF BMI ON TREATMENT OUTCOME OF PATIENTS WITH CERVICAL CANCER (IB1 TO IVA)**

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**Objectives:** To investigate the effect of body mass index (BMI) on treatment outcomes of patients with cervical carcinoma.

**Method:** This retrospective cohort study included all patients with cervical carcinoma (IB1 to VIA) who were treated at Samsung Medical Center between April 1996 and December 2007. The height and weight of the patients based on the medical chart were used to calculate BMI (kg/m²) which was measured within 1 month before treatment began.

**Results:** In 1003 patients with cervical cancer, median follow up time was 52 months (range, 1–181) and 5-year overall survival rate was 86.3%, 174 (17.3%) recurrences/progressions and 124 (12.4%) deaths occurred during study. Median age and BMI of patients were 50 years (21–85) and 23.6 kg/m² (15.4–38.5). In univariate analysis, low BMI (<18.5 kg/m²) was associated with decreased progression and overall survival, but not statistically significant. In multivariate analysis, higher BMI was significantly associated with better overall survival (HR; 0.941, 95% CI; 0.892–0.933). Age (R²=0.167, P<0.001), hypertension (R²=0.167, P<0.001), and lymphocyte count (R²=0.167, P<0.001) were independent factors associated with patients’ BMI.

**Conclusions:** Cervical cancer patients with lower BMI at pretreatment had diminished overall survival. Patients with lower level of pre-treatment lymphocyte count in peripheral blood were associated with lower BMI at pre-treatment.

**High Risk Pregnancy**

**P0453**

**COMPARISON BETWEEN NITROGLYCERIN DERMAL PATCH AND NIFEDIPINE FOR TREATMENT OF PRETERM LABOR, A RANDOMIZED CLINICAL TRIAL**

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**Objectives:** Preterm labor and delivery is one of the most important complications of pregnancy which is a major cause of neonatal mortality and morbidity. Management of preterm labor and prevention from preterm delivery in order to lower these risks is always under serious concern.

The purpose of the present study was to compare the effect of nifedipine and nitroglycerin (NG) dermal patch for taking control of preterm labor.

**Method:** The study was performed as a randomized clinical trial on women who had been admitted in the hospital with the complaint of preterm labor. In one group, nitroglycerin (NG) dermal patch and in the other group, nifedipine were prescribed. Then the women of the 2 groups were followed up to delivery and compared according to arrest of labor for 2 hours, 48 hours, 7 days, gestational age at the time of delivery and their adverse effects. The primary outcome was to postpone delivery for 48 hours in order to have enough time for prescribing corticosteroids.

**Results:** The women of the 2 groups did not have significant difference according to age, BMI, primary Bishop Score, gestational age at the time of tocolytic therapy. In more women in NG group delivery was postponed for 2 hours (p=0.001), for 48 hours (p=0.016) and also, for 7 days (p=0.046), than nifedipine group. Apgar score of minute 5, (p=0.03) and neonatal weight (p=0.04), were more and cesarean deliveries, NICU admission and duration of NICU stay were less in NG group. Adverse effects were similar, minimal and negligible in both groups.

**Conclusions:** NG patch is more effective method for preterm labor control than nifedipine with minimal side effects.
frequently, are complete mole pregnancies coexisting with a normal fetus, with an incidence of 1 every 20,000–100,000 pregnancies. The management of this entity remains controversial.

Case: 35 years old woman, gravida 4 para 2, at 37 0/7 weeks of gestation admitted for scheduled primary cesarean section for intrauterine growth restriction and breech presentation of dichorionic - diamnionic twin gestation with complete mole and co-existing normal fetus.

Results: In our case elective cesarean section was performed at 37 0/7 weeks for breech presentation. It is also remarkable that the patient was able to reach early term, as most of this gestations end with a preterm delivery [7].

Conclusions: As noted by ACOG, there are no clear guidelines for the management of twin molar pregnancies so in our case, decision was made to have strict outpatient follow up with monthly thyroid function test and growth scans every 4 weeks, in an attempt to ensure fetal welfare by early diagnosis of possible complications. Antepartum care should be tailored to the patient condition.

P0455
BREECH DELIVERY AT TERM: DO THE PERINATAL RESULTS JUSTIFY A TRIAL OF LABOUR?
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Objectives: This retrospective study to compare neonatal mortality and morbidity in term singleton breech infants delivered either vaginally or by cesarean section.

Method: The maternal and neonatal records for all singleton term breech (> completed weeks of gestation) delivered at teaching hospital. All women were admitted in active labour, and continuous FHR monitoring was undertaken.

In this hospital, there is no policy of routine cesarean section for breech presentation and the choice between vaginal and abdominal delivery depends on the circumstances of each case except patients with footling breech and fetuses weighing > 3.80 kg.

Results: A total of 308 women delivered term singleton infants presenting by the breech. This represent about 3% of the total births during the study period. Of these 50 (16.2%) were delivered by elective cesarean, 109 (35.4%) by emergency cesarean section, and 149 (48%) vaginally. There were no differences in the ages and parity between these two groups. There were two intrapartum and three neonatal deaths in the group managed by vaginal delivery an incidence of 13 per 1000. There are two neonatal deaths delivered by C/S due to RDS, an incidence of 35 per 1000. There are two neonatal deaths delivered by C/S due to RDS, an incidence of 35 per 1000.

Conclusions: Careful case selection and labour management in a modern obstetrical setting may achieve a level of safety similar to elective C/S. Planned vaginal delivery of breech at term remains a safe clinical option that can be offered to women after providing them with clear, objective, and complete information. Many recent prospective reports of vaginal breech delivery that follow specific protocols have excellent neonatal outcomes. ECV is a safe alternative to vaginal breech delivery or C/S, reducing the C/S for breech by 50%.

P0456
A RARE CASE OF PLACENTA MESENCHYMAL DYSPLASIA
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Objectives: To increase awareness of clinicians regarding placental mesenchymal dysplasia (PMD), and it should be considered in the differential diagnosis of every placent al abnormality, especially in specific sonologic findings of enlarged cystic placenta.

Method: This is a case of an 18 year old Gravida 2 Para 0 (0–0–1–0), with an ultrasonographic finding of an enlarged cystic placenta, with pregnancy complicated with intrauterine growth restriction (IUGR) and oligohydramnios. TORCH panel was positive for cytomegalovirus (CMV) IgG. The prenatal diagnosis only included molar pregnancy with a live twin fetus and CMV infection. Postnatal evaluation of the placenta was done to confirm the diagnosis.

Results: Grossly, cut sections of the placenta revealed multiple cystic spaces filled with watery fluid. Microscopically, there were large hydropic villi and dilated thick-walled vessels without trophoblastic proliferation. Immunohistochemical study was further done and showed dysplastic villi that were immunoreactive to desmin and negative to smooth muscle actin (SMA) and Ki-67. These findings were consistent with placental mesenchymal dysplasia.

Conclusions: Placental mesenchymal dysplasia is a rare placental abnormality associated with adverse pregnancy outcome. Patients should be counselled regarding complications. Heightened surveillance with assessment of fetal well-being should be always be considered. A detailed histologic, immunohistochemical and also genetic analyses are essential for accurate diagnosis.

P0457
ABORTION HYSTERECTOMY AT 11 WEEKS’ GESTATION DUE TO UNDIAGNOSED PLACENTA ACCRETA (PA): A CASE REPORT AND REVIEW OF LITERATURES OVER THE PAST 20 YEARS
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Objectives: Herein we report a case of abortion hysterectomy at 11 weeks’ gestation due to undiagnosed first trimester placenta accreta. Also we reviewed medical literatures over the past 20 years for case reports of first trimester PA diagnosed after occurrence of severe bleeding during the abortive curettage or in the post abortive period.

Method: A Case report and a detailed review article of 23 similar case presented in English literatures over the past 20 years.

Results: In a survey of medical literatures over the past 20 years (23 cases) we found that regarding first trimester PA, which was diagnosed during the abortive curettage or in the post abortive period (before 12 weeks’ gestation), hysterectomy was the standard treatment.

Conclusions: Women at high risk of PA could be considered for detailed sonographic examination during the first trimester. Early diagnosis may allow earlier elective intervention that prevents maternal morbidity and mortality. Clear evidence guiding screening diagnosis and management are needed. Considering the rising rate of Cesarean deliveries, the incidence of PA in early gestation will increase.

P0458
DECREASED LEVELS OF UBE2Q1 AND CHIP IN THE PLACENTAS OF INFECTION-RELATED PRETERM BIRTH
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Objectives: Preterm birth has emerged as a major public health concern. Ubiquitin proteasome system (UPS) is speculated to be involved in the pathogenesis of infection-related preterm birth.

Method: In the present study, we examined the mRNA and protein levels of UBE2Q1 and CHIP in the placenta by immunohistochemistry, real-time RT-PCR and western blotting to explore the role of UPS in the infection-related preterm delivery.

Results: We found that the mRNA levels of UBE2Q1 (0.48±0.05 vs. 0.67±0.07, p=0.047) and CHIP (1.59±0.23 vs. 5.62±1.00, p=0.002) in the placentas of preterm delivery were significant lower than those of term delivery. The protein levels of UBE2Q1 (0.64±0.09 vs. 1.49±0.22,
Objectives: To determine the fetal outcome in pre-eclamptic women with high uric acid.

Method: This descriptive case series study was carried out in the department of obstetrics and gynaecology wards of Liaquat University Hospital Hyderabad for six months from 1st March 2013 to 30 August 2013.

Results: This study was carried out on 130 pre-eclamptic women. In the present study 73 (56.0%) mothers had normal serum uric acid levels (Non-hyperuricaemic and 57 (44.0%) mothers had higher serum uric acid (Hyperuricaemic). There was significant difference of serum uric acid levels (p<0.0001) between study groups. Among 57 patients who had hyperuricaemia, 54 (95.0%) babies had IUGR. Among 73 patients who had no hyperuricaemia, Intrauterine growth restriction was present in 46 (63.0%) babies. This difference was statistically significant (P-Value 0.02).

Conclusions: High uric acid associated with PE is an important risk factor for poor fetal outcome.

P0462
EFFECT OF PARITY ON MATERNAL AND NEONATAL OUTCOME IN TWIN GESTATIONS
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Objectives: Evaluate the effect of parity on the maternal and neonatal outcome in women with twin pregnancy.

Method: Prospective comparative study, carried out in Baghdad Teaching Hospital, in Baghdad, Iraq. During 9 months duration (from April to December 2013), 140 women with twin gestation who were admitted for delivery to our unit, enroled to our study after fit certain inclusion and exclusion criteria. Seventy women were nuliparous and seventy women multiparous.

Results: Anemia and gestational diabetus mellitus were significantly more common among multiparous group compared to nuliparous women (anemia in nulliparous 55% versus 83% in multiparous - gestational diabetus in nulliparous 1% versus 13% in multiparous). The neonates of nuliparous women had significantly lower mean birth weight for both twines and twine B compared to twine A, if we compared to multiparous women (nulliparous twine A 2180 versus multiparous twine A 2317g – nulliparous twine B 1898g versus multiparous twine B 2054g). Significant higher mortality in early postnatal period among primiparous newborn babies compared to multiparous (13% versus 8%).

Conclusions: Nulliparity is significantly less likely to have anemia or gestational diabetus during pregnancy but significantly more likely to have lower birth weight and more likely to die in early postnatal period.
Objectives: To determine the loading dose of magnesium sulfate as effective as standard regime (loading with maintenance doses) in controlling convulsion in eclampsia.

Method: This cross sectional clinical trial was conducted in Department of Obstetrics and Gynaecology, Chittagong Medical College & Hospital, Chittagong, during 1st January 2010 to 31st December, 2010. Eclamptic patients who were eligible for magnesium sulfate (MgSO4) therapy were randomly selected. Besides anticonvulsant, patients of both the groups was managed by the same protocol for eclampsia management, prepared by Eclampsia Working Group, Bangladesh. Efficacy of both the regimes were assessed by measuring the rate of recurrent convulsion.

Results: There were no significant differences between the two groups in terms of age (23.0±4.4 vs 22.3±3.0 years), parity (70.0% vs 64.0% primi), type of eclampsia (72.0% vs 78.0% antepartum eclampsia), number of convulsions (2.9±1.6 vs 4.8±2.5 times), gestational age (35.5±3.3 vs 35.8±2.5 weeks), SBP (164±21.3 vs 161±19.5 mmHg) and DBP (107.4±24.9 vs 109.2±20.8 mmHg). Recurrent convulsion rate was almost the same in both the groups (10.0% in study group vs 20.0% in control, P>0.05). 80% patients of the study group and 76.0% of the control group regained consciousness after initiation of treatment.

Conclusions: Only loading dose of MgSO4 can control convulsion in eclampsia and it is as effective as standard regime.

Objectives: The aim of this study was to determine the association between plasma homocysteine level and bad obstetric history, and is relevance as a potential marker for predicting bad obstetric history.

Method: This cross-sectional study was conducted in Department of Obstetrics & Gynaecology, Chittagong Medical College Hospital over a period 6 months from 01 November 2013 to 30 May 2014 to observe the maternal and fetal outcome of grandmultipara. A total of 100 pregnant women who had previously given birth at least 5 or more viable babies with or without labor pain at last trimester of antepartum period were included in the study. Data were processed and analyzed using Statistical Package for Social Sciences; version 11.5. Descriptive statistics were used to analyze the data.

Results: Total 154 grandmultiparous women were admitted (prevalence 2.7%). Common antepartum complications were preeclampsia (16%), Eclampsia, placenta praevia and oligohydramnios (around 6% each). IUGR and abruptio placenta were 4%. Among intrapartum complications 23% had preterm labor, 13% malpresentation, 12% obstructed labor and 6% ruptured uterus. Hand prolapse and prolonged labor each was 6%. Multiple pregnancies were 4%. Caesarean sections were needed in 41%, 18% wound infection, 9% postpartum haemorrhage and 4% puerperal sepsis. 2 mothers died with postpartum complications. Still born, neonatal death and intrauterine death were 12%, 10% and 4% respectively. LBW were 25% and birth asphyxia 27%.

Conclusions: It is concluded from our study that grandmultipara is still an obstetrical challenge. In developing countries like Bangladesh the tradition of early marriage results high birth rate and so many young women become grandmultiparas. Excellent maternal and perinatal mortality is possible with improvement in health care system. Increasing women’s literacy and making provision of safe and effective contraceptive will hopefully reduce the incidence of grandmultiparity.

Objectives: To study the maternal morbidity and mortality and fetal outcome in patients with hypertensive disorders in pregnancy. 

Method: A descriptive cross sectional study of all pregnant patients with hypertension admitted in antenatal ward at B.P.Koirala Institute of Health Sciences, Dharan, Nepal 

Results: Total of 96 patients were enrolled, comprising 2.4% of total deliveries. Mild preeclampsia was in 36.5% of patients, 53.1% had
severe preeclampsia and 10.4% had gestational hypertension. 46.9% of patients delivered vaginally while 44.8% underwent cesarean section. The maternal complications found were: 21.9% patients had ascites, 15.6% seizures, 13.5% postpartum hemorrhage, 7.3% abruption, 4.2% each of acute renal failure and acute pulmonary edema, 2.1% HELLP syndrome and 1% DIC. There were 104 babies delivered including 8 twin pregnancy. 2/3rd were preterm while 50% had low birth weight. Antepartum/intrapartum death was found in 11.5% of the babies. 27.8% babies required admission. Conclusions: Hypertensive disorders in pregnancy are common and also associated with significant maternal and fetal morbidity and mortality and hence deserve immense concern in obstetric practice.

P0467 PREVALENCE AND PREDICTORS OF ALCOHOL CONSUMPTION DURING PREGNANCY IN A LOW INCOME COUNTRY
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Objectives: This study determined the prevalence and predictors of alcohol consumption during pregnancy in Enugu, South-eastern Nigeria.
Method: It was a cross-sectional study of 261 consecutive parturients at the University of Nigeria Teaching Hospital, Enugu, Nigeria. Statistical analysis was both descriptive and inferential at 95% confidence level using the Statistical Package for Social Sciences (SPSS) computer software version 16. A p value of less than 0.05 was considered statistically significant.
Results: The prevalence of alcohol consumption in pregnancy was 22.6%. Occasional alcohol drinkers were 83.1% (n=49), while 16.9% (n=10) drank regularly (also binge drinkers). Approximately 35.6% (n=93) of the respondents were aware of the harmful effects of alcohol on the fetus, of whom 30.1% (n=28) got their information from health professionals. Younger age of ≤30 years, and being of the Anglican denomination were factors significantly associated with alcohol consumption during pregnancy after adjusting for other variables in the multiple logistic regression analysis (p<0.05).
Conclusions: The prevalence of alcohol consumption in pregnancy among women in Enugu, Nigeria is high. The predictors of alcohol consumption in the study population were younger age of ≤30 years and belonging to the Anglican denomination. There is need for health professionals in Enugu to intensify efforts at counseling pregnant women on the deleterious effects of alcohol consumption during pregnancy.

P0468 PROFILE OF BIRTH IN HIGH RISK MATERNITY REFERENCE AT BAIXADA FLUMINENSE, RIO DE JANEIRO, BRAZIL
A.T. Derraik Barbosa, B. Ferraro Fernandes, D. Ribeiro Vallim, L. Teixeira Abreu, H.J. Bastos Setta. Hospital da Mulher Helonelida Studart, Rio de Janeiro, Brazil
Objectives: – Elucidation of technical indicators of humanization in the Unit (2014); – Strategies and action plans for progressive and continued implementation of best practices in childbirth.
Method: Survey and analysis of the following health care indicators of patients admitted at a tertiary care teaching hospital, in the Department of Obstetrics & Gynecology, King George's Medical University, Lucknow, India over one year period. The study was approved by institutional ethics committee.
Results: Of the 6422 deliveries during the period, 21 met the criteria of morbid adherent placenta (MAP). The incidence of MAP was 1 per 306 deliveries. Amongst them 57.1%, 23.8% and 19.0% had accreta, increta and percreta respectively. The mean age of women was 29.0 years. Previous LSCS with placenta previa was the commonest risk factor. Of all, 85.7% underwent cesarean hysterectomy. There were 5 maternal deaths. The mean gestational age and birth weight were 31.9 weeks and 1859.5 g respectively. 8 neonates had mean 5 minute Apgar score of 8, 9 neonates required NICU transfer and there were 4 stillborn fetuses.
Conclusions: Morbid adherent placenta is associated with poor maternal and perinatal outcome.

P0469 DEMOGRAPHIC PROFILE AND FETO-MATERNAL OUTCOME IN WOMEN WITH MORBID ADHERENT PLACENTA: OBSERVATIONS FROM A NORTH INDIAN TEACHING HOSPITAL
R. Singh, Y. Pradeep. King George’s Medical University, Lucknow, India
Objectives: To evaluate the demographic profile and feto-maternal outcome in women with morbid adherent placenta.
Method: It was a retrospective evaluation of case series of clinically suspected and/or histologically confirmed cases of morbid adherent placenta admitted at a tertiary care teaching hospital, in the Department of Obstetrics & Gynecology, King George’s Medical University, Lucknow, India over one year period. The study was approved by institutional ethics committee.
Results: Of the 6422 deliveries during the period, 21 met the criteria of morbid adherent placenta (MAP). The incidence of MAP was 1 per 306 deliveries. Amongst them 57.1%, 23.8% and 19.0% had accreta, increta and percreta respectively. The mean age of women was 29.0 years. Previous LSCS with placenta previa was the commonest risk factor. Of all, 85.7% underwent cesarean hysterectomy. There were 5 maternal deaths. The mean gestational age and birth weight were 31.9 weeks and 1859.5 g respectively. 8 neonates had mean 5 minute Apgar score of 8, 9 neonates required NICU transfer and there were 4 stillborn fetuses.
Conclusions: Morbid adherent placenta is associated with poor maternal and perinatal outcome.

P0470 CORRELATIONS BETWEEN LOW LEVELS OF PIBF WITH THE OCCURRENCE OF PRETERM LABOR IN PREGNANT WOMEN WHO EXPERIENCE PARTUS PREMATURUS IMMINENS
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Objectives: To identify the relationship between low levels of PIBF with the incidence of preterm labor in pregnant women who experienced PPI.
Method: Observational study in the form of Analytic Cohorts performed prospectively in the delivery room and obstetrical care Dr. Saiful Anwar Hospital Malang and Bangil. This research will be start from September with total sample. Populations is pregnant with PPI who went to delivery room Dr. Saiful Anwar Hospital Malang, and RSU Bangil in accordance with predetermined inclusion criteria. First step of PIBF test is to determine the amount used in the microtiter well prepared by the laboratory physiologist Brawijaya Univ. Absorbance value readings done at OD 492nm.
Results: To determine relationships between two variables we use Spearman rho correlation coefficient of 0.806 means that relationship between two variables is very strong, because value of Spearman rho correlation coefficient is positive (+), means that lower levels of PIBF hence higher risk of preterm delivery in pregnant women who experience PPI. ROC curve obtained with the intersection of the sensitivity...
value spesificity value lies in the 0.1. this value is used as guidelines for cut off point PIFB levels. Values are obtained PIFB levels lie between 23.3265 to 23.6545, the average value of the cut off point at 23.4905.

**Conclusions:** There were very strong relationships among low levels of PIFB with the incidence of premature delivery in pregnant mothers who experienced lower levels of PPI PIFB means that higher risk of preterm delivery in pregnant mothers who experienced the PPI. Based on other research we also get cut off point of new urinalysis of preterm delivery in pregnant mothers who experienced the PPI. Levels in pregnant women who had PPI on 23.4905 ng/m, which can be assumed that pregnant women who experience levels of PPI with PIFB urine pregnancy more than 23.4905 can be maintained, if the following urine concentration 23.4905 PIFB hence more frequent premature labor.

**P0471**

**OPTIMAL URINARY CATHETERIZATION TECHNIQUE IN LABORING WOMEN WITH TYPE III FEMALE GENITAL MUTILATION**

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**Objectives:** Urinary catheterization in women with Type III female genital mutilation (FGM) has always been challenging. There is a lack in the literature regarding the best and different approaches that can achieve this safely and avoid defbulation. The aim of this study is to discover the optimal urinary catheterization technique in laboring women with Type III FGM.

**Method:** Randomization of 18 women with Type III FGM presenting in labor to King Abdulaziz University Hospital, Jeddah, Saudi Arabia from December 2013 to April 2014. 8 Women (44.4%) were catheterized using the metal retractor technique and 10 women (66.6%) using the finger technique.

**Results:** The mean age of the presenting women was 30.6 (±5.6 SD), and mean parity 2.4 (±4.0 SD), none of which reported any difficulty voiding antenatally. Urinary catheterization was easily and successfully achieved in all women without resorting to defbulation. However, the metallic retraction technique was reported more uncomfatable in 12.5% of the women in that group. There was no catheter related infections reported in either group.

**Conclusions:** Urinary catheterization for women in different stages of labor can be safely and effectively achieved with either method, without the need of defbulation.

**P0472**

**NEONATAL BRACHIAL PLEXUS PALSY: INCIDENCE, PREVALENCE, AND TEMPORAL TREND**

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**Objectives:** Epidemiological knowledge of the incidence, prevalence, and temporal changes of neonatal brachial plexuses palsy (NBPP) should assist the clinician, avert unnecessary interventions, and help formulate evidence-based health policies.

**Method:** A summary of 83 publications in the English language with over 37 million births and 24,000NBPPs is notable for six things.

**Results:** First, the rate of NBPP in the US and other countries is comparable: 1.5 vs. 1.3 per 1000 total births, respectively. Second, the rate of NBPP may be decreasing: 0.9, 1.0 and 0.5 per 1,000 births for publications before 1990, 1990–2000, and after 2000, respectively. Third, the likelihood of not having comconitant shoulder dystocia with NBPP was 76% overall, though it varied by whether the publication was from the US (78%) vs. other countries (47%). Fourth, the likelihood of NBPP being permanent (lasting at least 12 months) was 10–18% in the US-based reports and 19–23% in other countries.

**Conclusions:** Fifth, in studies from the US, the rate of permanent NBPP is 1.1–2.2 per 10,000 births and 2.9–3.7 per 10,000 births in other nations. Sixth, we estimate that approximately 5000 NBPPs occur every year in the US, of which over 580–1050 are permanent, and that since birth, 63,000 adults have been afflicted with persistent paresis of their brachial plexus. The exceedingly infrequent nature of permanent NBPP necessitates a multi-center study to improve our understanding of the antecedent factors and to abate the long-term sequela.

**P0473**

**MACROSMIC BIRTH: A SURVEY OF MATERNAL CHARACTERISTICS AND FETAL OUTCOME**

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**Objectives:** To evaluate the association of maternal characteristics and macromomous births.

**Method:** A case control comparison of maternal characteristics and pregnancy outcome of macromomous deliveries and selected normal birth weight deliveries.

**Results:** The mean maternal weight and gestational age of mothers with macromomous deliveries was higher compared to the control group, (85.87±19.39kg vs 74.92±19.11kg P<0.01; and 41.51±4.6 vs 39.02±1.29, P<0.001). Caesarean section rate was higher in the macromomous deliveries (41.2% vs 12.5%, P<0.001). Asphyxia and shoulder dystocia occurred more in macromomous babies (P<0.001). Majority of the asphyxiated babies in the study group were following vagina delivery compared to caesarean delivery, (65.6% vs 34.4%) p=0.001. There were 3 cases of still birth in the macromomous deliveries but no maternal deaths.

**Conclusions:** Macromomous births could be tragic. Although delivery outcome seems better with a caesarean section, good fetal outcome can only be assured on the premise of astute labour and delivery management.

**P0474**

**A CASE REPORT: OBSTETRIC OUTCOMES AND COMPLICATIONS AFTER VAGINAL RADICAL TRACHELECTOMY (VRT)**

W.K. Tan, E.L. Tan, L.K. Tan. Singapore General Hospital, Singapore, Singapore

**Objectives:** Pregnancy after radical trachelectomy is not uncommon nowadays as women choose to delay child bearing age for professional and financial reasons. This has led to an increased number of fertility sparing surgeries (VRT) performed for early cervical cancer. In this case report, we aim to identify and recognize the possible obstetric complications in pregnant women after radical trachelectomy (RT) and learn from it.

**Method:** We report a healthy 35 year-old primigravid with a history of vaginal trachelectomy, cervical cerclage and laparoscopic pelvic lymphadenectomy done for stage 1b1 cervical cancer. She had a spontaneous conception with appropriate antenatal care. She presented at 23+5 weeks gestation with leaking of liquor. PPROM was confirmed and her ultrasound showed oligohydramnios. She was admitted and despite intravenous antibiotics, developed chorioamnionitis. Emergency caesarean section was performed due to maternal sepsis from chorioamnionitis. The baby was admitted into NICU after intubation due to extreme prematurity. Maternal post-op recovery was complicated by wound infection that required extended antibiotics and regular wound care.

**Results:** Literature review has shown that pregnancies are possible after RT, with 41–79% of women able to conceive subsequently. However, the obstetric outcomes reported an increased incidence of preterm labour, chorioamnionitis, PPROM and miscarriages with only 70–75% of pregnancies delivered at term. RT attributes to the increased incidence of obstetric complications. Therefore, all pregnant women with history of cervical surgery should be followed up vigilantly by a high-risk obstetric team to reduce the risks and provide
Conclusions: At present, expert opinion suggests all pregnancies after radical trachelectomy should be managed in a high risk obstetric clinic with close surveillance owing to its recognised obstetric complications. Erythromycin should be given in cases of PPROM based on the RCOG green-top guidelines and caesarean section arranged in the event of chorioamnionitis. While classical caesarean section with a low vertical incision is recommended due to the risk of later extension of a transverse incision leading to uterine vessel injury and massive haemorrhage, the decision should be individualized on case by case basis. Senior obstetrician input is necessary.

P0476
BIRTH DEFECT OF THE NOSE DUE TO DRUG INDUCED EMBRYOPATHY: A CASE SERIES

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Objectives: Neonatal outcome of four cases of nasal embryopathy whose mothers were on warfarin therapy, and of one mother on Imatinib.

Method: Five fetuses were diagnosed on ultrasound with depressed nasal bridge and small nasal bones; couples were counselled regarding the abnormality in the child.

Results: One couple opted for terminating the pregnancy at 17 weeks of gestation. All rest 4 babies had flat faces, depressed nasal bone. One baby needed permanent tracheostomy, other three needed ventilatory support and were stable after a couple of weeks.

Conclusions: Prenatal Ultrasound led to early diagnosis of the nasal hypoplasia in high risk cases. Delivery at our tertiary care center, immediate neonatal tracheostomy and ventilatory support and nasal care resulted in successful outcome in all fetuses where pregnancy was carried on.

P0477
TWIN PREGNANCY – ONE ANENCEPHALY AND ONE NORMAL BABY

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Objectives: This case is presented here for its relative rarity.

Method: A primigravida lady of 22 years attended the OPD with watery discharge P/V for last 2 hours at her 33 weeks of pregnancy. She was mildly anaemic and normotensive. Abdominal examination revealed that SFH was 35 cm. Liquor seems to be more than normal clinically. More than two foetal pole, multiple foetal parts and two foetal heart sounds were audible. P/V examinations revealed that watery discharge coming through external os, cervix soft, os closed. USG findings showed live twin pregnancy. One normal and one anencephaly dianometric, dichorionic with mild polyhydramnios.

Results: Labour pain was started spontaneously. She delivered P/V one baby of 1.2 kg and another baby of 500 gm which was anencephalic. Both are living. Anencephalic baby was died 30 minutes after birth. And another baby was admitted in NICU and discharged at the age of 6 weeks. Patient’s condition was good and was discharged on 3rd postnatal day.

Conclusions: Twin pregnancy is common. Twin with congenital anomaly is also common. But one normal and one with congenital anomaly is relatively uncommon.

P0478
BIOCHEMICAL MARKER FOR FETAL OUTCOME IN PREGNANCIES COMPLICATED BY INTRAUTERINE GROWTH RESTRICTION

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Objectives:
• To analyze Lactic acid dehydrogenase as a predictor of IUGR;
• To analyze the diagnostic efficiency of LDH levels in prediction of etiology of IUGR;
• To study the diagnostic efficiency of LDH levels with fetal outcome in IUGR infants.

Method: This prospective case control study was done between a period from July 2007 to Dec 2014 at QMH KG MU, and Department of M&RH, SGPGIMS, Lucknow. 490 women attending the antenatal clinics were recruited between 32–36 weeks for the analysis for serum Lactic dehydrogenase levels in triplicate. Maternal and fetal outcome was noted. The statistical analysis included ANOVA, chi square test and student’s t-test. ROC curve was used to attain the sensitivity and specificity of the test. Keeping confidence interval at 95%, significance was determined if p-value was < 0.005.

Results: Out of the patients recruited, 210 cases and 180 controls could be followed for outcome, rest of them defaulted for various reasons. The mean serum LDH in mothers was 296.334 IU/ml in the control arm whereas the mean was 456.36 IU/ml in the study group (f-test=0.000002; p=0.0024). At the cut off of 315IU/m, the sensitivity was 72.5% and specificity was 60.5%.

• Maternal serum LDH levels are significantly raised in the study group.
• Increased levels are associated with increasing severity of the condition.
• Fetal morbidity is increased with increase in levels of serum LDH.

Conclusions: Maternal serum LDH is a good prognostic marker to predict for maternal and fetal outcome. It can be used in regular risk scoring systems for methodological analysis of the prognosis of outcome at delivery.
P0479
PREGNANCY OUTCOMES IN PREGNANT WOMEN WITH RETROCHORIAL HEMATOMA IN THE I TRIMESTER

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Objectives: Several researchers agree that small, asymptomatic subchorionic hematomas do not impair the patient's prognosis, according to others researchers, pregnancy with retrochorial hematoma ends in miscarriage in a high percentage of cases, in the case of prolongation of pregnancy, patients with retrochorial hematoma have higher risk of maternal and neonatal complications. However, even among those who find a connection between retrochorial hematoma and late complications of pregnancy, there is no unanimity in the nature of these complications. The objective is to study the peculiarities of pregnancy and its outcomes in patients with subchorionic hematoma in the I trimester.

Method: The study was conducted in the Rostov-on-Don State “Perinatal Center” for the period from 1 January 2013 to 1 January 2015. The study group included 53 pregnant women with subchorionic hematoma in a period of 6 to 12 weeks (group I). The control group (group II) were 63 apparently healthy pregnant women. We analyzed the mode of delivery (vaginal delivery, cesarean section) and the frequency of perinatal complications (preterm delivery, fetal growth retardation, placental previa and accrete, premature detachment of normal placenta, premature rupture of membranes, the abnormal discharge of placenta, hypotonic bleeding).

Results: The frequency of cesarean section and vaginal delivery in the study group was 65% (34) and 35% (18), in the control group – 38% (24) and 62% (39), respectively. Premature birth in the study group was observed in 13% (7), in the control group – in 2% (1). Chance of cesarean delivery [relative risk (RR): 1.7884; confidence interval (95% CI): 1.1741, 2.7240; odds ratio (OR): 3.0694, 95% CI: 1.4285, 6.5952; p-value = 0.00357] and risk of preterm birth [RR 1.1339; 95% CI: 1.0162, 1.2652; OR 9.4348; 95% CI: 1.1215, 79.3733; p-value = 0.01033] in the study group was significantly higher than in the control group.

Conclusions: The analysis of perinatal outcomes in patients with retrochorial hematoma showed that the risk of preterm birth is higher in 9.4348 times compared to apparently healthy women (without RHG). Besides, the chance of delivery by cesarean section in the study group is 3.0694 times higher.

P0480
INVESTIGATION OF RELATIONSHIP BETWEEN INFERTILITY TREATMENT AND THE INCIDENCE OF GESTATIONAL HYPERTENSION

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Objectives: Gestational hypertension is one of the main cause of high maternal and perinatal morbidity and mortality. There have been some reports describing that infertility treatments may elevate the risk for gestational hypertension and preeclampsia. However, it remains unknown which types of treatments may have high risk of gestational hypertension. We have reviewed the cases in our hospital and investigated relationship between infertility treatments and the incidence of gestational hypertension.

Method: 1373 cases of delivery in our hospital in 2014 were reviewed retrospectively. Any cases of stillbirth, multiple pregnancy and uncertainty of their treatments were excluded. We compared the incidence of gestational hypertension in spontaneous pregnancies and in those with infertility treatments, such as clomiphene, gonadotropin, intrauterine insemination (IUI), in vitro fertilization/embryo transfer (IVF-ET), intracytoplasmic sperm injection (ICSI) and oocyte donation.

Results: The incidence of gestational hypertension was 6.09% (82/1347) in all; 5.56%, 0%, 0%, 8.62%, 8.77%, 8.14% and 60% in natural pregnancy, clomiphene, gonadotropin, IVF-ET, ICSI, and oocyte donation, respectively. Oocyte donation had significantly higher morbidity of gestational hypertension.

Conclusions: This review suggested that infertility treatment did not have any risk for following gestational hypertension except oocyte donation.

P0481
PATHOGENIC PROPHYLAXIS PRE-ECLAMPSIA IN PATIENTS WITH THROMBOPHILIA AND PRE-ECLAMPSIA IN ANAMNESIS

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Objectives: Evaluation of effectiveness of antithrombotic prevention of recurrent preeclampsia in women with thrombophilia.

Method: 107 women with genetic and acquired forms of thrombophilia and pre-eclampsia (PE) in anamnesis: Group I: 55 patients with PE in anamnesis – prophylaxis treatment was initiated since the fertile cycle and during pregnancy. Group II: 52 patients with PE in anamnesis – prophylaxis treatment was initiated during pregnancy (from 6 to 13 weeks of gestation). Control group – 65 women with uncomplicated pregnancy.

Lab methods: DIC-syndrome markers: D-dimer, TAT, prothrombin time, prothrombin fragments F1+2, level of fibrinogen, AT III, aggregation of platelets, homocystein level, function of protein C, APA, gene tests.

Results: IUGR was in 11 patients (4 groups, I and II – 3 cases). PE moderate and severe was prevented. Preterm caesarean section was not in group I and control group; in group II in 2 (5%) cases. Preventive therapy include: LMWH (Enoxaparin 20–60 mg), antioxidants, vitamin B, folic acid, aspirin. Patients with APA received natural progesterone. LMWH was discontinued 24 hours prior cesarean section and resumed after 6–8 hours after birth. In all cases was performed caesarian section, in control group in 12 (24%) cases. Alive and healthy children were born (100%).

Conclusions: All the patients with PE in anamnesis need to be tested for thrombophilia (acquired and genetic). Detection of thrombophilia (acquired, genetic or combined) in the patients with PE in anamnesis gives us the possibility for pathogenetic justification of effective prevention of this complication in subsequent pregnancies. In order to prevent the repeated PE in subsequent pregnancy one need to start the therapy from fertile cycle, continuing it during the pregnancy, childbirth and in postnatal period. Therapy shall include LMH, group B vitamins, antioxidants and micronized progesterone.

P0482
HEPATIC HYDATID CYST DURING PREGNANCY

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Objectives: We present a case of hydatid disease of the liver which was diagnosed late in pregnancy and was successfully treated surgically at Hospital mongi slim, marsa.

Method: We give details about the case of one patiente managed in
our unit with a hydatid liver cyst diagnosed for the first time during pregnancy. We reviewed the literature using pubmed and medline search.

Results: A 24-year-old, was admitted at 27 weeks because of fortuitous diagnosis of Hepatic hydatid maternal cyst during the pathology scan.

On examination a palpable abdominal tumor was found extending in the right upper abdomen. On ultrasound showed a hepatic tumor 20cm in diameter filling the right hypochondrium. Fetus had a multiple renal cysts right. The rest of the ultrasound examination was normal. Our decision was to deliver the patient by cesarean section at 37 weeks. The newborn had right renal dysplasia.

Two month after delivery, women was was operated on his Hepatic hydatid cyst.

Conclusions: The hydatid cyst is rare during pregnancy. Ultrasonographic examination is the gold standard in the diagnosis of hydatid cysts during pregnancy. In addition to showing the pregnancy status, sonography reveals the location, number, size of the hydatid cysts and their relation to other abdominal viscera. Serological tests are less reliable in pregnancy because of the usual immunological changes. Hydatid cystic disease can be prevented by adopting public health measures to eradicate infected animals and dogs in order to break the cycle of transmission.

P0483
ASSOCIATION BETWEEN THE INCREASING INCIDENCE OF PLACENTA PREVIA AND IVF TREATMENT IN NULLIPAROUS WOMEN

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Objectives: To describe the incidence of placenta previa in nulliparous women and to assess risk factors between nulliparous and multiparous women with placenta previa after adjustment for previous dilatation and curettage, in vitro fertilization (IVF), smoking, previous cesarean section and maternal age.

Method: A retrospective study was conducted based on the descriptive and statistical analysis risk factors of placenta previa and maternal and fetal prognosis of 184 patients who underwent cesarean section for placenta previa between January 2010 and December 2014 in Busan Paik hospital. We divided the patients into two groups, nulliparous women and multiparous women, and compared with cause of previa and prognosis.

Results: Eighty nine women was nulliparous women and 95 patients was multiparous women. Nulliparous women were significantly younger than multiparous women (32.4±3.4 years old vs 34.7±4.5 years old, P=0.0001). Placenta previa with no risk factor more occurred in nulliparous women (62.1% vs 37.9%, P=0.0097). In the multiple logistic regression analysis the strongest independent risk factor of placenta previa was IVF between nulliparous and multiparous women (75.0% vs 25.0%, P=0.024). There was no significant difference in the incidence of postpartum hemorrhage (PPH) but was significantly different in management. Cesarean hysterectomy for PPH was significantly increased in multiparous women (3.4% vs 82.4%, P=0.0161).

Conclusions: Increasing maternal age and in vitro fertilization (IVF) treatment are all risk factors for placenta previa in nulliparous women in this study. Therefore the strategies to prevent placental previa in nulliparous women undergoing IVF are urgently needed.

P0484
A STUDY OF CLINICAL CHARACTERISTICS, PREDICTABILITY AND FETOMATERNAL OUTCOME OF OBSTETRIC PATIENTS IN INTENSIVE CARE AND HIGH DEPENDENCY UNIT

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Objectives: To assess the clinical characteristics of obstetric patients requiring admission to the ICU and HDU in a tertiary referral hospital and their maternal and perinatal outcome in order to identify their adverse prognostic factors and clinical outcome.

Method: Prospective study conducted over 50 patients in high dependency and intensive care unit at a tertiary care hospital over a period of 5 years (October 2009–October 2014). Inclusion criteria: critically ill women admitted during pregnancy as well as first 6 weeks of the postpartum period. Data collection and analysis was done.

Results: 44 patients belonged to the age group of 20–30 years accounting for 88% of admission. 30 patients i.e. 60% of patients were primipara and 20 patients i.e. 40% were multipara. 35 patients i.e. 70% were admitted in the ante partum period, remaining 30% i.e. 15 patients were in the postpartum period. 42 cases were referred from another institution. 20 cases accounting for 40% were in the gestational age of 30–36 weeks. Caesarean section was an important risk factor amounting to 56% of patients. 12 cases i.e. 24% had undergone emergency hysterectomy due to PPH.

Conclusions: The findings of the present study reinforce the statement by the WHO that “there is a story behind every maternal death. Understanding the lessons to be learnt can help to avoid such outcomes”.

P0485
PREGNANCY AND DELIVERY IN PATIENTS WITH HOMOZYGOUS AND COMPOUND HETEROZYGOUS THROMBOPHILIA

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Objectives: Strategies of pregnancy and delivery management in women with thrombophilia remain understudied. Our aim was to evaluate the efficiency and safety of antithrombotic prophylaxis in patients with severe genetic thrombophilia for prevention of thrombotic and obstetric complications.

Method: From 2000 to 2014 we studied 18 patients with homozygous FV Leiden mutation, 3 patients with homozygous prothrombin G20210A mutation and 12 patients with a combination of heterozygous FV Leiden and prothrombin G20210A mutations. Thrombotic history was complicated in 3 patients, 8 patients were primapara. 17 patients had a history of obstetric complications (fetal loss syndrome, severe preeclampsia, placental abruption, intrauterine growth restriction). In all patients thrombophilia was diagnosed before pregnancy.

Results: All patients received low molecular weight heparin (LMWH) guided by D-dimer level in conception period and during pregnancy. LMWH therapy was continued for 6 weeks after delivery. In 23 patients cesarean section was performed. No one had severe obstetrics and hemorrhagic complications. All pts were delivered at term and all babies were alive.

Conclusions: LMWH was effective and safe for prevention of obstetric and thrombotic complications in women severe genetic thrombophilia: homozygous FV Leiden and prothrombin G20210A mutations and compound heterozygous FV Leiden and prothrombin G20210A mutations.
P0486
ACQUIRED ADAMTS-13 DEFICIENCY AND RECURRENT THROMBOSIS IN PREGNANCY

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Objectives: We present an unclear clinical case of thrombotic storm associated with pregnancy.

Method: Patient Z. 24 years old, at presentation in 2007 pregnancy 15 weeks. In 2005 after the emergency cesarean section for obstetric indications developed PE, treated by LMWH. After the artificial abortion in 2006 recurrent PE was diagnosed. After acute treatment with LMWH patient was switched to warfarin.

Results: FV Leiden, prothrombin G20210A, protein S, C, antithrombin III deficiency - negative, normal homocystein level. Repeat testing for antiphospholipid antibodies, anticardiolipins, LA, anti-beta2-glycoprotein was negative. Pregnancy was followed to term under therapeutic doses of LMWH guided by D-dimer and elective c.s. was performed. We continued LMWH 6 weeks postpartum and then replaced by warfarin (INR 2.0–3.0). In 2009 patient suffered ischemic stroke in next pregnancy, which was terminated at 10 weeks and switched to LMWH. After 2 weeks patient discontinued LMWH and suffered recurrent TIA. In 2012 we determined ADAMTS-13 inhibitor in titer of 55 IU/ml.

Conclusions: Despite history of “thrombotic storm” patient has no strong thrombogenic thrombophilia. Determining of ADAMTS-13 activity and inhibitor may be a useful tool in case of otherwise unexplained pregnancy-related thrombosis.

P0487
PREGNANCY AND DELIVERY IN PATIENTS WITH HISTORY OF VENOUS THROMBOSIS AND ISCHEMIC STROKE

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Objectives: Despite intensive research, arterial and venous thromboembolism (VTE) still account for significant maternal mortality and morbidity.

Our aim was to determine thrombophilia in patients with history of thrombosis and to evaluate the efficiency of antithrombotic prophylaxis.

Method: Group I: 57 (28.7±4.2 years) women with history of VTE, group II: 59 (32±5.5 years) women with history of stroke and 60 healthy pregnant women (controls) were screened for genetic thrombophilia and antiphospholipid antibodies (APA). Subgroup Ia (n=20 with history of VTE) and subgroup IIa (n=22 with history of stroke) received prophylaxis with low molecular weight heparin (LMWH) in preconception period, during pregnancy and at least 6 weeks postpartum. In 17 women with history of VTE (subgroup Ib) and 20 women with history of stroke (subgroup IIb) LMWH was started from II-III trimester.

Results: In the group I thrombophilia was detected in 94.1%; FV Leiden (+/-) (23.5%), prothrombin G20210A (+/-) (13.7%), multigenic fibrinolytic defects (64.7%); APA (49%), hyperhomocysteinemia (45%) (p<0.001 vs. control). Thrombophilia was detected in 88.2% with history of stroke, including fibrinolysis defects (75.6%), FV Leiden (+/-) (21.6%), prothrombin G20210A (+/-) (11.7%), APA (41.2%; p<0.001), hyperhomocysteinemia (19.6%; p=0.05). In subgroup Ia and IIa no one had severe obstetric complications. All pts were delivered at term and all babies were alive. In subgroup Ib and IIb moderate to severe obstetric complications were noted (43.7% and 47%) (p<0.05 vs subgroup Ia and IIa).

Conclusions: Thrombophilia might be the essential pathogenetic mechanism of thrombosis in women of childbirth age. LMWH was effective for prevention of recurrent thromboembolism and obstetric complications. Women with personal or family history of thromboembolism or with history of obstetric complications should be screened for thrombophilia.

P0488
AN INITIAL EXPERIENCE OF USING PROPHYLAXIS INTRAUTERINE TAMPOONADE BY ZUKOVSKIY BALLOON AS A WAY FOR PREVENTION OF HEMORRHAGE DURING AND AFTER CESAREAN SECTION

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Objectives: Postpartum hemorrhage is still one of the major causes of maternal mortality around the world. Caesarean section increases the risk of hemorrhage several times. Ob/Gyns are looking for methods for reducing the incidence of obstetric hemorrhage.

Method: We have summarized our experience of using the Zukovskiy balloon for the prevention of hemorrhage in the group of patients at high risk in a big perinatal center in Tyumen region, Russia. The group included following patients: with two or more scars after CS, multiple pregnancy, placenta previa and placental abruption, fetal macrosomia, polyhydramnios.

The balloon is placed into the uterus cavity during CS after placenta delivery. After closing of wound the balloon is filled by sterile warm solution under the given pressure according to “communicating vessels” principle. In the post operation period the balloon removed through vagina.

Results: Among 117 cases of using prophylaxis intrauterine tamponade by Zukovskiy balloon, abnormal blood loss (more than 1000 ml) was detected in two cases - 1400 and 1600 ml respectively, that has required to use the additional B-Lynch’s compression sutures. All patients were discharged on day 4–5-th of postpartum period. There were no cases of postpartum inflection morbidity.

Conclusions: Prophylaxis uterine tamponade by Zukovskiy balloon is an effective method for preventing obstetric complication after caesarean section in a group of high risk patients for hemorrhage.

P0489
DISCORDANT FETAL GROWTH IN MONOCHORIONIC TWIN PREGNANCIES

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Objectives: Discordant fetal growth is a common complication of twin pregnancies. Because of the presence of two fetuses, the problem of intertwin growth discordance is unique consideration. Twin birthweight difference is an important factor for poor perinatal outcome. The degree of birthweight discordance that might be of great clinical importance in management of twin pregnancies is not yet established.

The aim of this study was to investigate the predictive value of fetal weight discordance as a risk factor associated with adverse perinatal outcomes.

Method: 55 patients with monochorionic diamniotic twin pregnancies with fetal weight discordancy were analyzed. All monochorionic pregnancies were divided into the groups according to the birthweight differences in twins (≤10%, >10–15%, >15–20%, >20–25%, >25%). Patients with short cervix at 19–21 w were treated with microwerved progesterone and/or Arabin pessary. Adverse perinatal outcomes included preterm delivery rate (≤34 weeks), IUGR, fetal distress, low Apgar score, perinatal death, pathological neonorosonographic findings.

Results: Birthweight discordance >20% was associated with the prematurity 21.6% vs 11.1% in discordancy ≤20%. Very early PD (jatrogenic - fetal distress) was in the highest discordancy. IUGR was diagnosed in 16.6% of twins with discordance ≤20%, in 30.3% in discordancy >25%. Fetal distress in IUGR group was six times higher com-
paring with the patients without IUGR (43.3% vs 6.3%). Single IUFD in two patients and the highest rate of low Apgar score – 33.3% was in the group with discordancy > 25%. Pathological neurosonographic findings were 33.3% and 46.3% in the twins with discordancy ≤ 20% and > 20% accordingly.

Conclusions: Thus fetal weight discordance (> 20%) is associated with the high risk of adverse perinatal outcomes. Monochorionic discordant twin pregnancies especially with IUGR require careful antenatal monitoring and timing of delivery.

**P0490**

**SUCCESSFUL CONSERVATIVE MANAGEMENT OF CESAREAN SCAR PREGNANCY**

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**Objectives:** To give details about early diagnosis features and medical treatment modalities of Cesarean scar pregnancies.

**Method:** We report two cases of cesarean scar pregnancies (CSP) diagnosed and managed in our unit.

**Results:** In the first case, the diagnosis of a 7-week CSP was made sonographically in a 38-year-old woman. The patient received one ultrasound guided injection of Methotrexate (MTX) in the amniotic fluid, followed, by an equivalent dose of MTX intra muscularily. The complete disappearance of the gestational sac took 35 days after beta-human chorionic gonadotrophin normalization.

In the second case, an CSP was diagnosed by transvaginal sonography in a 33-year-old woman. This patient was treated with two intramuscular injection of MTX. The patient had mild bleeding at the 25th day with a spontaneous expulsion of the gestational sac.

**Conclusions:** CSP is a very unusual and possibly life-threatening complication of pregnancy. Decisions on treatment options should be dictated in part by gestational age, β-HCG levels, the presence of fetal cardiac activity, the desire of future fertility and the experience and facilities available.

**P0491**

**A NEW MODEL OF OBSTETRICAL PESSARY – PREVENTION AND TREATMENT OF CERVICAL INSUFFICIENCY AND HABITUAL ABORTION**

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**Objectives:** Cervical insufficiency is one of the most common causes of preterm labor. Obstetrical pessary can be used as an efficient method of treatment. The study of variety of pessaries available on the market revealed a number of faults in their construction and possible complications from their use.

**Method:** A new model of obstetrical pessary designed by the authors is made of high quality silicone of determined flexibility and density providing the optimal application of the pessary. The outstanding peculiarity of its expression depending on the sex of the fetus are not completely understood. The objective of this study was to explore the peculiarities of angiogenic factors and cytokines system in women with physiological pregnancy and in case of placental insufficiency in dependence on fetal sex.

**Results:** Research of new model of obstetrical pessary was conducted on a group of pregnant women (80 patients) with cervical insufficiency or history of habitual abortion and pregnancy of 14 to 37 weeks of gestation. All pregnancies were followed to term.

**Conclusions:** Application of the new model of obstetrical pessary considerably increases the chances of successful development of pregnancy in women with cervical insufficiency and habitual abortion. The optimal timing for use obstetrical pessary is from the 14 week of pregnancy to the 37th week of pregnancy with the subsequent removal of the pessary.

**P0492**

**BREAST CANCER IN PREGNANCY – A SINGLE CENTRE CASE SERIES**

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**Objectives:** Breast cancer is the most common malignancy occurring in pregnancy. The incidence of breast cancer increases with age and so the diagnosis of breast cancer is expected to rise as there is an increasing trend for women to delay the first pregnancy. Maternal treatment is essential, however potentially harmful to the fetus. This case series aims to present demographic data and pregnancy outcomes for patients diagnosed with breast cancer in pregnancy. This will be beneficial for future practise as we carefully analyse the various diagnostic and therapeutic modalities for both the mother and fetus.

**Method:** This will be a retrospective case series looking at patients diagnosed with breast cancer in pregnancy from 2006 to 2015. We will look at 15 patients who have delivered at Westmead Hospital, Sydney, Australia. Demographic data includes age at diagnosis, gravidity and parity, gestational age at diagnosis, staging, histology, treatment modalities and mode of delivery. Maternal outcomes include effects on breastfeeding, disease free interval, recurrence and further treatment modalities. Neonatal outcomes include weight, apgar, gestational age and length of neonatal intensive care (NICU) or special care nursery (SCN) stay. Data will be analysed using appropriate statistical analysis.

**Results:** We are currently still collecting data for the 15 subjects who were diagnosed with breast cancer in pregnancy during 2006 - 2015 and delivered at Westmead Hospital.

**Conclusions:** Although we cannot comment on the results of the case series, we will have finished data collection and statistical analysis ahead of time for the XXI FIGO World Congress. The results will be valuable for and future practice. We hope to statistically analyse the data and assess maternal and neonatal outcomes of breast cancer diagnosed in pregnancy.

**P0493**

**THE SYSTEM OF ANGIOGENIC FACTORS AND CYTOKINES IN WOMEN WITH PHYSIOLOGICAL AND COMPLICATED PREGNANCY IN SECOND AND THIRD TRIMESTERS IN DEPENDENCE ON FETAL SEX**

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**Objectives:** Significant violations of angiogenesis, which are accompanied by changes in expression of endothelial growth factors and interleukins, are observed in placental insufficiency. However, peculiarities of its expression depending on the sex of the fetus are not completely understood. The objective of this study was to explore the peculiarities of angiogenic factors and cytokines system in women with physiological pregnancy and in case of placental insufficiency in dependence on fetal sex.

**Method:** We studied 2 groups of women: 390 women with physiological pregnancies (203 women with male fetuses and 187 with female fetuses) and 345 women with placental insufficiency (176 women with male and 169 with female fetuses). The levels of VEGF-A, EGF, PIGF, ET-1, TNF-α, IL-1, IL-6, IL-10, IL-12 were determined in blood serum with the help of ELISA method in II and III trimesters of gestation.

**Results:** We detected a higher expression of VEGF-A (1.5 times), ET-1 (2.5 times), EGF (1.6 times) in physiological pregnancy in women with female fetuses than in women with male fetuses. Higher levels
of IL-1β (1.5 times), IL-6 (1.8 times) and IL-10 (5.7 times) were revealed in mothers of girls in pregnancies with placental insufficiency. Our study showed that changes in expression of angiogenic factors and cytokines contribute to the development of oligohydramnios (11.4%), polyhydramnios (9%), preeclampsia (6.8%) and unfavorable indices of fetal biophysical profile in pregnant women with male fetuses.

**Conclusions:** Identified differences in the expression of angiogenic factors and cytokines suggest the existence of a special “request” from the utero-placental-fetal complex defined by the sex of the fetus. High activity of angiogenic factors and cytokine system in women with female fetus both in physiological and complicated pregnancies indicates a higher adaptability of its “mother-placenta-fetus” system.

**P0494**

**FETO-MATERNAL OUTCOME IN PATIENTS WITH SICKLE CELL ANAEMIA AT THE UNIVERSITY OF PORT HARCOURT TEACHING HOSPITAL, PORT HARCOURT, NIGERIA: A TEN YEAR RETROSPECTIVE REVIEW**

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**Objectives:** To evaluate maternal and fetal outcome in pregnant women with sickle cell anaemia at the University of Port Harcourt Teaching Hospital, Port Harcourt, south south Nigeria.

**Method:** A retrospective study of 17 pregnancies in 13 patients with sickle cell anaemia over a 10-year period was conducted at the University of Port Harcourt Teaching Hospital, Port Harcourt, Nigeria. (January 2003–December 2012). The data were analysed using SPSS version 17.0.

**Results:** The age range of women in the study group was 25–38 years. Nulliparous women accounted for 47.1%. Anaemia was present in all the women. Other complications included urinary tract infection in 64.3%, lobar pneumonia in 17.7% and osteomyelitis in 5.9%. Maternal mortality rate was 9.7 per 100,000 deliveries. There were 3 stillbirths with a stillbirth rate of 0.1 per 1000 live births for the study period. The mean birth weight was 2752.9g. Preterm delivery occurred in 5 pregnancies. Major fetal complications included moderate birth asphyxia occurring in 5.9% of the babies, 47.1% had neonatal jaundice while 23.5% had neonatal sepsis.

**Conclusions:** Sickle cell anaemic patients are at increased risk of poor fetal and maternal outcome in pregnancy especially in low resource centres and therefore should be managed in centres with adequate personnel and facilities. A concerted effort and emphasis on improvement in health seeking behaviour and pre-conception care will improve outcome in this high risk group.

**P0495**

**MANAGEMENT OF PREGNANCY IN WOMEN WITH CHRONIC MYELOID LEUKEMIA**

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**Objectives:** Management of pregnancy and treatment options in women with chronic myeloid leukemia (CML) are still controversial because of limited experience. The main issues in monitoring pregnancy in women with CML are the prevention of disease progression and fetus safety. This study was aimed to analyze pregnancy outcomes and management of CML during pregnancy.

**Method:** All women were observed from 2006 to 2015. 54 pregnancies in 46 women with Ph阳性 CML were analyzed. Chronic phase CML was diagnosed in 44 women, accelerated phase was in 2 women. In 24 of 38 cases treatment interventions (interferon alpha in 9 cases, hydroxyurea in 2 and tyrosine kinase inhibitors (TKI) in 12 cases) were performed in the 2nd–3rd trimester and in 2 cases treatment was carried out throughout entire pregnancy. Among analyzed characteristics were treatment and monitoring of CML, pregnancy complications and outcomes, characteristics of newborns.

**Results:** The pregnancy outcomes were following: 38 (70.4%) deliveries, 5 (9.3%) spontaneous abortions, 2 (3.7%) antenatal deaths and 9 (16.6%) medical abortions. The infants born under TKI exposure had no birth abnormalities. However, a low weight (<2500 g) was observed in 6 of 12 newborns and 5 of these cases were delivered prematurely. Two cases of premature delivery and antenatal death were in females non-compliant to TKI with no treatment at pregnancy and hematologic relapse. Among 5 cases of spontaneous abortions 3 patients conceived on imagining, for 2 data were not obtained.

**Conclusions:** Management of CML during pregnancy is based on careful assessment of risks for mother and fetus. Treatment approaches highly depend on grade of remission and pregnancy term. Although successful outcomes of TKI use in pregnancy are possible on late stages of pregnancy, risks of TKI exposure on human fetus remain unknown. A safe way for reducing the risks in this group of women of reproductive age is to avoid pregnancy until achieving stable deep molecular disease remission.

**P0496**

**THE SIGNIFICANCE OF ANTIPHOSPHOLIPID ANTIBODIES IN COMPLICATED PREGNANCIES**

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**Objectives:** To determine the association between antiphospholipid antibodies and pregnancy complications and arterial venous thrombosis.

**Method:** Three hundred three women with pregnancy complications matched with 100 women having a past history of uncomplicated pregnancy outcome were screened for the presence of antiphospholipid antibodies such as lupus anticoagulant and immunoglobulin G(IgG)M antibodies for cardiolipin.

**Results:** Among the overall positivity for any one of the antiphospholipid antibodies studied, significant associations were found with recurrent pregnancy loss (OR 16.87; 95% CI: 5.5–51.63, p<10⁻³), intrauterine growth retardation (OR3.9; 95% CI: 1.08–14.05; p=0.04) and preeclampsia (OR 4.54; 95% CI: 1.25–16.42; p=0.035). IgG was considered a risk factor for recurrent pregnancy loss (OR 15.3; 95% CI: 3.37–69.7, p<10⁻³) and intrauterine growth retardation (OR 6.7; 95% CI: 1.3–33.4, p=0.017). The lupus anticoagulant was associated only with recurrent pregnancy loss (OR 12.4; 95% CI: 1.48–103.1, p=0.006).

**Conclusions:** Our study despite the small size of some pathologic groups provides that women with antiphospholipid antibodies are at risk of recurrent pregnancy loss, intrauterine growth retardation, and preeclampsia. Their detection is clinically very important because of the risk of recurrence and the need of preventive therapy such as antithrombotics.

**P0497**

**ANALYSIS OF FAILURE FACTORS FOR PRETERM LABOR PATIENTS UNDERGOING TOCOLYSIS WITH RITODRINE OR ATOSIBAN**

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**Objectives:** To find the differences between the patient groups failed with ritodrine or atosiban in order to determine the optimal tocolytic agent where there is no clear first-line tocolytic drug in consensus.

**Method:** Retrospective cohort study conducted via medical record review from March 2010 to April 2014 at the Severance Hospital, Seoul, Korea was used. Patient groups were divided into one group
failed with ritodrine (n=94), and the other group failed with atosiban (n=90).

**Results:** The patient group failed with atosiban was younger (p<0.001) and had higher weight (p=0.010) and parity (p=0.030) with significance. The patient group failed with ritodrine had higher level of potassium (p=0.007) and lower level of creatinine (p=0.012) at the admission. In the logistic regression, potassium (p=0.030) and creatinine level (p=0.002) at the admission were statistically different between two groups. Our logistic regression model derived from 2 variables, predicted failure rate was 77.9%.

**Conclusions:** The comparison of patient group failed with ritodrine or atosiban showed that age, weight, parity, level of potassium and creatinine at the admission were significantly different. We can infer from this finding that we can decide which tocolytic agents to use based on some clinical characteristics. Further studies are needed to determine the optimal models using those clinical characteristics.

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**PO499**

**ASSOCIATION BETWEEN 1-HOUR GLUCOSE TOLERANCE TEST AND PERINATAL OUTCOMES**

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**Objectives:** The aim of this study was to evaluate the relationship between subcategories of 1-hour 50g glucose challenge test results and perinatal outcomes.

**Method:** We reviewed the medical records of 2631 pregnant women who normal 1-hour 50g glucose tolerance test between March 2001 and April 2013. Glucose challenge test result category was further stratified into categories of 10-unit increments for comparison (<100 mg/dl, 100–109mg/dl, 110–119mg/dl, 120–129mg/dl, 130–139mg/dl). Therefore, we compared maternal and perinatal outcomes among five groups.

**Results:** Maternal body weight before and after pregnancy were statistically significant among five groups (p<0.001). In addition, there were significantly differences in BMI of prepregnancy and delivery time (p<0.001). All of the above factors tended to increase depending on higher glucose level. Also, cesarean section rate was 35.1%, 39.2%, 42.7%, 42.9%, and 47.2% in less than 100 mg/dl, 100–109mg/dl, 110–119mg/dl, 120–129mg/dl, 130–139mg/dl, respectively (p<0.001). The average level of 8-iso-PG F2α was 0.0001. 15 of 18 cases with severe PE, were represented with VACOP in 5 cases, R-EPOCH - in 3 and R-CHOP - in 2 cases. The chemotherapy treatment during pregnancy was performed in 9 women with HL, in 10 - with NHL. Women with MPN were treated with interferon alfa, aspirin, anticoagulants. 9 women with CML were treated with interferon alfa, 2 - with hydroxycarbamide and 12 - with tyrosine kinase inhibitors. Among women who didn’t receive special treatment were: 18 with LH, 5 with NHL and 14 with CML.

**Results:** The chemotherapy regimens during pregnancy were: ABVD in 8 women with HL, COPP in 1 case, women with NHL were treated with VACOP in 5 cases, R-EPOCH - in 3 and R-CHOP - in 2 cases. Pregnancy outcomes in women with HM were: 135 (82.9%) deliveries, 9 (5.5%) spontaneous abortions, 2 (1.2%) antenatal deaths and 17 (10.4%) artificial abortions mainly for medical reasons. Preterm labour occurred in 32 (23.7%) cases. Totally 141 children were born (6 twins). The infants born under chemotherapy exposure had no birth abnormalities.

**Conclusions:** Treatment of women with HM in pregnancy is possible and must be done according to the protocols containing drugs which are safe in pregnancy. Women suffering from CML must achieve stable deep molecular disease remission as well as patients with myeloproliferative neoplasms. There is no difference between the health of infants born by mothers in HM even after the special treatment and the newborns from general population.

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**PO500**

**OUTCOMES OF PREGNANCY IN WOMEN WITH HEMATOLOGICAL MALIGNANCIES**

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**Objectives:** In recent years treatment of some hematological malignancies (HM) has improved considerably due to more profound understanding of their pathogenesis, implementation of new medicines and optimization of accompanying therapies. For this reason the issues pertaining to the realization of reproductive function in this category of patients are becoming a very important subject.

**Method:** We analysed 163 pregnancies in 155 women with different HM. Among the observed women 27 suffered from Hodgkin lymphoma (HL), 15 - from Non-Hodgkin lymphoma (NHL), 67 - from myeloproliferative neoplasms (MPN), 46 - chronic myeloid leukemia (CML). The chemotherapy treatment during pregnancy was performed in 9 women with HL, in 10 - with NHL. Women with MPN were treated with interferon alfa, aspirin, anticoagulants. 9 women with CML were treated with interferon alfa, 2 - with hydroxycarbamide and 12 - with tyrosine kinase inhibitors. Among women who didn’t receive special treatment were: 18 with LH, 5 with NHL and 14 with CML.

**Results:** The chemotherapy regimens during pregnancy were: ABVD in 8 women with HL, COPP in 1 case, women with NHL were treated with VACOP in 5 cases, R-EPOCH - in 3 and R-CHOP - in 2 cases. Pregnancy outcomes in women with HM were: 135 (82.9%) deliveries, 9 (5.5%) spontaneous abortions, 2 (1.2%) antenatal deaths and 17 (10.4%) artificial abortions mainly for medical reasons. Preterm labour occurred in 32 (23.7%) cases. Totally 141 children were born (6 twins). The infants born under chemotherapy exposure had no birth abnormalities.

**Conclusions:** Treatment of women with HM in pregnancy is possible and must be done according to the protocols containing drugs which are safe in pregnancy. Women suffering from CML must achieve stable deep molecular disease remission as well as patients with myeloproliferative neoplasms. There is no difference between the health of infants born by mothers in HM even after the special treatment and the newborns from general population.
syndrome, is pregnancy-specific syndrome that affects every organ. Abnormal protein excretion, named proteinuria, was essential condition for diagnosis of preeclampsia, but overt proteinuria is now considered as one of abnormal multi-systemic symptoms. Moreover, severe proteinuria over 2 g/24h is no more indicator of severity. The aim of this study was to investigate that massive proteinuria in preeclampsia has the effects on maternal and fetal complications.

**Method:** From January 2012 to November 2014, we retrospectively reviewed the clinical records of 168 patients who were diagnosed as preeclampsia. We excluded the patients with previous renal diseases. We divided the preeclampsia patients into two groups by amount of proteinuria. Massive proteinuria group was defined by urine excretion exceeding 5000 mg/24h. We evaluated the clinical characteristics, maternal complications including abruptio placentae, pulmonary edema, acute renal failure, hepatic dysfunction, thrombocytopenia, serum albumin, retinal detachment and eclampsia, and neonatal complications including preterm delivery, intrauterine growth restriction (IUGR) and neonatal death. Outcomes were analyzed using Mann-whitney test or chi square test.

**Results:** There were no significant differences in clinical characteristics between two groups, except the gestational age at diagnosis (32.5±4.0 vs. 31.3±3.3 weeks, p=0.013). Among maternal complications, an increase of the serum creatinine level (0.66±0.48 vs. 0.76±0.19 mg/dL, p<0.0004), a decrease of the serum albumin level (2.88±0.38 vs. 2.55±0.29 g/dL, p<0.0001), and the prevalence of pulmonary edema (26.2 vs. 49.1%, p=0.005) were more significantly developed in preeclampsia patients with massive proteinuria. But, other maternal complications were not more frequently developed in massive proteinuria group. Moreover, fetal complications were also not significantly different between two groups.

**Conclusions:** Massive proteinuria alone does not have strong association with major complications in women with preeclampsia, such as eclampsia, abruptio placentae, acute renal failure, hepatic dysfunction, retinal detachment, IUGR and neonatal death. However, massive proteinuria might have effect on renal albumin excretion related morbidity such as pulmonary edema and low serum albumin. When considering the management of preeclampsia, we should not make hasty decisions based on severity of proteinuria alone.

**P0502**

**VERTEBRAL HAEMANGIOMA IN PREGNANCY – 2 CASES**

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**Objectives:** Low back ache and paresthesia of lower limbs in pregnancy are often ignored as physiological, but need not be always. 2 cases where these innocent looking symptoms led to severe morbidity are presented to highlight this.

**Method:** Case report of 2 cases which occurred in a span of one year at Amala Institute of Medical Sciences.

**Results:** Both term primi’s with low backache, strain while walking. Power right leg was 4/5, first one came back with inability to walk, urinary retention. There was sensory loss below mid thorax, bladder was atonic, power grade 2, B/L plantar extensor. MRI S/O haemangioma. Planned for emergency LSCS, but developed leaking and progressed fast and delivered by vacuum. Underwent D4 laminectomy. In second case after 2wks numbness increased. There was sensory loss both feet, B/L plantar extensor, grade 3 power both lower limbs. MRI - same. Emergency LSCS and microdecompression done. HPR - Cavernous haemangioma of vertebra. Both gradually improved.

**Conclusions:** Incidence of vertebral haemangiomas are 10–20% and only 1% is symptomatic. Pregnancy make them symptomatic by pressure effect and hormonal action. Begins as low backache/radicular pain and leg parasthesia which rapidly progress to paresis and urinary involvement. By that time its might cause irreversible damage. Hence early diagnosis is the keyword. Few extra minutes dedicated for patients with this type of symptoms might prove fruitful. If found out timely morbidity can be minimised. Miscellaneous symptoms in pregnancy can be mischievous at times.

**P0503**

**COMMUNITY HEALTH CARE WORKER KNOWLEDGE AND MANAGEMENT OF PRE-ECLAMPSIA IN INDIA**

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**Objectives:** This study aimed to describe the current state of knowledge regarding pre-eclampsia and eclampsia among community health care workers (Auxiliary Nurse Midwives, Accredited Social Health Activists, staff nurses) in India. Furthermore, this study will describe the treatment approaches by various cadres of community health workers for these conditions.

**Method:** Data were collected as part of a larger study aimed at assessing the feasibility of community-based treatment for pre-eclampsia using community health care workers. Eight focus group discussions were conducted in 2012–2013 in Karnataka State, India: four with staff nurses and Auxiliary Nurse Midwives and four with Accredited Social Health Activists. In addition, 12 self-administered questionnaires were distributed to Auxiliary Nurse Midwives and staff nurses. The purpose of this survey was to reveal health worker competence and self-efficacy in the identification and management of pre-eclampsia. Qualitative data were audio-recorded, transcribed verbatim and translated for thematic analysis using NVivo 10.

**Results:** Community health workers described the origin of hypertension and seizures in pregnancy. Psychological explanations of hypertension were most common: stress, tension, and fear. The most common explanation for eclampsia was not receiving a tetanus vaccination. These community health workers demonstrated a good grasp of the potential consequences of hypertension in pregnancy. According to Auxiliary Nurse Midwives and staff nurses, if hypertension was detected they encouraged rest, decreased salt intake, iron supplementation and tetanus vaccination. In addition, some staff nurses administered antihypertensives, MgSO4, or other anticonvulsants. All Auxiliary Nurse Midwives had awareness of MgSO4, but none had administered it themselves.

**Conclusions:** There is limited knowledge of pre-eclampsia among community health workers in India, some misconceptions are prominent. Pre-eclampsia was most commonly attributed to mental stress and tension. Responses from the self-administered questionnaire demonstrated varied levels of comprehension and confidence in screening and referring cases of pre-eclampsia and eclampsia.

**P0504**

**ADDITION OF LIGNOCAIN IN INTRAMUSCULAR INJECTION OF MAGNESIUM SULPHATE: DOES IT REDUCE PAIN IN WOMEN WITH SEVERE PREECLAMPSIA AND CONSCIOUS ECLAMPTIC WOMEN? A RANDOMIZED CONTROL TRIAL**

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**Objectives:** To assess the pain with visual analog scale in IM Magnesium Sulfate with Lignocaine versus IM Magnesium Sulfate alone.

**Method:** This is a Randomized control study done at labour room of teaching hospital attached to Dr KLE’s Prabhakar Kore Hospital and
Medical Research Centre. Sample size of 72, 36 in each group including loss for follow up whose pain is assessed using visual analog scale. Analysis of study is done by measuring mean score in both groups and severe degree of pain in each group which is compared using students unpaired “t” test.

Results: A total of 39 women were studied till now of which group A 18 and group B 21 cases completed the study. There was no significant change in pain score in both the groups.

Conclusions: Pain scoring is mainly dependent on individual perception of pain. Till now 39 cases were studied of which no significant difference in pain score was observed. However final analysis could be provided after completion of the study.

P0505
A CASE OF HEMORRHAGIC SHOCK COMPlicated BY A COMPLETE HYDATIDIFORM Mole DURING PREGNancy INVOLVING A DD TWIN FETUS

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Objectives: We report our experience with an extremely rare triplet pregnancy involving a DD twin fetus and complete hydatidiform mole.

Method: Wanting a child, she underwent clomifene therapy administered by a previous physician. Under treatment, she became pregnant with a twin fetus. However, pregnancy checkup on week 13 day 3 revealed a tumor-like mass 10cm in diameter in the uterine cavity. A large mass with a cystiform ultrasonographic image was observed in the inferior portion of the uterine cavity, above which were 2 healthy placentas containing 2 fetuses. A triplet pregnancy with a DD twin fetus and complete hydatidiform mole was diagnosed on ultrasonography. Examinations on week 15 day 6 revealed high human chorionic gonadotropin (hCG) level at 1.39 million mlU/mL.

Results: On week 17 day 4, she was admitted to the hospital for management. On week 18 day 4, a large amount of genital bleeding occurred suddenly, and the patient went into hemorrhagic shock. High-dose infusion and blood transfusion were administered, but the excessive genital bleeding persisted and the shock state did not improve. Thus, intrauterine curettage was performed under emergency laparotomy. After hysterectomy, a large amount of hydatidiform mole was suctioned from the uterine cavity. Next, the 2 placenta and 2 fetuses were removed. The postoperative course was normal, and no secondary changes were observed on computed tomography or MRI.

Conclusions: Triplet pregnancies with a DD twin fetus and complete hydatidiform mole are rare but are reported to result in live births in about 10% of the time. In this case, a sudden major hemorrhage led to a shock state. The patient’s life was saved, but the pregnancy had to be terminated. Triplet pregnancies with a DD twin fetus and complete hydatidiform mole need to be managed carefully because of the risk of a major hemorrhage.

P0506
COMMUNITY HEALTH CARE WORKER KNOWLEDGE AND MANAGEMENT OF PRE-ECLAMPSIA IN MOZAMBIQUE

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Objectives: Two hundred and eighty nine thousand women died in 2013 from pregnancy related causes, the vast majority of these deaths were in Sub-Saharan Africa. Mozambique’s maternal mortality ratio is estimated at 480 deaths per 100,000 live births. Women in rural areas, with limited access to health facilities are at greatest risk. To reach these vulnerable women, in 1978 Mozambique introduced a community health worker programme known as Agentes Polivalentes Elementares. This study aimed to describe the current state of knowledge regarding pre-eclampsia and eclampsia by these community health workers in southern Mozambique.

Method: This mixed method study was conducted in Maputo and Gaza Provinces, in southern Mozambique in 2013. Eighty one self-administered questionnaires were completed by community health workers. In addition, eight interviews were conducted with district medical officers, community health worker supervisors and gynaecologists and obstetricians, and five focus group discussions were convened with matrons. The data were translated from local language to Portuguese for analysis using NVivo 10.

Results: Ninety three percent of community health workers demonstrated an awareness of various pregnancy-related complications. Forty one percent were able to describe the signs and symptoms of hypertension. In cases of eclampsia, community health workers claimed to immediately refer pregnant women to the health facility. This quick action indicates their limited knowledge and skills to manage complications independently. Over half of the community health workers surveyed believed they could neither measure blood pressure nor proteinuria, and only 57% were confident in providing oral medications (47%) of any kind. Even fewer reported confidence in providing oral antihypertensive (14%) and injections (5%).

Conclusions: These results illustrate the limited knowledge of community health workers and the need to enhance their training to include curative activities including the management of pre-eclampsia. As community health workers are the first point of contact for primary care, particularly in rural areas where other services are difficult to access, these providers must be equipped with the knowledge to identify, stabilize, and refer obstetric emergencies.

P0507
CAUSES OF STILLBIRTH AT A LARGE UK TERTIARY REFERRAL CENTRE BEFORE AND AFTER THE INTRODUCTION OF NATIONAL GUIDANCE ON THE MANAGEMENT OF SMALL-FOR-GESTATIONAL-AGE FETUSES

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Objectives: Stillbirth is a devastating pregnancy outcome which affects all nations. Little progress has been made in the United Kingdom to reduce the stillbirth rate significantly, which was 4.7 per 1000 total births in 2013 in England and Wales. The Royal Victoria Infirmary (RVI) serves the city of Newcastle Upon Tyne in North East England and delivers 7600 babies annually. The purpose of this study is to ascertain the rate and causes of stillbirth before and after the introduction of new national guidance on the diagnosis and management of the small-for-gestational-age (SGA) fetus at the RVI.

Method: All cases of stillbirth at the RVI are recorded via the risk assessment (n=3), musculoskeletal abnormality (n=1), Potter’s sequence (n=1), fetal hydrops (n=1). All fetuses were classified as SGA at
post-mortem. Two of the fetuses from the December-January cohort were classified as SGA. Causes for still birth in the second cohort was uteroplacental insufficiency (n=2), twin-twin transfusion syndrome (n=1) and unknown cause (n=1).

**Conclusions:** The number of stillbirths decreased following the introduction of this guideline. It is clear that introduction of this guideline has increased antenatal surveillance for the SGA fetus. Planning elective delivery in this group at earlier gestation has impacted on still birth rate. This study could be extended to investigate the impact of increasing the elective work load which has resulted from introduction of this new guideline in this unit.

**P0508**

**PERINATAL OUTCOMES OF INTRAUTERINE GROWTH RESTRICTED PREGNANCIES AT A TERTIARY HEALTH CARE CENTRE INoman**

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**Objectives:** Intrauterine growth restriction (IUGR) is a major obstetric problem associated with increased perinatal morbidity and mortality. IUGR is failure of the fetus to achieve its optimum growth potential resulting in fetal weight less than the 10th centile for gestation. IUGR fetuses are at risk of birth asphyxia, perinatal morbidity and mortality and metabolic syndrome in adult life.

There is a paucity of data in Oman regarding perinatal outcomes of IUGR pregnancies.

The current study aims to evaluate perinatal outcomes in IUGR pregnancies in Omani mothers delivering at Sultan Qaboos University Hospital (SQUH) a tertiary teaching and referral hospital in Oman.

**Method:** In this retrospective cohort study, all mothers antenatally diagnosed with IUGR delivering at SQUH between 24 to 40 weeks gestation from 1st April 2012 to 31 March 2014 were studied. Data collected from the maternity register, neonatal register and electronic patient record system which included demographic data, gestation at delivery, delivery and baby details, neonatal outcomes including respiratory distress syndrome (RDS), intraventricular hemorrhage (IVH), necrotizing enterocolitis (NEC), length of NICU stay and neonatal death. Exclusion criteria were multiple pregnancy and congenital anomalies. Data was analysed using SPSS version 21, Chi square test, p value <0.05 was considered statistically significant.

**Results:** Total number of deliveries during the study period was 7657. After excluding multiple pregnancy, 564 women with IUGR fetuses were identified giving a prevalence of 7.37%. The mean maternal age was 28.3 years and BMI 28.3. Primigravidae formed 35.8%, Gravida 2–5 were 53.4% and > Gravida 5, 10.8%. Major maternal risk factors were haematological disorders 12.1%, diabetes 9.9%, hypertensive disorders of pregnancy 8%, placental and cord abnormalities 7.8%. previous IUGR babies, antenatal complications like hypertension, pre-eclampsia, diabetes, gestational age at delivery, mode of delivery and baby details Exclusion criteria were multiple pregnancy. Data was analysed using SPSS version 21, Chi square test and p value of <0.05 was considered statistically significant.

**Conclusions:** The total number of deliveries during the study period was 7657. After excluding multiple pregnancy, 564 women with IUGR fetuses were identified giving a prevalence of 7.37%. The mean maternal age was 28.3 years and BMI 28.3. Primigravidae formed 35.8%, Gravida 2–5 were 53.4% and > Gravida 5, 10.8%. Major maternal risk factors were haematological disorders 12.1%, diabetes 9.9%, hypertensive disorders of pregnancy 8%, placental and cord abnormalities 7.8%. previous IUGR babies, antenatal complications like hypertension, pre-eclampsia, diabetes, gestational age at delivery, mode of delivery and baby details Exclusion criteria were multiple pregnancy. Data was analysed using SPSS version 21, Chi square test and p value of <0.05 was considered statistically significant.

**P0509**

**PREVALENCE AND MATERNAL RISK FACTORS ASSOCIATED WITH INTRAUTERINE GROWTH RESTRICTED PREGNANCIES AT A TERTIARY REFERRAL CENTRE IN OMAN**

L. Machado, S. Pillai, R. Al-Hinai, S. Kumari. Sultan Qaboos University Hospital, Muscat, Oman

**Objectives:** Intrauterine growth restriction (IUGR) is a major neonatal health issue associated with increased perinatal morbidity and mortality. The etiology is multifactorial as fetal growth depends on genetic, placental and maternal factors. Early diagnosis and timely intervention improves perinatal outcomes.

There is a paucity of data in Oman regarding the prevalence and outcomes of IUGR pregnancies. Ministry of Health data 2007 quoted an incidence of 9%.

The current study aims to determine the prevalence of IUGR in Omani mothers delivering at Sultan Qaboos University Hospital (SQUH) a tertiary teaching and referral hospital in Oman to evaluate the contributing maternal risk factors.

**Method:** This was a retrospective cohort study. All mothers antenatally diagnosed with IUGR delivering at SQUH between 24 to 37+6 weeks gestation from 1st April 2012 to 31 March 2014, formed the study group. Data was collected from the maternity register, neonatal register and electronic patient record system which included demographic data, BMI, previous IUGR babies, antenatal complications like hypertension, pre-eclampsia, diabetes, gestational age at delivery, mode of delivery and baby details. Exclusion criteria were multiple pregnancy.

Data was analysed using SPSS version 21, Chi square test and p value <0.05 was considered statistically significant.

**Results:** The total number of deliveries during the study period was 7657. After excluding multiple pregnancy, 564 women with IUGR fetuses were identified giving a prevalence of 7.37%.

The mean maternal age was 28.3 years and BMI 28.3. Primigravidae formed 35.8%, Gravida 2–5 were 53.4% and > Gravida 5, 10.8%. Major maternal risk factors were haematological disorders 12.1%, diabetes 9.9%, hypertensive disorders of pregnancy 8%, placental and cord abnormalities 7.8%. previous IUGR babies, antenatal complications like hypertension, pre-eclampsia, diabetes, gestational age at delivery, mode of delivery and baby details. Exclusion criteria were multiple pregnancy. Data was analysed using SPSS version 21, Chi square test and p value of <0.05 was considered statistically significant.

**Conclusions:** The prevalence of IUGR in the current cohort of Omani women was 7.37%. This is comparable with other studies which report a prevalence of 6–10%. Haematological disorders, hypertensive disorders of pregnancy, diabetes, placental and cord anomalies were found to be major risk factors. The association of Cesarean sections at 12.4% needs further study.

This is the first study in Oman addressing this issue and would serve as a baseline for future studies.

**P0510**

**SUCCESSFUL CONSERVATIVE MANAGEMENT OF A CASE OF GRAVIDIA 6, ABORTION 5 WITH CERVICAL CERCLAGE IN SITU AND PPROM AT 23 WEEKS OF GESTATION**

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**Objectives:** To report successful conservative management of an extremely preterm PROM at 23 weeks in a high risk pregnant woman with recurrent miscarriage with cervical cerclage in situ.

**Method:** 26 year old G6A5 presented to us at 6 weeks with previous ONE failed cerclage and two mid trimester miscarriage at 18 and 22 weeks. Macdonald’s Cercalge was done at 14 weeks but had significant PPROM at 23 weeks. Complete bed rest, antibiotics, monitoring for infection and steroids has carried the pregnancy to 32 weeks with 1.3 kg (Cercalge in situ) and we are planning to terminate at 35–36 weeks. Update will be sent in 4 weeks time.
Results: Pregnancy caried till 32 weeks with estimated fetal weight of 1.3 kg and AFI of 9. No evidence of chorioamnionitis or preterm labor so far. Plannin to terminate at 35–36 weeks. Delivered by elective Cesarian section a baby girl, 1.9 kg with good Apgar score without any complications. Both mother and baby had uneventful course in hospital and were discharged on 29th April 2015.

Conclusions: Conservative management and successful pregnancy feasible in extremely preterm PROM with recurrent miscarriage with in situ cervical Macdonald cerclage.

P0513
HEALTH CARE PROVIDER KNOWLEDGE AND REGULAR MANAGEMENT OF PRE-ECLAMPSIA IN PAKISTAN
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Objectives: The maternal mortality ratio is estimated to be 93–320 per 100,000 live births in Pakistan. Eclampsia is responsible for every tenth maternal death despite the fact that management of this condition is inexpensive and the medications have been available for decades. There are widespread health care shortages in low and middle-income countries combined with limited formal training in high-risk obstetrics. Hence, this study aimed to explore the knowledge of various cadres of health care providers regarding aetiology, diagnosis and treatment of pre-eclampsia and eclampsia in Pakistan.

Method: This qualitative study was conducted in Hyderabad and Matiari Districts in Sindh Province, Pakistan in 2012. Focus group discussions and interviews were conducted with community health care providers, which included Lady Health Workers and their supervisors, traditional birth attendants and facility-based doctors. In total, ten focus groups and twenty-six interviews were held. Data were transcribed verbatim and analyzed in Sindi. NVivo 10 was used for analysis and to identify emerging themes and sub-themes.

Results: Health care providers had longstanding experience providing care for pregnant women; all but two had been working in the field for at least ten years. According to community health care providers, the origin of pre-eclampsia was due to the stresses of daily life, excessive strenuous labour, and short birth spacing. All health care providers, except traditional birth attendants, correctly identified the signs, symptoms and complications of pre-eclampsia. Community providers referred women suspected of pre-eclampsia and eclampsia to tertiary facilities. Only doctors were aware of MgSO4 as the drug of choice for eclampsia, nevertheless, fears regarding the use of MgSO4 persisted.

Conclusions: This study found several gaps in knowledge regarding aetiology, diagnosis and treatment of pre-eclampsia among the various cadres of health care providers. Findings suggest that limited exposure to women with pre-eclampsia, the lack of refresher training, and no written guidelines for the management of pre-eclampsia are important factors leading to inadequate knowledge. It is suggested that regular health worker training include management of pre-eclampsia and that management protocols are made available at all health facilities.

P0511
GIANT PLACENTAL CHORIOANGIOMA – A CASE REPORT AND LITERATURE REVIEW
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Objectives: A case report of a pregnancy complicated by a large chorioangioma detected in third trimester will be demonstrated together with images of placental histopathology and ultrasound images. A review of the current available literature on prenatal diagnosis and management of placental chorioangioma will also be conducted.

Method: Case report: We illustrate a 32 year old South Asian primigravida from a consanguineous relationship with diet controlled gestational diabetes and hypothyroidism. Antenatal diagnosis of a large 9.7 cm placental chorioangioma was made at 32+4 weeks gestation. The patient was monitored closely with Doppler ultrasound weekly and thrice weekly CTG assessment. At 35+1 weeks, ultrasound examination showed severe polyhydramnios (AFI of 40cm) and raised MCA PSV of 75cm/s which is in the transfusion Zone A. Four days later, she was diagnosed with fetal death in utero and subsequently delivered a 2455g female stillborn.

Results: We report a large placental chorioangioma (9.7cm) complicated by polyhydramnios and raised peak systolic velocity in the middle cerebral artery resulting in fetal death in utero.

Conclusions: Large placental chorioangiomas (>5cm) occur in one in 9000 to one in 50000 pregnancies [1]. It is associated with serious pregnancy complications such as polyhydramnios, fetal anemia (secondary to hemolysis or arteriovenous shunting), hydrops, fetal growth restriction, preterm delivery and fetal death. If complications develop late in pregnancy, planned delivery could be considered, depending on fetal maturity status and local neonatal facilities [2].

References:
[1] Fox H, et al. Non-trophoblastic tumors of the placenta. In: Pathology of the placenta, 3rd edition. 2007:401–430.
[2] Sepulveda W, et al. Perinatal outcome after prenatal diagnosis of placental chorioangioma. Obstet Gynecol 2003, 102:1028–1033.

P0512
THE PROGNOSIS OF MONOCHORIONIC CO-TWIN AFTER SINGLE INTRAUTERINE FETAL DEMISE
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Objectives: To analyze the surviving monochorionic co-twin after single intrauterine fetal demise (sIUDF).

Method: Retrospectively analyzed the twin pregnancy cases admitted in Peking University Third Hospital between Jan 2008 and Feb 2015. We recorded perinatal characteristics, neuroimage in co-twin, and found the neonatal outcome.

Results: 47 cases were found. Median gestational age at sIUDF was 27 weeks. Median interval between sIUDF and birth was 3.3 weeks. Median gestational age at birth was 34.2 weeks. The likely cause of sIUDF were: MCMA (2/47), sIUGR (11/47), TTTS (11/47) or TTTS complicated with sIUGR (3/47). In the sIUGR pregnancies, sIUDF occurred all in the growth-restricted fetus. In the TTTS pregnancies, sIUDF occurred all in donors. Among the live births (41/47), fetal cranial ultrasound showed that 7 neonatus got intraventricular hemorrhage. All of the 34 survivors whose follow up from 1 to 44 months, didn’t found cerebral palsy.

Conclusions: sIUDF always occurred in the growth-restricted fetus and the donor-twins. There was nobody had cerebral palsy in the survivors.
Method: 180 healthy pregnant women and 181 pregnant women with preeclampsia who delivered in Gangnam Severance Hospital from January 2007 to December 2013 were evaluated, retrospectively. We analyzed platelet to lymphocyte ratio (PLR), neutrophil lymphocyte ratio (NLR), platelet distribution width (PDW), mean platelet volume (MPV), and other serum markers.

Results: The levels of platelet (p < 0.001), lymphocyte (p < 0.001), PDW (p = 0.02), MPV (p < 0.001), and PLR (p < 0.001) in preeclampsia group were significantly different from those of normal pregnancy group. There was a significant association between the decreased PLR and severity of preeclampsia (p < 0.001). Another inflammatory marker, NLR, showed no significant difference when compared to normal group values (p = 0.797). In ROC curve analysis, PLR was superior to PDW, MPV, and NLR as a predictive value in women with preeclampsia (Area under the curve = 0.807 vs. 0.763, 0.714, 0.650).

Conclusions: Compare to other markers, PLR is the best predictive marker of preeclampsia. The PLR is inexpensive and easily accessible biomarker. In this study, we identified the possibility of PLR as a useful diagnostic marker of preeclampsia.

P0515
OBSTETRICAL MANAGEMENT OF PREGNANCY IN PATIENTS WITH KLIPPEL-TRENAUNAY-WEBER SYNDROME
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Objectives: To present the obstetrical management of two patients with diagnosis of Klippel-Trenaunay-Weber (KTW) syndrome; as well as their evolution throughout gestation and puerperium. KTW is a rare congenital disorder that consists of vascular-cutaneous nevi, varicose veins, venous malformations, soft and hard-tissue hypertrophy, all of which affects one or more limbs. The morbidity of this disease is associated with the presence of vascular abnormalities. In this subset of patients, pregnancy is not encouraged because it places the woman in a high obstetrical risk and potential complications. There are few cases reported this disease associated with gestation.

Method: Consultation and revision of medical records of these two patients with the diagnosis of Klippel-Trenaunay-Weber (KTW) syndrome; both of which received close follow up during prenatal care and anticoagulation at prophylactic doses additional to aspirin during gestation and puerperium. Obstetrical management in both cases resulted in delivery by means of cesarean section. Revisions and analysis of both medical records was undertaken with a thorough literature-associated revision.

Results: Case 1) 19-year-old woman with KTW syndrome and 38.5-week pregnancy complicated with gestational diabetes mellitus and preeclampsia. C-section was performed (male – 3340 gr, Apgar 8/9). Case 2) 23-year-old primigravida, with KTW, 37-week gestation and type 1 intrauterine growth restriction. Anticoagulation with 100mg daily aspirin and 20 mg of subcutaneous enoxaparin, both started during the second trimester. A C-section was performed because of a breech presentation (female – 2430 gr, Apgar 8/9 respectively. During surgery of both patients multiple uterine tortuous varicose veins where encountered. These two patients course an uneventful puerperium.

Conclusions: The expected physiological changes undertaken during gestation can exacerbate the complications of this syndrome. There is doubt of the benefit of anticoagulation therapy either with aspirin or low-molecular-weight heparins in this subset of patients. The most commonly reported complication in these patients is coagulopathy including deep vein thrombosis. There is currently no evidence to establish C-section as a method of delivery. During puerperium distinct recommendations point toward prophylactic anticoagulation therapy. As of date, no other cases are reported of KTW syndrome in a pregnant woman with either gestational diabetes mellitus, preeclampsia or intrauterine growth restriction.
PO518
MATERNAL AND FOETAL OUTCOMES AMONG SICKLE CELL DISEASE PATIENTS IN LAGOS NIGERIA
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Objectives: The increased understanding of basic pathology and management of sickle cell diseases has resulted in improved outcome. The effect of the improved management on the outcome of pregnancy complicated by sickle cell diseases remains controversial and inconclusive. The maternal and foetal outcome of pregnancies complicated by sickle cell disease in a city with a large population of women with the disease is reviewed.

Method: Information on maternal and neonatal events were obtained from the case records of women whose pregnancy were complicated by sickle cell diseases in a dedicated maternity hospital in Lagos over a 12 month period. Analysis was with SPSS for windows version 19.0.

Results: Of the 9,346 pregnant women managed over the study period, 45 (0.48%) were complicated by SCD. The average age of the patient was 26.30 years (range 19–37), while the average birth weight was 2.50kg. 42 (93.3%) of the patients had blood transfusion. Bone pain crisis was the commonest complication at 44.44% (20). The genotype of the patients, (HbSS, HbSC), did not significantly influence need for blood transfusion (p=0.017). C/S rate was 82.22% (n=37).

Conclusion: Sickle cell disease is a high risk pregnancy as reflected by the high C/S rate and high maternal mortality ratio. This is about twenty times the National average. The need for blood transfusion is high in all the variants of the disease. There was no difference in the mode of delivery among the variants of the disease. Advocacy effort to promote pre-conceptional clinic attendance to optimize this category of patients could reduce the need for blood transfusion and risk of dying in pregnancy.

PO519
SUCCESSFUL PREGNANCY OUTCOME IN THE “SHORTEST ACHONDROPLASTIC DWARF”
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Objectives: Reporting an interesting case of pregnancy in the shortest Achondroplastic dwarf with successful maternal and foetal outcome.

Results: Cases of Achondroplasia are rarely seen. It is very rare to come across such a case of pregnancy with successful fetus-maternal outcome. Apart from her abnormal bony architecture there were major problems encountered during pregnancy (Early onset preeclampsia & severe IUGR) and delivery (Anaesthetic & surgical).

Conclusion: There is pressing need for adequate counseling of the couple in the pre pregnancy as well as during the antenatal period. The biology of FGFR3 and the molecular and cellular consequences of the Achondroplasia mutation are being elucidated, providing a more complete understanding of the disorder and a basis for future treatments targeted directly at relevant pathogenetic pathways. Most of the serious complications can be modified favorably or prevented by anticipation and early treatment. Possible future treatments include chemical inhibition of receptor signalling, antibody blockade of receptor activation, and alteration of pathways that modulate the downstream propagation of FGFR3 signals.

PO520
THROMBOPHILIA AS A RISK FACTOR FOR NONPROGRESSIVE PREGNANCY AND ANTENATAL FETAL DEATH
A. Vorobev, M. Amrieva, The First Moscow State Medical Sechenov University, Moscow, Russia

Objectives: Elaboration of pathogenetic prophylaxis of antenatal fetal death in patients with genetic and acquired forms of thrombophilia.

Method: 64 women with fetal loss syndrome: I group: 38 patients have antenatal fetal death episode, II group: 26 women has non-progressive pregnancy before 12 weeks of pregnancy. Control group – 50 women with uncomplicated pregnancy and 50 nonpregnant women.

Results: In Igroup multigenetic thrombophilia found in 28 (73.6%), II group – 19 (73.1%), 4 (8%) control and in nonpregnant 5 (10%). Anticoagulation therapy by LMWH prescribed to all patients in I and II groups. In 64 pregnancies term labor was 57 (89.1%) and 7 (10.9%) antenatal death. 19 (29.7%) we performed caesarian section by obstetrician reasons. 21 (70%) was normal delivery and in 9 (30%) – caesarian section. In II group patients term labor was in 25 (83.3%) cases: in 10 (40%) cases was normal delivery and in 15 (60%) – caesarian section. Because of impairment of placental circulation for 4 (6.25%) patients had been performed preterm urgent caesarean section.

Conclusions: APA circulation and genetic thrombophilia detection in patient with nonprogressive pregnancy and antenatal fetal death allow to prescribe them pathogenetic prophylaxis with high effectiveness. Anticoagulation therapy should began in fertile cycle and follow during pregnancy and it’s allow in 89.1% cases to prevent recurrent fetal loss and thrombophilia associated complication of pregnancy.

PO521
THE ROLE OF ANTIPHOSPHOLIPID ANTIBODIES CIRCULATION IN PATIENTS WITH FETAL LOSS SYNDROME IN THE ANAMNESIS
A. Vorobev, M. Selkhadzhieva, The First Moscow State Medical Sechenov University, Moscow, Russia

Objectives: To estimate patogenetic value of antiphospholipid antibodies circulation in pregnant women with fetal loss syndrome.

Method: 45 women with fetal loss syndrome in the anamnesis have been examined during pregnancy.

Results: Circulation of aCL IgG/IgM has been detected in 11 (27.5%) patients; LA circulation – 29 (72.5%); 12 (41%) – proteins-cofactors of APA circulation; 5 (12.5%) – anti-annexin V IgG/IgM, anti-prothrombin IgG/IgM – 4 (10%) cases, 3 (7.5%) – β2-glycoprotein I IgG/IgM.

Results: Coagulation discordances: 27 (67.5%) – DIC-syndrome markers (D-dimer, TAT); 31 (77.5%) – hyper- and hypogagoulation; 78% – platelets hyperaggregation; 78% – consumable thrombocytopenia; 14% (35%) – protein C deficiency. Anticoagulats (LMWH) prescribed to all patients. Impairment of placental circulation has 14 (35%) patients: IA stage 9 (22.5%); IB – 1 (2.5%); IIA 3 (7.5%), IIB 1 (2.5%). Improvement of placental circulation observed in all cases except 1 patient IIIb stage.

44 (96.77%) delivered alive babies. Apgar scale was 3 (6.67%) 5–7
points, another has 7–8 points. In one case we diagnosed intranatal fetal death.

**Conclusions:** Anticoagulation therapy should be initiated in the first trimester and follow during pregnancy and it’s allow in 97.7% cases to prevent recurrent fetal loss and thrombophilia associated complication of pregnancy.

**P0522**

**PREGNANCY OUTCOME OF ISOLATED CASES OF INTER-TWIN FETAL WEIGHT DISCORDANCE ESTIMATED BY ANTEnatal ULTRASOUND**

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**Objectives:** To investigate the pregnancy outcome of isolated cases of inter-twin fetal weight discordance estimated by antenatal ultrasound.

**Method:** This is a retrospective cohort study of women with twin pregnancy delivered at or beyond 35 weeks of gestation in Samsung Medical Center from January 2007 to December 2013. Estimated fetal weight (EFW) discordance was defined as a difference of more than 20% in EFW between a twin pair calculated as $100 \times \left( \frac{EFW \text{ of the larger twin} - EFW \text{ of the smaller twin}}{EFW \text{ of the larger twin}} \right)$. Complicated pregnancies such as preterm labor, premature rupture of membranes, placenta previa, preeclampsia, diabetes, twin-to-twin transfusion syndrome, monoamniotic twin and congenital fetal anomaly were excluded.

**Results:** Among a total of 253 twin pregnancies, 32 cases were identified as isolated EFW discordant twins. The sensitivity, specificity, positive predictive value and negative predictive value of EFW discordance in predicting the birth weight discordance was 65.6%, 89.1%, 46.7% and 94.7%, respectively. Composite neonatal morbidity, defined as isolated EFW discordant twins. The sensitivity, specificity, positive predictive value and negative predictive value of EFW discordance in predicting the birth weight discordance was 65.6%, 89.1%, 46.7% and 94.7%, respectively. Composite neonatal morbidity, defined as having more than one of respiratory distress syndrome, admission to neonatal intensive care unit and neonatal death, decreased as gestational age at delivery increased (60.6%, 16.7%, 11.1% and 0% at 35, 36, 37 and 38 weeks respectively, $P<0.01$ by linear-by-linear association). Fetal death occurred in 1 case (3.1%).

**Conclusions:** The results of our study show that the sensitivity of EFW discordance in predicting the birth weight discordance was low, and neonatal adverse outcome was significantly associated with gestational age at delivery. Therefore, neonatal risk of elective early delivery for isolated discordant twin diagnosed by ultrasound should be balanced with the risk of fetal death.

**P0523**

**APA PROFILE IN WOMEN WITH FETAL LOSS SYNDROME**

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**Objectives:** As it is known pregnancy loss is a marker and the most striking manifestation of APS. We wanted to evaluate the importance of different antiphospholipid antibodies, especially antibodies to annexin V and anti-prothrombin antibodies that are not included in diagnostic criteria of APS.

**Method:** We have investigated anticardiolipin, antiannexin V, anti-b2-GPI, anti-annexin V and anti-b2-GPI – in 13.7%, anti-prothrombin and anti-b2-GPI – in 8.9%, LA, annexin V and b2-GPI – in 7.9% and was associated with more severe complications. In women treated before the pregnancy early miscarriage in the next pregnancy occurred in 1.6%. In II group the frequency of obstetric complications was higher compared with women of I group ($p<0.05$) but still significantly lower compared their history without therapy.

**Conclusions:** In spite of the fact that antibodies to annexin V are not included to the APS criteria, their level prevailed in the women with history of fetal loss. We consider it as a risk factor of recurrent fetal loss. Also the combination of various antibodies at the same time in women with more severe obstetric history demonstrates the diagnostic value of the determination of different groups of APA.

**P0524**

**PREVALENCE OF LOW BIRTH WEIGHT BABIES AMONG THE OBSTETRIC POPULATION FROM MALAYSIAN TERTIARY HOSPITALS: A CROSS SECTIONAL STUDY FROM THE NATIONAL OBSTETRICS REGISTRY, MALAYSIA**

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**Objectives:** Birth weight (BW) is an important determinant of child survival. Low birth weight (LBW) was defined by WHO as BW <2500g. Very low birth weight (VLBW) is weight <1500g and extremely low birth weight (ELBW) is BW <1000g. Global data on LBW shows that it is highest in South Asian region. This study was to look at prevalence and risk factors for LBW among the obstetric population in Malaysian tertiary hospitals and what possible measures are to be taken to reduce the incidence of LBW.

**Method:** This is a retrospective cohort study using data from the National Obstetrics Registry (NOR). NOR is a clinical database that compiles obstetric data from 14 tertiary hospitals in Peninsular Malaysia and East Malaysia. All babies with BW <2500g were included. The study period was from 1st January 2011 to 31st Dec 2012. Variables analysed were maternal demographic characters, income as well as clinical variables analysed. The analysis was performed using STATA statistical software. Descriptive statistics was obtained initially followed by multinomial regression to explore odd ratio of risk of LBW.

**Results:** There were a total of 260,959 deliveries captured in NOR during the study period. 82.1% (n=214,344) babies weighed more than 2500g. The prevalence of LBW was 16.6% (n=43,402) of which 6.7% (n=2889) were VLBW and 5.6% (n=2433) were having ELBW during the study period. 82.1% (n=214,344) babies weighed more than 2500g. The prevalence of LBW was 16.6% (n=43,402) of which 6.7% (n=2889) were VLBW and 5.6% (n=2433) were having ELBW. 1.3% (n=3313) were excluded from study due to unknown BW. Women aged 10–19 years had a higher risk of LBW (Crude odd ratio (OR) 1.72 (1.64, 1.80) $p<0.001$) VLBW (OR 2.12 (1.85, 2.44) $p<0.001$) and ELBW (OR 1.82 (1.55, 2.14) $p<0.001$). Other factors that contributed to LBW were ethnicity, primigravida, income, BMI, smoking, marital status, anaemia, preeclampsia, prematurity and IUGR.

**Conclusions:** LBW indirectly measures the health of mother and child. Risk of Caesarean Section as mode of delivery was high in this study. We also see first time mothers with LBW babies. Educating women on importance of antenatal care, advice on quitting smoking and educating adolescents to delay child bearing by knowing their reproductive and sexual rights is an important measure to minimize LBW. Efforts must be made to improve maternal nutritional status particularly anaemia and management of high risk pregnancies. There were insufficient numbers to conclude if multiple pregnancies, alcohol and drug abuse as variables leading to LBW.
OUTPATIENT VERSUS HOSPITAL MANAGEMENT AFTER 3 DAYS OF LATENCY IN PPROM

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Objectives: To evaluate whether outpatient management after initial admission in women with pPROM > 24 weeks is a safe alternative for prolonged hospital stay.

Method: Retrospective cohort study including all women admitted between January 1, 2007 and June 30, 2014 with a diagnosis of preterm prelabour rupture of membranes (pPROM) between 24 and 36 days. All women were admitted to the hospital for at least 7 days if undelivered. Erythromycin was administered during this period. Prior to 34 weeks pulmonary maturation was enhanced by corticoids. Starting from January 2011 outpatient follow-up was offered to all undelivered women after 7 days. Pregnancy complications and perinatal outcome were analyzed. Statistical analyses were realized with SPSS 20 for windows.

Results: Of 138 women undelivered after 72 h, 36.9% (n=51) were managed as outpatient. Characteristics of both groups were comparable. Latency time until delivery (p=0.001) and gestational age at delivery were higher in the outpatient group (p=0.004). More chorioamnionitis was found in hospital group (p=0.006). Combined perinatal morbidity was significantly higher in the hospital group, (p=0.01). A subgroup analysis of women, undelivered after 7 days of hospital admission (n=88) confirmed that outpatient management was associated with a significantly longer latency period, higher gestational age at birth and shorter neonatal hospital stay.

Conclusions: Outpatient management after initial admission is associated with a longer latency period until delivery and better perinatal outcome than prolonged hospital stay. Prospective studies are indicated in order to reduce selection bias and better define criteria for the selection of candidates who benefit from this approach.

OUTPATIENT VERSUS HOSPITAL MANAGEMENT AFTER 3 DAYS OF LATENCY IN PPROM

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Objectives: To determine the maternal demographic, obstetrical and intrapartum factors that may predict prolonged neonatal length of stay (LOS) with term delivery.

Method: We obtained the obstetrical electronic records of over 8,000 term (> 37 weeks) singleton neonates delivered in 2013 in our health system and analyzed the neonatal LOS using Chi-square, student T test and regression analysis as indicated.

Results: There were 6791 valid neonatal LOS: the mean SD was 1.05 (0.21), and the median was 1.0 day. Prolonged LOS defined as >4 days occurred in 319 (4%). Prolonged neonatal LOS was significantly positively associated with maternal BMI, drug abuse, smoking, diabetes, hypertensive disorders, chorioamnionitis, antepartum hemorrhage, second stage of labor duration and cesarean section, whilst being married and Asian ethnicity seem to be protective. Intrapartum treatment (antibiotics, antihypertensives and magnesium sulfate), umbilical blood gases and Apgar scores also showed significant correlations with prolonged neonatal LOS.

Conclusions: Prolonged neonatal LOS is not a rare incidence. Intrauterine growth restriction and GDM are associated with late IUFD in comparison to early IUFD.
tal compromise, which leads to prolonged hospitalization of the newborn.

**P0529**

**PROFILES OF INTRA UTERINE FETAL DEATH IN A NIGERIAN TERTIARY HOSPITAL**

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**Objectives:** To determine the prevalence, causes and recurrent rate of intra uterine fetal death (IUFD).

**Method:** This retrospective study was conducted at department of Obstetrics and Gynecology, Nnamdi Azikiwe University Teaching Hospital, Nnewi, south-east Nigeria over a five-year period. In this study death of the fetus in-utero after 28 weeks of pregnancy was taken and death of the fetus during labour was excluded.

**Results:** During the time period the total number of deliveries was 6239 and the total number of patients with IUFD was 124 (1.99%). Majority (95.2%) occurred at term while 4.8% occurred at preterm gestation. The peak incidence was seen among women 26–30 years of age with most of them being primiparous (29.8%). Among 124 cases there were 122 singleton pregnancies (98.4%), while 2 (1.6%) were multiple with both fetuses dead. In majority of cases, the cause was unexplained (32.3%), followed by abruptio placentae (11.3%), preeclampsia (5.6%), and chorioamnionitis (4.0%). Twenty two women had previous IUFD, given a recurrent rate of 17.7%.

**Conclusions:** The prevalence of IUFD was high and majority are unexplained with high predisposition of occurrence at term gestation. The recurrent rate was 17.7%. There is need to strategize means of preventing and identifying danger signs of imminent IUFD during antenatal period.

**P0530**

**ADOLESCENT PREGNANCY AND OBSTETRIC COMPLICATIONS IN NORTHERN GREECE**

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**Objectives:** The aim of this study is to report on pregnancy rate and obstetrical complications in adolescent women at two University Hospitals in Northern Greece.

**Method:** A ten year (2004–2014) retrospective study of medical records from both departments was conducted. During the latter, socioeconomic characteristics, type of delivery, and complications, such as first trimester miscarriages, preterm labor and preeclampsia were recorded.

**Results:** Adolescent pregnancies (729) accounted for 5.5% of all deliveries (12800), with an average maternal age of 15.2 years (range 14–17). 161 pregnancies were managed in Thessaloniki’s department and 569 in Thrace’s. The difference may be due to the significant proportion of Muslims and immigrants in Thrace’s population. Moreover, 168 patients (23%) had first trimester complications, including miscarriages (96.1%), three hydatidiform mole pregnancies and two with fetal congenital malformations. Vaginal delivery was accomplished in 441 (60.5%) whereas Cesarean delivery in 288 (39.5%). The rate of preterm birth in teen mothers was 35.7% (260) and hypertension was evident in 11% (80).

**Conclusions:** The incidence of teenage pregnancies depends on socioeconomic factors. Teenage pregnancies are considered as high risk for obstetrical complications and are often unplanned with inadequate prenatal care. Prevention of adolescent pregnancy, by means of effective contraception programs and sexual education would decrease its frequency. Intensive care of pregnant adolescents could further reduce pregnancy complications.

**P0531**

**VALIDATION OF REGISTER-BASED INFORMATION ON SPONTANEOUS SECOND TRIMESTER DELIVERIES**

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**Objectives:** To validate the diagnoses of spontaneous second trimester deliveries (16+0 to 26+6 weeks) recorded as miscarriages in the Danish National Patient Registry (the Patient Registry) or spontaneous deliveries in the Danish Medical Birth Registry (the Birth Registry).

**Method:** In a cohort of 2908 women with a first spontaneous delivery in the second trimester and a subsequent delivery in 1997–2012, we reviewed a representative sample of 688 medical records. We searched for clinically important information and calculated positive predictive values of the registry diagnoses stratified by type of registry, as well as sensitivity, specificity, and positive predictive values of risk factors, obstetric complications and prophylactic interventions.

**Results:** Spontaneous preterm delivery in the second trimester was confirmed in 621/688 patients (90.3%). There was a good agreement (kappa > 0.6) between medical records and the registries regarding risk factors, pregnancy complications and prophylactic procedures of cerclage. However, a correct diagnosis of cervical insufficiency had a sensitivity of 45% and a low kappa value (37%). Some important maternal, fetal and placental conditions were only available in the birth registry, whereas information such as antepartum fetal death, infections, clinical presentation and cervical length at admission were missing in both registries.

**Conclusions:** The two medical registries together identify 90% of spontaneous second trimester deliveries. Register-based information on presumed etiology and relevant fetal and maternal variables need to be improved. We suggest that all pregnancies ending after a viable fetus has been seen by ultrasound at the start of second trimester are included in the Birth Registry and described by appropriate variables.

**Human Sexuality**

**P0532**

**DETERMINANTS OF COITAL SEXUAL FREQUENCY AND ADAPTATIONS DURING PREGNANCY IN A SOUTHWESTERN NIGERIAN TOWN**

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**Objectives:** To determine the trends in the frequency of coital intercourse in pregnancy, the factors responsible for these changes and adaptations by couples in Sagamu, Southwestern Nigeria.

**Method:** This cross-sectional survey, was conducted among 364 pregnant antenatal clinic attendees, selected by simple random sampling at the Olabisi Onabanjo University Teaching Hospital, Sagamu. A structured interviewee-administered modification of the “Pregnancy and Sexuality Questionnaire” was used to obtain data. Data obtained was analysed with the use of SPSS version 17.
Results: Decline in coital frequency occurred in (51.3%) of respondents; with increasing maternal age (p=0.016, 95% CI: 0.013–0.017), monogamous marriage setting (p<0.001), duration of marriage (p<0.001), and awareness of HIV status (p<0.001) having significant deterrent effects. Parity (p=0.355, 95% CI: 0.345–0.364) and co-habitation with spouse (p=0.094, 95% CI: 0.088–0.099) however had no similar effect. Although Sexual dysfunction was observed (29.6% of respondents), this decline in frequency was caused mainly, by uncomfortable position (51.7%). Consequently, the commonest change noted was decreased use of the man-on-top position from 83.4% of the participants before pregnancy; to 32.7% during pregnancy. Most of the participants (76.6%) recommended continued coital activity in pregnancy.

Conclusions: Coital sexual decline in pregnancy observed in Sagamu is less prevalent than reported and physical discomfort is mainly responsible for this decline. Health care providers can help couples maintain positive sexual behaviour in pregnancy against STIs and HIV.

P0533
COMPREHENSIVE MARITAL COUNSELLING FOR IMPROVING SEXUAL DESIRE AND SEXUAL INITIATION: A NARRATIVE REVIEW

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Objectives: The new perspective in the sex therapy field is desire, pleasure, and satisfaction. The old perspective was focused on arousal, intercourse, and orgasm. This narrative review was conducted for exploring of comprehensive marital counselling for improving sexual desire and sexual initiation.

Method: In this study, researchers conducted their computer search in public databases Google Scholar general search engine, and then more specific: Science Direct, ProQuest, SID, Magiran, IranDoc, Pubmed, Scopus, cochrane library, and Psych info; Cumulative Index to Nursing and Allied Health Literature (CINAHL), using Medical Subject Headings (MeSH) keywords, and selected relevant articles to the study subject from 2005 to 2015. Quality assessment of full text studies was performed by two independent reviewers. Researchers reviewed summary of all articles sought, ultimately used data from 9 full articles and two books to compile this review paper.

Results: Review of literature led to arrangement of three general categories of “Couple Counselling based on Good Enough Sex (GES) approach”, “Couple counselling based on securely bonded couples”, and “Couple counselling based on sexual style education”.

Conclusions: Based on current review finding, a comprehensive sexual health counseling can be effective for improving sexual desire and sexual and marital satisfaction. In addition, a collaborative team (physician, couple therapist, and other professionals) work in comprehensive assessment, counselling, treatment, and prevention program of sexual problems and disorders.

P0534
SEXUAL FUNCTION AND ATTITUDE TOWARDS IT IN POSTMENOPAUSAL WOMEN WITH DIFFERENT ETHNICITIES: A CROSS-SECTIONAL STUDY IN JAHROM, IRAN

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Objectives: Sexual function is affected by personal and interpersonal factors, familial and social traditions, culture, religion, menopause, and increase of age. The present study aimed to investigate the prevalence of sexual dysfunction and its effective factors in postmenopausal women with three different ethnicities in Iran.

Method: This cross-sectional study was conducted on 746 postmenopausal women between 50 and 89 years old who had referred to Honoree clinic, Jahrom in 2013.Among the study participants, 42.4% were Arab, 33.5% were Persian, and 24.1% were Lor. Female Sexual Function Index (FSFI) was used to gather the study data. P-value <0.05 was considered as statistically significant.

Results: The participants’ mean age was 60.10±6.89 years and the total mean score of FSFI was 19.31±8.5. In addition, 81.5% of the women had sexual dysfunction (FSFI<26.55) and only 147 women (18.5%) had normal sexual function (FSFI>26.55). The frequency of sexual dysfunction was 75.3% in Arabs, 83.2% in Persians, and 86.1% in Lors. Besides, the most prevalent sexual disorder was dyspareunia in Arab women and arousal disorder in Persians and Lors (p<0.001).

Conclusions: The results of this study showed that sexual dysfunction were highly prevalent among postmenopausal women. The most prevalent sexual disorder was dyspareunia in Arabs and arousal disorder in Persians and Lors women. So sexual disorders were highly prevalent among postmenopausal women and different ethnicities.

P0535
SEXUALITY DURING SENILITY

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Objectives: To evaluate the epidemiological aspects of sexual life during the senility period.

Method: Retrospective study at Endocrinology Gynecology outpatient from Disciplina de Ginecologia do Departamento de Obstetricia e Ginecologia do Hospital das Clinicas da Faculdade de Medicina da Universidade de Sao Paulo. The length of study was 10 years. We included patients aged more than 65 years old. We evaluate the sexual activity during the senility period.

Results: 409 patients informed the sexual life. Of these cases, 331 and 78 patients reported no sexual intercourse and sexual active, respectively. The majority of women aged between 65 and 69 years (n=70). After 70 years, only 10.3% had regular sexual intercourse.

Conclusions: Almost 20% of the senility patients kepted with sexual intercourse.

P0536
FEMALE SEXUAL FUNCTION IN ADOLESCENTS WITH CONTRACEPTIVES

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Objectives: The aim was investigate the sexual function of adolescents using contraceptive methods.

Method: Observation study, exploratory, analytical and cross, recruited in a public family planning clinic. Adolescents using contraceptive methods and having sexual activity with the same partner from the last month were investigated. We used the female sexual function index (FSFI) that assessing areas like desire, excitation, lubrication, satisfaction, orgasm and dyspareunia.

Results: 128 adolescents were selected. According to date of FSFI, the total score was 26.6 (±5.7). The orgasm domain showed lower value 4.0 (±1.5). As the prevalence of sexual dysfunction in adolescents, 38.3% had suggested values for these symptoms and 18.0% score to
A STUDY OF PUBIC HAIR REMOVAL AND GENITAL GROOMING PRACTICES IN PROVINCIAL AUSTRIA

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Objectives: The study aims to examine hair removal and grooming practices in women and the correlation of changes in their sexuality as well as occurrence of genital infections.

Method: Observational data including age, pubic hair growth and occurrence of genital infection as well as hairstyle and application of body styling was gathered from 1795 women, including 120 pregnant, attending gynaecological examination in a provincial area of Austria. Through a questionnaire, 405 women submitted data about preferred methods, frequency and reasons for pubic hair removal along with subjective changes in their sexuality as well as incidence of genital infections.

Results: 76% of participants have practiced pubic hair removal within the preceding four weeks of examination. This includes 91% of the pregnant patients and 97% under the age of 20 who practice bare-body hair removal. Middle-aged women exhibit a variety of hairstyles. 83% cite hygiene as a reason for removal. 40% do it as part of their lifestyle to feel young and attractive. 13% of the women experienced their sexual drive increase. 10% practice pubic hair removal for their partners. 10% attribute itching, burning and recurrent infections to pubic grooming. 5% have noticed a decrease in occurrence of infections.

Conclusions: Pubic hair removal and genital grooming is a standard practice with Austrian women. Younger women tend to practice bare-body grooming up to three times a week. Middle-aged women groom less frequently but exhibit different hairstyles. Although no statistically significant link between pubic hair removal and incidence of genital infections was observed, about half of the participants expressed feeling cleaner, more attractive and more sexual after pubic grooming.

SEXUALITY IN MENOPAUSE

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Objectives: Evaluate sexual function in menopausal women users or not of HRT.

Method: It is a cross-sectional observational study. The sample was comprised of 60 women who are in the climacteric period, of which 30 do not use HT (group 1) and 30 which make use of HRT (group 2). Inclusion criteria are: patients already in menopause with clinical diagnosis or who underwent bilateral oophorectomy. Exclusion criteria are patients with mental illness or psychiatric disorders and who have more than 65 years. Brazilian version of the Female Sexual Function Index (FSFI) was used to assess sexual activity in the last four weeks.

Results: The sample consisted of patients between 46 and 63 years, with both homogeneous groups. Regarding the evaluation of the questionnaire was significance FSFI desire domain statistical only ($z = 3.51, p=0.0000$), with the highest average for Group 2 (4.084). There was no difference in sexual performance between both groups.

Conclusions: In this study the use of HRT had a positive impact on sexual desire in menopausal women, so its use could be an alternative for women with sexual dysfunction.

FEMALE SEXUAL FUNCTION INDEX (FSFI) IN WOMEN WITH DIAGNOSIS OF GENITAL LESION INDUCED BY HUMAN PAPILLOMAVIRUS

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Objectives: The human papillomavirus (HPV) infection is the most common sexually transmitted disease. Patients with clinical HPV infection has reported negative feelings related to sexual intercourse, as well as real sexual dysfunction including decreased desire and arousal, and decreased vaginal lubrication, leading to dyspareunia. The Female Sexual Function Index (FSFI) was first described in 2000 and validated in Brazil in 2007 with acceptable statistical validity and safely discriminating between women with and without sexual dysfunction. This study aimed to evaluate the presence or absence of sexual dysfunction in women with genital lesions induced by HPV applying the FSFI questionnaire.

Method: This is primary, analytical, observational and cross-sectional study. A total of 45 patients between 18 and 60 years old were selected in the Lower Genital Tract Pathology and Colposcopy Clinic of the University Hospital Samuel Libanio – University of Sapucai Valley, Pouso Alegre, Brazil – diagnosed with genital HPV induced lesions. The questions were gathered in six domains: desire, excitement, lubrication, orgasm, satisfaction and discomfort/pain. Women with lower scores than or equal to 26.55 should be considered to have sexual dysfunction. The Mann-Whitney and Kruskal Wallis tests for statistical evaluation were used.

Results: Forty-five patients were evaluated with HPV-induced lesions aged 18–60 years old (average 38.8 years). Of these patients, 21 (46%) had global score in the questionnaire above 26.55 (average 30.28), and 24 patients (54%) below 26.55 (average 18.21) with a significant difference. When analyzed separately we found that the values for the domains orgasm and satisfaction were significantly lower in the group with sexual dysfunction (p=0.00).

Conclusions: Sexual function is impaired in more than half of women with genital lesion diagnostic induced by Human Papillomavirus. The areas with the lowest scores were orgasm and satisfaction.
tively, and the difference was not statistically significant (p=0.205). The accuracy within 10% of actual birth weights was 69.5% and 72% for both clinical estimation of fetal weight and ultrasound, respectively, and the difference was not statistically significant (p=0.755).

Conclusions: The accuracy of fetal weight estimation using Dare's formula is comparable to ultrasound estimates for predicting birth weight at term.

P0541

ROLE OF TRANSPERINEAL ULTRASOUND IN PRETERM LABOR

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Objectives: To investigate the reliability of, and patient satisfaction with transperineal ultrasound (TPUS) performed by obstetrical team on duty in case of preterm labor.

Method: Sixty Pregnant patients between 28 and 37 weeks of amenorrhea (WA) with PL were included. Three residents and one senior took part in the study. TPUS and transvaginal ultrasound (TVUS) measurements were compared. Correlation was assessed using the Pearson coefficient and agreement study used Bland and Altman plot. The patient’s discomfort and preference for each method were assessed with a questionnaire. The Receiver Operative Characteristic (ROC) Curves of transperineal and transvaginal measurements were elaborated to determine the threshold value of CL predictive for preterm delivery.

Results: 60 patients were included. Median CL measurements with the transperineal and the transvaginal techniques were, respectively, 25.3 mm (0–53) and 27.3 mm (4–51). Correlation was good and significant (R= 0.95; p<0.0001; 95% CI; −0.032–0.170). The Bland-Altman plot confirmed a satisfactory agreement (4.1%; 95% CI; 0.23–7.8%). The cut-off point was 25mm for TPUS and 22.8mm for TVUS.

Conclusions: In case of Preterm labor, cervical length measurement with transperineal ultrasound seems reproducible and can be performed by the obstetric duty team.

P0542

ULTRASOUND USAGE IN OBSTETRICS AND GYNECOLOGY IN TERTIARY CARE HOSPITAL IN RWANDA

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Objectives: One focus for improvement in maternal and perinatal mortality is the application of low cost, appropriate technology. Every district hospital in Rwanda is equipped with an ultrasound and ultrasound training has been introduced as a key component of the residency curriculum. The objective of this study was to evaluate the use of ultrasound in obstetrics and gynecology acute care management.

Method: We evaluated the role of ultrasound in triage for all patients admitted to the University Teaching Hospital of Kigali (CHUK) from 11/2014 to 2/2015. CHUK is one of two tertiary referral hospitals in Rwanda with a catchment of 29 district hospitals. It is one of two primary teaching hospitals in Rwanda. Residents in Obstetrics and Gynecology are the first line caregivers for all patients presenting to the obstetrics and gynecology triage area. We examined patient demographics, indications for triage evaluation, pre-ultrasound diagnoses, post ultrasound findings and post-ultrasound diagnoses. Impact of ultrasound on clinical management will be reported separately.

Results: During the study period, 386 patients were evaluated and admitted to the obgyn unit. All patients received an ultrasound in triage unit prior to admission. The majority of patients (69%) were 18–34 years of age, primiparous (32%), and referred from district hospitals (52%). The majority (75%) were pregnant. Fetal well being was the indication for the majority of ultrasounds performed (39%). Other obstetric indications (presenting complaints/prescan diagnoses) included: bleeding in pregnancy (abortion, molar pregnancy, and placental evaluation) and postpartum infection/periurethritis (8%).

Conclusions: We report the point of care use of ultrasound in a large tertiary care hospital in Rwanda. In our setting, all patients received an ultrasound by an MD in the obgyn triage unit prior to hospital admission. Ultrasound is a key component of the obgyn assessment in this tertiary care setting by reducing diagnostic delays.

P0543

USEFULNESS OF PET/CT SUV AND PROGNOSTIC FACTORS IN PATIENTS WITH ENDOMETRIAL CANCER (ENDOMETRIOID ADENOCARCINOMA)

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Objectives: The incidence of endometrial cancer has been increasing even in young people. In particular, endometrioid adenocarcinoma accounts for 90% or more of the cases. We performed this study to clarify the relationship between the histological degree of differentiation and the clinical data on fluorodeoxyglucose (FDG) accumulation in patients with endometrial cancer (endometrioid adenocarcinoma).

Method: Twenty-six patients with endometrial cancer (endometrioid adenocarcinoma) who received PET/CT during the period from April 2008 to September 2014 at our hospital were included in the study. After obtaining the standardized uptake value (SUV) of PET/CT in the 26 patients with Grade 1 and Grade 2 cancer, we analyzed the relationship between the SUV and the number of positive cells in tumor and the levels of glucose transporter 1 (Glut 1), hexokinase II (HK II), and glucose-6-phosphatase-α.

Results: An overall significant difference based on the various tests performed was confirmed between the Grade 1 and Grade 2 endometrioid adenocarcinoma (P=0.046) patients. A positive correlation was confirmed between the SUV and tumor area (R=0.418, P=0.034) in patients with Grade 1 and Grade 2 endometrioid adenocarcinoma, and between the SUV and tumor area in Grade 1 patients (R=0.489, P=0.038), while a negative correlation was confirmed between the SUV and G6Pase-α (R=−0.475, P=0.046).

Conclusions: A significant difference in the SUV was confirmed between the Grade 1 and Grade 2 endometrial cancer (endometrioid adenocarcinoma) patients, and this was confirmed to be useful for diagnosis of the histological degree of differentiation. In addition, a relationship was also confirmed between tumor size and degree of FDG accumulation, and the data suggest that G6Pase-α was related to FDG accumulation in patients with well-differentiated endometrial cancer (Grade 1).

P0544

HYDRONEPHROSIS COMPLICATED WITH UTERINE LEIOMYOMA

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Objectives: We manage uterine leiomyoma patients conservatively, they are complicated with hydronephrosis rarely. The patients with hydronephrosis lack in subjective symptoms, so we need to mind and manage them. We examined the hydronephrosis cases complicated with uterine leiomyoma and search of the main point to keep in mind in the management.

Method: We performed a search of 24 patients from the Department of Gynecology at Osaka City University Hospital for all patients with
uterine leiomyoma complicated with hydronephrosis diagnosed in drip infusion urography (DIP) with operation (15 patients) or observation (7 patients) in the years 2007 and 2015. Control is 154 cases without hydronephrosis observed by specialized ambulatory care of uterine leiomyoma in our hospital. We measured leiomyoma volumes and degree of renal pelvis expansion by ultrasonography or MRI, and we added DIP to the patients with renal pelvis expansion and evaluated presence and grade of hydronephrosis.

Results: All 24 hydronephrosis cases were recognized on the right side. 3 cases were recognized on both side. The leiomyoma nodules which grew in retroperitoneal cavity were seen in 6 cases among operation cases, and severe adhesion in retroperitoneal cavity due to endometriosis was seen in 2 cases. A Significant difference was found in the volume of the pelvic part maximum myoma nodule of hydronephrosis group and no hydronephrosis group (p=0.013). Positive correlation was found in the myoma nodule volume and expansion degree of right renal pelvis (rs=0.413).

Conclusions: Hydronephrosis complicated with uterine leiomyoma of was seen in right side. Positive correlation was found in the myoma nodule volume and expansion degree of renal pelvis. We estimated hydronephrosis in retroperitoneal cavity is related to leiomyoma growing in retroperitoneal cavity and endometriosis complicated with leiomyoma.

P0545
ROLE OF PET/CT IN DIAGNOSING TUBERCULAR TUBO-OVARIAN MASS IN FEMALE GENITAL TUBERCULOSIS
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Objectives: To compare findings with 2-deoxy-2-[(18)F]fluoro-D-glucose positron emission tomography combined with computed tomography ((18)F-FDG- PET/CT) with findings obtained using ultrasound (US), magnetic resonance imaging (MRI), and Laparoscopic findings in patients with proven tubercular tubo-ovarian masses.

Method: Forty patients with proven tubercular tubo-ovarian masses underwent (18) F-FDG-PET/CT imaging and the findings were compared with US (for all patients), MRI (for 30 patients), and laparoscopic findings (for 34 patients).

Results: Twenty two patients (55%) had unilateral tubo-ovarian masses, with activity in 10 masses (25%); 16 patients (40%) had bilateral tubo-ovarian masses, with activity in all masses; and 2 patients (5%) had unilateral space-occupying lesions, with activity in 1 lesion. The detection rates of tubo-ovarian masses with (18)F-FDG-PET/CT was similar to, but the characterization of adnexal masses was less than, those obtained with CT or MRI. Finally, (18) F-FDG-PET/CT was equally accurate as laparoscopy in detecting the presence, laterality, and activity of tubo-ovarian masses.

Conclusions: Imaging with (18) F-FDG-PET/CT is noninvasive and appears to be clinically useful for the diagnosis of tubercular tubo-ovarian masses.

Infections in Obstetrics and Gynecology
P0546
FACTORS INFLUENCING ANTIRETROVIRAL USE DURING PREGNANCY AMONG WOMEN DELIVERING AT MBARARA REGIONAL REFERRAL HOSPITAL
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Objectives: The aim of this study was to determine the factors influencing the use of antiretroviral drugs for the prevention of mother to child transmission of HIV by women delivering at Mbarara Regional Referral Hospital.

Method: In this unmatched case control study, HIV positive women in the post-partum period were enrolled between the 15th of February and the 30th of June 2014. Data on socio demographic profiles, number of antenatal care visits, couple counseling and testing for HIV, disclosure of HIV sero status to sexual partner and history of intimate partner violence before and during pregnancy were collected using structured questionnaires. Multivariate logistic regression analyses were performed to determine the associations between these factors and the use of ARVs during pregnancy.

Results: We enrolled 300 HIV positive mothers, 75 were not on ARVs during pregnancy and 225 were on ARVs. Factors to be positively influencing were: Increasing maternal age (AOR=1.1; 95% CI: 1.0–1.2), disclosure of HIV sero status to sexual partner (AOR=4.3; 95% CI: 2.1–8.6), antenatal care visit at least four times (AOR=3.9; 95% CI: 1.8–8.5), couple counseling and testing (AOR=2.5; 95% CI: 1.1–5.5); the factor with a negative influence was history of intimate partner violence during pregnancy (AOR=0.2; 95% CI: 0.1–0.5).

Conclusions: The use of ARVs during pregnancy is influenced by a number of factors. In this study, factors enhancing ARV use were: disclosure of HIV sero status to sexual partners; attendance of antenatal care of at least four times; involvement of male partners in counseling and testing for HIV as couples and increasing maternal age. Intimate partner violence, especially, sexual and physical violence remain a major obstacle to the use of ARVs during pregnancy by women delivering at Mbarara Regional Referral Hospital.
P0548
DEVELOPMENT OF PUTATIVE WORKING DEFINITIONS OF PRENATAL-ONSET GROUP B STREPTOCOCCAL (P-OGBS) INVASIVE DISEASE USING “INTERNET COMMONS” GROUP B STREP (GBS) PARENT AND PROVIDER SOURCES

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Objectives: Develop and justify epidemiologically, clinically graded ("Proven", "Likely", "Possible", or "Atypical") case definitions of previously unclassified invasive prenatal-onset group B streptococcal (P-OGBS) invasive disease in order to inform research, advocacy, public policy, clinical care, and social support. (Classification of early-onset GBS disease is defined as death after birth which misses fetal demise caused by GBS before birth. Therefore, fetal demises caused by GBS are not counted as being due to group B streptococcal disease by public health authorities such as WHO and CDC.).

Method: We used quasi-experimental and qualitative techniques ("gedanken" or logic model research) to collect, record, and analyze GBS-related questions (FAQ’s) submitted to Group B Strep International’s website (www.gzbs-intl.org) or at medical professional meetings from 2000–2012. Questions or requests for information arrived unbidden over the worldwide web (“Internet Commons”) or in response to “Survey Monkey” style inquiries to personal contacts made at professional meetings and through the internet from 2000 to 2012. Language was not restricted, but all analyzed responses were in English to prompt spontaneity. No written consent was obtained and the process and analysis were not IRB-approved.

Results: Twelve years of inquiries and contacts were analyzed. There were no measured differences in question types or topics among parents or providers. (At professional meetings as many as 500 questions were submitted daily making detailed analysis unreliable.) Queries mainly fell into three categories:
1. Clinical “anecdotal cases,”
2. Procedural, e.g., how to facilitate communication of GBS status cards, and
3. Informal non-evidence-based advice for uncommon or unstudied clinical circumstances, e.g., severe penicillin allergy and prior GBS-associated stillbirth.

Classifications of “Proven”, “Likely”, “Possible”, and “Atypical” are proposed for testing.

Conclusions: We utilized “internet commons” and other contacts to post putative clinical, pathologic, and microbiologic working case definitions of “Proven”, “Likely”, “Possible”, and “Atypical” prenatal-onset GBS invasive disease. These proposed definitions may facilitate study of the epidemiology, pathophysiology, and means to further prevent occurrences of prenatal-onset GBS invasive disease.

P0549
RECOGNITION OF PATHOGENIC PATHWAYS TO INTRAUTERINE INFECTION: KEYS TO IDENTIFYING TESTABLE PRIMARY PREVENTION STRATEGIES

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Objectives: Identify and analyze recognized and unrecognized pathways to intrauterine infection.

Method: Large updated biologic/medical databases were examined using applicable search terms.

Results: Pathways to intrauterine infection were identified:
• translocation of microbes from gastrointestinal microbiome/cell constituents (LPS) microflora
• iatrogenic inoculation of cervico-vaginal microflora by cervical manipulation or instrumentation (“membrane stripping”)
• microecologic shift of predominant vaginal microflora mediated by hygiene practices, change of sexual partner(s)/practices, antimalarial use, dietary-style microbiome shifts
• hematologic transport of microbes (e.g., Listeria spp., enteroviruses, etc.) initiated by systemic exposure/infection

Conclusions:
1. Potential pathways to intrauterine infections were identified and illustrated to prompt investigation of new basic and clinical primary prevention research strategies.
2. Six novel pathophysiological pathways were discovered by “information mining”.

P0550
ADHERENCE TO ANTIRETROVIRAL THERAPY (ART) AMONG PEOPLE LIVING WITH HIV/AIDS IN A TERTIARY HOSPITAL IN NORTHERN NIGERIA

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Objectives: To determine the knowledge, attitude and practice of adherence to antiretroviral therapy among people living with HIV/AIDS in a tertiary hospital in Northern Nigeria.

Method: A cross-sectional descriptive study was carried out using systematic sampling technique among 334 clients by means of interviewer-administered questionnaire. Data was analyzed using SPSS version 20.

Results: Adherence to antiretroviral therapy was 75.4%. The knowledge and attitude on ART were 67.7% and 52.1% respectively. Forgetfulness (60.1%), non-availability (25.7%) and side-effects (5.1%) of drugs were the major causes of failure of patients to adhere to their drugs.

Conclusions: Adherence to ART of 75.4% is lower than the accepted standard of ≥95%. Good adherence is imperative if elimination of mother to child transmission of HIV is to be achieved.

P0551
THE STUDY OF POLYMORPHOUS VARIANTS OF TNF GENE IN PREGNANT WOMEN WITH MYCOPLASMA INFECTION IN THE POPULATION OF KAZAKHSTAN

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Background: In recent years there has been growth of infections caused by mycoplasma infection. At present, careful attention of researchers is focused on molecular genetic aspects of the formation of microorganisms’ long-term persistence. Persistent infections are characterized by the widespread occurrence, complexity of the pathogenesis, severity of complications and lack of effective treatment. The search of the susceptibility markers to the infection among alleles of TNF gene is a new, under-investigated aspect of the research.

Objectives: To define the role of polymorphism 308 G>A in TNF-α gene in case of mycoplasma infection.

Method: 98 DNA specimens from pregnant with mycoplasma infection and 100 DNA specimens from healthy women were used to determine the single nucleotide polymorphism 308 G>A in THF-α gene. All respondents belonged to the Kazakh nationality. The DNA amplification with PCR was performed on the “BioRad” amplifier (USA) in 23 mlc of the reaction mixture. PCR was performed according to the scheme: initial denaturation (95°C, 5 min); 30 cycles of amplification with the following parameters: 1) denaturation – 94°C, 1 sec; 2) annealing – 66°C, 1 sec; 3) synthesis – 72°C, 1 sec; followed by incubation at 72°C for 7 minutes.
Results: Frequency of the normal GG genotype in the study group was 12.8±3.4%, in the control group (30.0±4.6%), the differences were statistically significant (χ²=8.5; p<0.004). Significantly higher frequency of homozygous for the mutant allele AA genotype was obtained – 19.3±3.9% and the mutant A allele – was 52.1±3.6% in the study group in contrast to the control group (6.0±2.4, 38.0±3.4, χ²=7.8 and χ²=5.9 respectively; p<0.05). The frequency of normal G allele was 47.9±3.6% in the study group and it was significantly lower than in the control group (62.0±3.4; χ²=7.8; p=0.005).

Conclusions: The frequency of AA and GA genotypes carriage was significantly higher among pregnant women in the study group. The presence of homozygous mutant of AA genotype increases the risk of pro-inflammatory processes in the body by 6.7 times. Carriage of GA genotype variant increases this risk by 2.6 times. Obtained results indicate the presence of interrelation of the carriage of pathological mutant A allele of the TNF-α gene with progression of the studied pathology. Carriage of unfavorable AA and GA genotypes of TNF-α gene is statistically significant genetic risk factor for inflammatory processes in pregnant women with mycoplasma infection.

P0552
A COMPARISON OF THERAPEUTIC EFFECTS OF THE ZATARIA MULTIFLORA VAGINAL CREAM AND ORAL METRONIDAZOLE TABLET ON THE TREATMENT OF TRICHOMONAS VAGINALIS AND BACTERIAL VAGINOSIS IN REPRODUCTIVE AGED WOMEN

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Objectives: Vaginitis is a common gynaecologic issue among reproductive aged women and 75% of women experience significant frequent medical visits. Although, metronidazole given orally has been the standard treatment in TV and BV, an increasing number of cases with metronidazole resistance and some side effects is being reported. The majority of people are using traditional medicines including herbal medicine. Antibacterial effects of Z. multiflora have been observed in vitro and vivo activity. This study proposed to compare the therapeutic effects of Z. multiflora vaginal cream and oral metronidazole on treatment of TV, BV and BV/TB co infection.

Method: This was a double blind clinical study on 420 women affected by BV, TV and BV/TB co infection. They were randomly divided to three groups of 140 participants. Diagnostic criteria were gram stain and wet smear. Z. multiflora vaginal cream and placebo tablet for 7 days were given to experimental groups. Metronidazole tablet 250 mg twice a day and placebo vaginal cream for 7 days were prescribed to control groups. After 7 days therapeutic effects on patients’ clinical symptom and sign, gram stain and wet smear criteria were observed. Data was analysed by Mann-Whitney U, Wilcoxon and Fisher exact tests.

Results: Therapeutic effects of Z. multiflora vaginal cream and oral metronidazole tablet are similar on BV, TV and BV/TB co infection. Therefore, it could be an alternative option to BV, TV and BV/TB co infection treatment for those who suffer from side effects of metronidazole.

P0553
RUBELLA INFECTION: A REAL RISK AMONG NIGERIAN WOMEN? PREVALENCE OF RUBELLA ANTIBODIES IN A GYNECOLOGICAL POPULATION

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Objectives: Data on the sero-epidemiology of rubella in gynaecological populations are few as most surveys carried out have been largely on the antenatal population by which time it is unsafe to vaccinate the sero-negative mothers, thus exposing the fetuses of these cohort of women to the dreaded risk of Congenital Rubella Syndrome (CRS). The Objective of this study is to determine the prevalence of rubella antibodies in a cohort of infertile women.

Method: A descriptive cross-sectional survey of presence of rubella antibodies (IgG) in women who presented at the Bridge Clinic Lagos for in vitro fertilization. The rubella (IgG) antibodies of the women were detected in the sera using the quantitative ELISA technique.

Results: A total of 331 women were studied. Their ages ranged between 25–50 years. Majority, 65% (214/331) of the women were aged between 41 to 50. 99% were Nigerians while 1% was of Caucasian descent. Of the Nigerians, 52% (172/331) were Yorubas, 27% (91/331) Igbos, and 0.03% (11/331) Hausas, while 21% belonged to other tribes. The prevalence of rubella (IgG) antibodies was 91%. There was no statistically significant relationship between age, tribe and rubella immunity (p>0.05).

Conclusions: There is a higher prevalence of rubella antibodies in Nigerian women as compared with earlier studies suggesting endemicity. About 1 in 10 women still remain seronegative and therefore at risk of CRS when pregnant. Routine vaccination against rubella is recommended complemented by routine screening for rubella (IgG) antibodies at the gynaecological clinics and vaccination of the identified seronegative women before they get pregnant.

P0554
SEROPREVALENCE AND RISK FACTORS FOR HEPATITIS C VIRUS (HCV) INFECTION IN PREGNANT WOMEN ATTENDING PUBLIC SECTOR TERTIARY CARE HOSPITAL IN HYDERABAD SINDH PAKISTAN

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Objectives: To find out the seroprevalence of HCV antibodies in healthy pregnant women and to assess the potential risk factors for HCV infection in HCV positive subjects and in control group.

Method: This cross sectional & comparative study was conducted from 1st January to 31 Dec 2010 in the department of Obstetrics/Gynaecology Unit - I, Liaquat University Hospital Hyderabad. Sera was collected from all admitted pregnant women and they were tested for HCV antibodies on ELISA. Data were analyzed in statistical program SPSS version 16.0.

Results: The seroprevalence of HCV among pregnant population was found to be 4.7% (146) out of 3078 obstetrics admissions. HCV positive women were more likely to have history of (H/O) blood transfusion (OR 1.99, 95% CI 1.26–3.12), H/O Therapeutic injection use (OR 2.46, 95% CI 1.43–4.26), and H/O surgery (OR 1.72, 95% CI 1.12–2.66) and H/O sharing hold products (OR 1.81, 95% CI 1.14–2.87).

Conclusions: HCV infection was found to be prevalent in young pregnant women of Hyderabad, Sindh, Pakistan. Unsafe blood transfusions therapeutic injections use and surgical intervention had contributed significantly in acquisition of this infection.

P0555
INCIDENCE OF AND RISK FACTORS FOR HERPES SIMPLE VIRUS TYPE 2 (HSV-2) SEROCONVERSION AMONG PREGNANT WOMEN IN UGANDA: A PROSPECTIVE STUDY

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Objectives: To determine the incidence of and risk factors for HSV-
2 sero-conversion among pregnant women in Mulago Hospital, Uganda.

**Method:** This was a prospective study of 200 HSV-2 negative women recruited between 26–28 weeks of gestation from November 2013 to October 2014. We used questionnaires to collect socio-demographic characteristics and sexual history. HIV serostatus was obtained from antenatal records. One hundred and ninety one women had repeat HSV-2 serology by 38 weeks. Negative binomial regression-analysis was used to estimate risk ratios for factors associated with HSV-2 seroconversion.

**Results:** Fifteen (7.9%) of 191 women seroconverted during pregnancy in this study. Having multiple sexual partners in the preceding 6 months and being in polygamous unions were risk factors for HSV-2 seroconversion (aRR, 3.22; 95% CI: 2.01–5.18) and (aRR, 4.24; 95% CI: 1.37–13.26) respectively. In addition, HIV positive status increased the risk of HSV-2 seroconversion (aRR, 4.35; 95% CI: 2.15–8.81). In contrast, sexual debut equal to or above 16 years was protective for HSV-2 seroconversion (aRR, 0.33; 95% CI: 0.21–0.48).

**Conclusions:** The incidence of HSV-2 seroconversion among pregnant women in Mulago Hospital, Uganda was high. Having multiple sexual partners was a risk factor for HSV-2 seroconversion implying a need to strengthen heath education for pregnant women on prevention of genital HSV-2. Furthermore at the booking visit, women at risk of HSV-2 seroconversion may need routine HSV-2 serological screening and a repeat test to be done in the third trimester for evidence of seroconversion. Those who are seropositive would then receive acyclovir at 36 weeks which is known to reduce transmission of HSV-2 to the neonates.

**P0556**

**UROGENITAL MYCOPLASMAS AS A CAUSE OF FEMININE INFERTILITY. PROVINCIAL GINECOBSTETRIC HOSPITAL “DR. JULIO R ALFONSO MEDINA”, MATANZAS, CUBA, 2014–2015**

**M. Arnold. Provincial Ginecobstetric Hospital, Matanzas, Cuba**

**Objectives:** Determine the incidence of Mycoplasmas spp in samples of endocervicals cultures of patients from the Provincial Center of Attention to the infertile couples, to classify the severity of the detected infection and to identify the sensibility-resistance to different antibiotics of the isolated genital mycoplasmas.

**Method:** A transverse descriptive observational study about feminine infertility for genital mycoplasmas was carried out in the Provin- cial Ginecobstetric Hospital “Dr. Julio Rafael Alfonso Medina” in the period comprised between the months of November 2014 and January 2015. The sample was integrated by the 117 patients that completed the inclusion criteria.

**Results:** 56.4% of the analyzed samples was positive, being Ureaplasma urealyticum the most frequent species (83%). The light infections prevailed in 59.09%. The referred symptom was leucorrhea with 42.73%. Ureaplasma urealyticum showed bigger resistance to ofloxacin (82%). Resistance of Mycoplasma hominis to the antibiotics used in the investigation was not seen. The coinfections were more resistant to azithromycin (100%), ofloxacin (90%) and eritromicina (80%).

**Conclusions:** The most frequent microorganism was Ureaplasma urealyticum; the light infections prevailed. Ureaplasma urealyticum was more resistant than Mycoplasma hominis. Both were highly sen-

**P0557**

**A NEW EFFECTIVE ANTIBIOTIC-FREE BACTERIAL VAGINOSIS TREATMENT AT SINGLE-DOSE ADMINISTRATION: A RANDOMIZED MULTICENTER OPEN-LABEL PARALLEL-GROUP TWO-PART STUDY WITH A NOVEL SUSTAINED-RELEASE VAGINAL TABLET CONTAINING OLGOMERIC LACTIC ACID**

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**Objectives:** The prevalence of bacterial vaginosis (BV) is estimated at approximately 15–30% among fertile women and frequent recurrences are common. BV affects many women’s lives negatively especially due to odorous vaginal discharges. First line treatment with antibiotics is associated with adverse events, high relapse rates and an emerging risk of bacterial resistance development. New antibiotic-free treatments with high efficacy at few administrations should be aimed for.

The aim of the present study was to investigate a new sustained release treatment, oligomeric lactic acid (OMLA) vaginal tablet (=pessary), in patients with confirmed BV, evaluating BV clearance, adverse events, and patient acceptance.

**Method:** The study was a randomized parallel-group open-label two-part study at ten gynaecological clinics in Sweden. Non-pregnant fertile women, with confirmed BV according to Amsel’s criteria, could participate. Part A (n=21), a two-week proof-of-concept evaluation, was followed by Part B (n=105), a one-week efficacy evaluation. OMLA vaginal tablet was administrated once (OW) or twice (TW) weekly and in Part B compared to a control group (CG). Main outcome measures were BV-clearance, adverse events and patient acceptance. It was performed according to GCP ICH, approved by the Ethics Committee, registered in a clinical trial database (ISRCTN86053784) and sponsored by Lacucre.

**Results:** The demographics and baseline characteristics were similar in between the groups. Part A (n=21) showed high safety and treatment efficacy already after one week. In the pooled treatment (OW+TW) group the one week BV clearance ratio was 95%. In Part B (n=105) the one week BV clearance ratios were 70.6% in the OW group (p<0.001 vs CG), 80.0% in the TW group (p<0.001 vs CG) and 10.0% in the CG. Pooled data (Part A+B) showed one week BV clearance of 78% in each treatment group. Most adverse events were mild and of short duration. Patient acceptance was high.

**Conclusions:** The novel OMLA vaginal tablet showed a BV treatment efficacy of 78% already after one week at a single-dose administration. Along with a good safety profile, high patient acceptance and no risk of bacterial resistance development, this represents a major improvement in BV treatment.

**P0558**

**EVALUATION OF LOWER GENITAL TRACT INFECTIONS IN WHEELCHAIR-BOUND WOMEN WITH SPINAL CORD LESIONS**

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**Objectives:** Reduced or lost sensitivity is a major problem for wheelchair-bound women with spinal cord lesions. Due to lost mobility and architectonic barriers adequate gynecological care is difficult. In addition, loss of feeling in the genital area can predispose to hygiene problems and genital infections. Since 80% of spinal cord lesions occur in men, studies rarely focus on women’s needs. The objective of this study is to evaluate the prevalence of genital tract infections in these women. This is the first report to analyse the vaginal microbiota in wheelchair-bound women.
Method: This was a cross-sectional case control study. Fifty two women with spinal cord lesions (from the Associação de Assistência à Criança Deficiente, São Paulo, Brasil), were studied. As a control group 57 health women, with no genital complaints, from the same institution, were evaluated. After answering a questionnaire related to reproductive health vaginal and cervical samples were collected. The following tests were performed: wet mount (T. vaginalis and yeasts), vaginal Gram stain (Nugent criteria), yeast cultures, vaginal cultures, T. vaginalis culture, Chlamydia trachomatis PCR, mycoplasmaculture-sand Neisseria gonorrhoeae PCR.

Results: There were no differences between the spinal cord group and healthy women in the prevalence of Trichomonas vaginalis, Candida species, Chlamydia trachomatis, Mycoplasmas and Neisseria gonorrhoeae. The prevalence of intermediate flora (Nugent score 4–6) was higher in women with spinal cord lesions than in control women (14.6% x 1.8%, p=0.0230). This was associated with the need for diapers but not with the location of the spinal lesion.

Conclusions: The prevalence of genital infections in women with spinal cord lesions is low and similar to that found in healthy women. However, the higher prevalence of an elevated Nugent score in the study subjects and its association with the use of diapers suggests that their condition leads to development of an atypical vaginal microbiota not dominated by Lactobacilli. The consequences of this alteration for wheelchair-bound women’s uro-genital health remain to be determined.

P0559
PREVALENCE OF CHLAMYDIA TRACHOMATIS IGG SEROPOSITIVITY IN OVULATORY SUBFERTILE WOMEN WITHOUT VISIBLE TUBAL PATHOLOGY

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Objectives: The aim of this work was to study the incidence of Chlamydia trachomatis IgG seropositivity in ovulatory subfertile women without visible tubal pathology.

Method: This prospective study was conducted at Egypt, Tanta University Hospital Obstetrics and Gynecology Department. Carried out on 400 ovulatory subfertile patients fulfilling the following inclusion criteria: Age from 19 to 35 years old, Regular ovulatory cycle, Bilateral patent tubes by Laparoscopy & Normal semen analysis. The following criteria must be excluded: Tubal adhesions at Laparoscopy, Tubal surgery & endometriosis. All women included in the study was subjected to Full history taking. Complete general and local examination, Routine laboratory investigations (including CBC, liver and renal function tests). Chlamydia Trichomonas immunoglobulin G (IgG) antibody testing by Enzyme Linked Immunosorbert Assay (ELISA) & Diagnostic laparoscopy to detect tubal patency.

Results: Data of 400 couples were collected during the study period which was One year from Tanta University Hospital, those women were admitted for Laparoscopy for detection of the cause of their infertility. Among 280 patients with negative Chlamydia titre 152 of them had primary infertility and 128 had secondary infertility. Among 120 patients with positive titre 56 had primary infertility and 64 secondary infertility. Women in the studied cases were subclassified to 348 patients with patent healthy tubes, 52 patent with weakness of muscles of tubes and with sacculated tubes and a known CAT result were included in this analysis.

Conclusions: The serological test could be an accurate predictor of tubal status, and detection of its IgG antibody is important in screening of cases and prediction of the presence of tubal factor infertile women, thus saving time for infertility workup, due to their high predictive value in detecting tubal affection. Our finding demonstrates that even in absence of tubal pathology, decreased fecundity is a late effect of lower genital tract Chlamydia infections. This might increase the late costs of Chlamydia infections, and as such alter the cost-effectiveness of Chlamydia screening.

P0560
STREPTOCOCCAL TOXIC-SHOCK SYNDROME AFTER TOTAL ABDOMINAL Hysterectomy IN HOSPITAL DA MULHER HELONEIDA STUDART, RJ, BRAZIL

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Objectives: To educate physicians about Streptococcal Toxic-Shock Syndrome as they are often unfamiliar with this rare and life-threatening disease entity. Its clinical manifestations, underlying pathophysiology, diagnostic tools, pathologic findings and management options are reviewed.

Method: Report a case of streptococcal toxic shock syndrome, experienced in the Hospital da Mulher Heloneida Studart in Sao Joao de Meriti, RJ, Brazil.

Results: A young patient, previously healthy, underwent surgery and developed wound infection caused by Streptococcus pyogenes. After onset of clinical symptoms, the evolution was rapidly progressive worsening, leading to patient death. The diagnosis was made by clinical symptoms and was provided treatment with intensive care support, drainage of the focus of infection in the operating room and broad-spectrum antibiotics. Immunoglobulin wasn’t prescribed, because patient died before the diagnosis of Streptococcus pyogenes infection were established.

Conclusions: This case emphasizes that the toxic shock syndrome may develop in the late postoperative period, and this evolution is potential life threatening. Theoretical and practical knowledge of the medical staff can lead to early diagnosis and treatment. Streptococcal Toxic-Shock Syndrome is a very aggressive disease that can lead to death rapidly, so physicians must be aware of the early symptoms of the disease and the clinical signs of severity, to improve results.

P0561
THE PREVALENCE OF LOW RISK TYPE HUMAN PAPILLOMA VIRUS (HPV) 6, 11 AND 57

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Objectives: The aim of this study was to confirm the prevalence of low risk type Human papilloma virus (HPV) 6, 11 and 57 which cause benign disease like genital warts and nasal papillomatosis.

Method: A total of 232 patients are participated in screening using two HPV Genotyping chip kits. The positive results of HPV 6, 11, 57 are targeted and we compared both results.

Results: The positive results for HPV were 82 among 231 samples in both detection tests. Among the Low risk type HPV, positive for HPV 6 was detected in 4 samples and HPV 11 was 1, HPV 57 was 7.

Conclusions: The results of HPV Genotyping chip kits was completely identical. We reconfirmed that HPV type 6, 11, 57 are less common and to make sure the clinical validity, more samples need to be collected.
P0562
POST-PARTUM PELVIC PERITONITIS AND TUBO-OVARIAN ABSCESSES SECONDARY TO SUB-CLINICAL CHORIOAMNIONITIS
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Objectives: 1. To highlight complications of chorioamnionitis. 2. To demonstrate role of multidisciplinary team in managing complex, high-risk cases.

Method: A case report of a case of pelvic peritonitis in a 29 yrs lady, presented 6 weeks following delivery by emergency cesarean section for fetal distress. Patient was low risk primigravida presented in early labour at 41 weeks gestation, V/E showed intact membranes and 1 cm dilatation, stretching and sweeping of membranes done. Patient re-presented next day with history of drainage of liquor which was not proved on speculum examination. Patient presented after 24 hours in established labour of 3 cm dilatation and membranes where not felt on examination. Fetal heart tracing was suspicious and an emergency CS was performed 2 hours after admission.

Results: Thick meconium at cesareaen section, placenta unhealthy with an offensive smell. Histopathology showed marked acute Chorioamnionitis/ funisitis and Streptococcocus milleri isolated. Patient recieved intravenous and oral antibiotics post CS. Presented Chorioamnionitis/ funisitis and Streptococcocus milleri isolated. Patient was taken and sent for microscopy and culture that showed mixed aero-bic growth.

Conclusions: 1) Pelvic peritonitis and tubo-ovarian abscess could have been primary but likely secondary to chorioamnionitis at cesarean section inspite of 6 weeks interval. 2) This case highlights that it is very important to rule out spontaneous rupture of membranes even in term pregnancies. 3) Importance of modern radiology in managing patients with localised pelvic collections.

P0563
THE ANALYSIS OF CLEARANCE TIME AND INFLUENCE FACTORS IN PATIENTS WITH HR-HPV VIRUS
Z. Liu, R. Li, J. Li, G. Wang, C. Wang, Y. Zhou, B. Liu. Dept. of OB/GYN, Peking University Shenzhen Hospital, shenzhen, China

Objectives: To research clearance time of non-aggressive high risk human papillomavirus infection and its influence factors.

Method: This retrospective analysis collected 454 cases of newly diagnosed patients with non-progressive hr-HPV infection, who were treated in Peking University Shenzhen Hospital early detection and treatment of cervical cancer center, from January 2009 to December 2012. We followed up hr-HPV clearance by Hybrid Capture 2 human papillomavirus DNA testing and Liquid-based cytology test. Follow-up continued 6 to 53 months, with a median follow-up time average of 22.27 months. We collected all relevant information to further explore the non-progressive hr-HPV clearance median time and influencing factors.

Results: 454 cases of patients were selected in the study. At the end of the follow-up, 318 cases of patients (70.04%, 318/454) hr-HPV were cleared. The overall clearance time was 3 to 46 months, with a median time of 14 months (95% CI, 12.24–15.76 months). Times of biopsy, number of biopsy points, times of endocervical curettage, with or without cervical loop electrosurgical excision procedure, anxiety states were statistically significant in the univariate analysis. The times of biopsy, with or without LEEP surgery and anxiety states were statistically significant in the COX multivariate analysis.

Conclusions: The median time of non-aggressive hr-HPV infection clearance was 14 months. The times of biopsies, with or without LEEP and anxiety states were the more important factors of non-aggressive hr-HPV infection clearance time. With or without underlying disease probably were the related factors of persistent non-aggressive hr-HPV infection clearance time.

P0564
THE ANALYSIS OF CLEARANCE TIME AND INFLUENCE FACTORS IN PATIENTS WITH HR-HPV VIRUS
Z. Liu, R. Li, J. Li, G. Wang, C. Wang, Y. Zhou, B. Liu. Dept. of OB/GYN, Peking University Shenzhen Hospital, shenzhen, China

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Conclusions: The median time of non-aggressive hr-HPV infection clearance was 14 months. The times of biopsies, with or without LEEP and anxiety states were the more important factors of non-aggressive hr-HPV infection clearance time. With or without underlying disease probably were the related factors of persistent non-aggressive hr-HPV infection clearance time.

P0565
AN OBSTETRIC SEPSIS SCORE – TO PREDICT RISK OF SEVERE SEPSIS IN PREGNANCY AND POSTPARTUM
P. D'Cunha. Father Muller Medical College, Mangalore, India

Objectives: To design an obstetric sepsis score to predict the risk of developing severe sepsis in pregnant and postpartum women.

Material and methods: Study place: Department of OBG, Father Muller Medical College, Mangalore. Study design: Observational retrospective cohort.

- An obstetric sepsis score is created.
- The variables used are temperature, pulse, systolic blood pressure, respiration rate, mental status, SPO2, WBC count, serum lactate.
- This score will be applied to the retrospective cohort of pregnant and postpartum patients with clinical suspicion of sepsis. The primary outcome is women diagnosed to have severe sepsis as according to surviving sepsis criteria. The sensitivity, specificity, PPV and NPV will be calculated for the score and Receiver operating characteristic curves will be constructed.

Results: 51 pregnant or postpartum women were included in the study. 12 women had an obstetric sepsis score ≥6. 16 women devel-
op ed severe sepsis. The obstetric sepsis score had an area under the curve of 0.875 for predicting severe sepsis with sensitivity of 62.5%; specificity of 94.2%; positive predictive value of 83.3%; and negative predictive value of 84.6%.

Conclusions: Reducing overall maternal morbidity and mortality in India needs to be a top priority given our high maternal mortality rate. A tool to help in the identification of sepsis in pregnancy could aid in instituting early and aggressive resuscitation protocols thus reduction of sepsis during pregnancy.

A sepsis scoring system designed specifically for an obstetric population appears to reliably identify patients at high risk for developing severe sepsis. The variables used are simple, routinely available, and familiar to clinicians. Prospective validation is warranted.

P0566
THE PREVALENCE OF GROUP B STREPTOCOCCUS (GBS) COLONIZATION IN KOREAN PREGNANT WOMEN USING SELECTIVE CULTURE MEDIA

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Objectives: Maternal colonization with Group B Streptococcus (GBS) during pregnancy increases the risk of neonatal sepsis by vertical transmission. The prevalence of GBS colonization in Korean pregnant women was reported to be lower than those reported in USA.

The aim of this study was to evaluate the prevalence of GBS colonization in Korean pregnant women using selective media for GBS and the effect of intrapartum antibiotic prophylaxis for culture positive women on early-onset neonatal GBS sepsis.

Method: From December 2014 to February 2015, we collected specimens for GBS colonization from 107 women of ≥20 weeks' gestation who visited our hospital in Korea for prenatal care or for delivery. Specimens were obtained from swabbing both the lower vagina and rectum and then inoculated into a selective Todd-Hewitt broth and CHROMagar StrepB agar (CHROM-B) and were examined for growth in cultures. Women whose cultures were positive for GBS received intrapartum antibiotic prophylaxis.

Results: The mean maternal age was 32.1±5.6 years old and the gestational age (GA) at screening and at delivery were 34.2±2.3 and 35.2±3.4 weeks, respectively. Among 107 women who were screened for GBS, the prevalence of positive recto-vaginal culture was 7.5% (8/107). GBS colonization rates were 10% (5/50) for women whom did preterm delivery and 5.3% (3/57) for full-term delivery. With 122 neonates who were born during this period, the rates of neonatal sepsis were 25.4%(31/122) but none was proven to be infected with GBS.

Conclusions: Our study showed the prevalence of GBS colonization in one Korean hospital pregnant women was 7.5% which was higher than previous reports. For prenatal screening for GBS, the use of GBS selective media and sampling both the lower vagina and the rectum would be useful to detect GBS. Intrapartum antibiotic prophylaxis for culture positive women would be effective in interrupting mother-to-newborn transmission of GBS.

P0567
COMPARISON OF SINGLE DOSE ORAL SECnidAZOLE WITH MULTIPLE DOSES OF INTRAVAGINAL CLINDAMYCIN FOR SYMPTOMATIC BACTERIAL VAGINOSIS IN RANDOMISED CONTROLLED TRIAL

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Objectives: To compare the efficacy of single dose oral secnidazole Versus multiple doses of intravaginal clindamycin cream in the treatment of symptomatic bacterial vaginosis (BV).

Method: 180 women were enrolled in a double blinded randomized controlled trial diagnosed with BV by criteria established by Nugent and Amsel. Study cohorts was divided into two groups Group A recived clindamycin with placebo oral tablet, whereas group B received oral secnidazole with placebo vaginal cream. Therapeutic success were defined by correction of Amsel's criteria on day 15.

Results: At day 15 the patient free from discharge on speculum examination in group A were 87 (89%) and in group B were 15 (16.4%), clue cells were negative in 87 (89%) patients in group A whereas in group B 21 (23%) were negative, and in group A amine test was positive 4 (4.3%) patients where as 63 (69.2%) patient were amine positive in group B. The two groups when analyzed by applying chi square test. There is significant difference and group A appeared superior to group B in all the variable with p-value of 0.000.

Conclusions: Vaginal clindamycin is superior to oral single dose of secnidazole in treatment of bacterial vaginosis.

P0568
TRENDS OF CAESAREAN SECTION IN A TERTIARY LEVEL HOSPITAL IN BANGLADESH IN 1 YEAR PERIOD

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Objectives: To analyze different indications and frequency of caesarean section (CS) so as to provide recommendations for reduction of caesarean section rate.

Method: All patients who underwent CS either booked, unbooked or referred were included in the study. The data was collected and analyzed for socio-demographic parameters and indications of CS. Data was analyzed on SPSS 11; percentages and mean were calculated.

Results: During one year study period 2483 CS were performed. The rate of CS was 69.39%. Among them 81.50% were non-booked and referred cases. The commonest indication was repeat CS (n=614 – 24.73%), followed by severe oligohydramnios with foetal distress (n=236 – 9.50%), foetal distress (FD) n=229 – 9.22%), eclampsia (n=141 – 5.68%), antepartum haemorrhage (APH n=121 – 4.87%), breech presentation (n=116 – 4.67%) and cephalo-pelvic disproportion (CPD n=90 – 3.62%).

Conclusions: The rate of caesarean section was high. The majority of the cases were non-booked and referred patients, who mostly underwent emergency CS. The commonest indication was repeat CS.

P0569
SPECIES COMPOSITION OF LACTOBACILLI AT VAGINITIS AND BACTERIAL VAGINOSIS AND ITS INFLUENCE ON THE LOCAL IMMUNITY

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Objectives: Composition of vaginal flora includes over 400 species of microorganisms. Normally, bacteria of the genus Lactobacillus are dominating. They protect the mucosa from excessive reproduction of conditionally pathogenic microorganisms. About 120 species of lactobacillus are described, belonging to the microorganisms, of which only 20 species colonize the vaginal mucosa. The purpose of this study was to optimize early diagnostics, therapy and prevention of complications associated with vaginal infections through investigation of the species and the quantity of lactobacillus in women with vaginitis and bacterial vaginosis and assessment of its impact on the state of the local immunity of the vagina.

Method: 327 women of reproductive age were examined with PCR: 161 patients with vaginitis, 46 – with bacterial vaginosis with no vaginitis and 120 – healthy women. The biocenosis was studied in vaginal smears: the number of Lactobacillus spp. and 20 major groups of microorganisms of conditionally pathogenic flora; the presence of pathogenic germs; the number of 11 species of lactobacilli.
The mRNA profile of immune genes was measured (IL1B, IL8, IL10, IL12A, TNF, TGFβ1, CAT3, TLR2, TLR4, CD45, CD68, CD69) relative to the reference genes TBP, B2M, GUSB (the ΔΔCq method).

Results: 4 species of lactobacilli dominate in normal flora: L. crispatus, L. iners, L. jensenii, L. gasseri. In the control group L. crispatus was 50% vs a group of women with vaginitis (17%) and bacterial vaginosis (17%). Vaginitis demonstrates increase of L. iners (48% vs 27% in control group), bacterial vaginosis – increase of L. gasseri (30% vs 8% in control group). In the control group dominance of L. iners resulted in increase of IL8, TLR4, IL10, CD69, CD45 1.7, 2.0, 3.8, 2.5 and 1.7 times respectively and decrease of IL18 1.7 times, compared with control group, where L. crispatus dominates.

Conclusions: Presence of L. crispatus can be considered a favorable prognostic indicator in assessing vaginal microbiocenosis. Increased number of L. iners and L. gasseri in composition of lactoflora is associated with vaginitis of different etiologies and bacterial vaginosis. Despite the fact that the L. iners normally present in composition of vaginal microbiota, its protective value remains controversial, and some authors suggest that L. iners plays a role in the pathogenesis of bacterial vaginosis [2]. Timely complex examination (typing of lactobacilli) and assessment of local immunity (cytokines levels) may contribute to target therapy and prevention of complications of vaginal infections.

P0570
METAGENOMICS ANALYSIS USING NEXT GENERATION SEQUENCING OF VAGINAL SAMPLES FROM COMMUNITY PRACTICES IN THE U.S.

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Objectives: Bacterial vaginosis (BV) is not a single disorder or caused by one etiological agent, but rather it is a spectrum of symptoms caused by an imbalance in the normal vaginal bacterial flora. NGS techniques allow for the capture of the entire vaginal microbiome in a single assay and create the ability to obtain a better understanding of the causes of BV that may lead to a viable clinical method for detecting it. In this study, we used next generation sequencing of 16S rRNA genes to obtain the vaginal microbiome from 270 vaginal swabs. LH-PCR can detect alterations in bacterial composition before and after antibiotic treatment. It showed the similar distribution and composition with that in high-throughput sequencing. Imperfectly, the diversity of species and taxa abundance decreased.

Conclusions: Our results suggest that LH-PCR provides an efficient and practical method to characterize vaginal bacterial communities and could be used to predict potential risks of recurrences of bacterial vaginosis. Although the application of this method needs improvement, this study represents the first step towards development of a diagnostic tool for analyzing vaginal bacterial communities. We may use LH-PCR to build a predicting model to diagnose BV combined with Nugent and Amsel criteria. It can provide more detailed and accurate information of the vaginal flora to modulate the treatment regime and improve the cure rate of BV.

P0571
USE OF LENGTH HETEROGENEITY PCR (LH-PCR) AS A METHOD TO PREDICT THE TREATMENT OUTCOME OF BACTERIAL VAGINOSIS

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Objectives: To examine the composition and diversity of bacterial communities within vaginal from BV patients by LH-PCR and high-throughput sequencing. We tend to develop a fast, straightforward, reproducible, and economical method for profiling complex bacterial communities and to evaluate the potential applicability of an LH-PCR approach as simple and rapid methods for analysis of the vaginal bacterial communities for clinical diagnostic purposes.

Method: We recruited 192 women (aged 18–53) with regular menstrual cycles to examine vaginitis at Peking University First Hospital. Two vaginal samples (one for gram staining, one for bacterial genomic DNA extraction) were collected at the initial visit, 6–8 days and 1 month after a 5-day treatment with intravaginal metronidazole gel. Bacterial vaginosis was diagnosed according to Nugent and modified Amsel criteria. A total of 204 specimens were examined from 68 patients. PCR products were analyzed by 454 pyrosequencing and LH-PCR. The similarities of vaginal bacterial communities between LH-PCR and 454 pyrosequencing were determined by statistical and bioinformatical analysis.

Results: All of these 68 women turned to normal after treatment, while 19 relapsed and 49 had been cured at 1 month. 204 samples were collected and successfully analyzed. According to high-throughput sequencing, the vaginal bacterial communities can be divided into 3 clusters at 6–8 days with different treatment outcomes. The three clusters were dominated by Lactobacillus, Enterococcus and BV related bacterial including Prevotella, Atopobium, and Gardnerella respectively.

LH-PCR can detect alterations in bacterial composition before and after antibiotic treatment. It showed the similar distribution and composition with that in high-throughput sequencing. Imperfectly, the diversity of species and taxa abundance decreased.

Conclusions: Our results suggest that LH-PCR provides an efficient and practical method to characterize vaginal bacterial communities and could be used to predict potential risks of recurrences of bacterial vaginosis. Although the application of this method needs improvement, this study represents the first step towards development of a diagnostic tool for analyzing vaginal bacterial communities. We may use LH-PCR to build a predicting model to diagnose BV combined with Nugent and Amsel criteria. It can provide more detailed and accurate information of the vaginal flora to modulate the treatment regime and improve the cure rate of BV.
P0573
EFFECT OF HYDROALCOHOLIC EXTRACT POMEGRANATE ROOT ON TRICHOMONAS VAGINALIS (IN VITRO)

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Objectives: Trichomoniasis is one of the most common sexually transmitted disease in around the world which is caused by Trichomonas vaginalis. According to the increasing prevalence, known side effects of metronidazole and increasing reports of resistance to this medicine, herbal therapy has been noticed in recent decades for reducing of side effects.

Method: In this experimental study the numbers of parasites were 500,000 per ml, by Neobar at the starting of the test. Positive control was metronidazole (concentration = 5 mg/ml at the starting of the test) and negative control was medium containing parasites. At first, hydroalcoholic extract of pomegranate root was prepared. Trichomonas vaginalis removed from women and were maintained by passage in TYM culture and were confirmed by direct observation then added to 24-well plates and degree of influence of the concentration of 50, 100, 200, 400, 800, 1600 μg/ml was studied completely unconscious during 24, 48, 72 hours in aspects of numbers, viability and mobility (with Trypan blue color).

Results: Check the negative control slide was counted by Neobar lam. The numbers of parasites were 500,000 which was the same after 72 hours. According to the table, cytotoxicity effect of parasite was observed in all of the concentration of pomegranate root and the best result were obtained in 800 μg/ml which reduced the numbers of parasites to 40,000, and 1600 μg/ml which destroyed all the live parasite after 72 hours.

Conclusions: Hydroalcoholic extract of pomegranate root is a positive effect on Trichomonas vaginalis (in vitro).

P0574
RISK FACTORS FOR CONGENITAL SYPHILIS IN THE STATE OF SANTA CATARINA, BRAZIL

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Objectives: To assess risk factors for congenital syphilis in the State of Santa Catarina, Brazil.

Method: Case-control study with 1,810 notifications of pregnant women with syphilis recorded in the Brazilian National Disease Notification System (SINAN) between 2007 and 2013. Cases consisted of notifications of syphilis in pregnant women with vertical transmission, i.e., congenital syphilis. Controls consisted of notifications of syphilis in pregnant women without vertical transmission. Data were analyzed in SPSS 22.0 using Pearson’s chi-square or Fisher’s exact tests. The measure of association was odds ratio (OR) with respective 95% confidence intervals (CI), and the significance level was set at p < 0.05. This study was approved by the UNISUL Research Ethics Committee (No. 928,862).

Results: In the bivariate analysis, main risk factors for congenital syphilis that maintained statistical significance in the multivariate analysis were gestational age at diagnosis, with higher chance of presenting the outcome at the second trimester (OR 1.94; p = 0.001), third trimester (OR 7.87; p < 0.001), and unknown gestational age (OR 4.85; p < 0.001), and noncompliance with treatment scheme by pregnant women (OR 3.14; p < 0.001). Of the fourteen variables analyzed, eight were excluded for presenting losses > 20% (education, occupation, municipality where the prenatal diagnosis of syphilis was performed, titration, clinical classification, and information regarding the partner).

Conclusions: The risk factors for congenital syphilis in the State of Santa Catarina are linked to the nonperformance of simple diagnostic and therapeutic procedures. This reflects socio-cultural issues and probable gaps in prenatal care, which could not be evaluated in this study, because compulsory notifications were not properly filled. Adequate completion of compulsory notification forms is needed to allow for a more accurate assessment of the situation.

P0575
DIFFICULTIES IN MANAGING LARGE CONDYLOMATA ACMINATA OF THE VULVA PRESENTING IN PREGNANCY. RECENT CASE SERIES

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Objectives: Describe 4 HIV positive patients admitted to the obstetric infectious disease unit from January 2015.

Method: Retrospective record review, including clinical photographs and histology.

Results: Four cases are described. 2 cases underwent surgery and both delivered 24 hours later. Two patients underwent examination under anaesthesia and biopsy. Carcinoma of the vulva and tuberculosis was diagnosed in one of these patients.

Conclusions: Condylomata acuminata can cause maternal complications including infection, pain and bleeding. In addition other possible concomitant pathologies should be considered. Management is difficult. Operative management may be successful, is not always possible and may be associated with haemorrhage and labour.

P0576
INFLUENCE OF RECURRENT VULVOVAGINAL CANDIDIASIS ON LIFE QUALITY: PRELIMINARY STUDY

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Objectives: Vulvovaginal candidiasis affects 75% of reproductive age women; among them 40–50% will have a second episode and 5–8% will have recurrent disease. The consequences can be: chronic stress, deterioration of sexual and interpersonal relationships, increased demand for medical care and medications with worse life quality. We evaluate quality life aspects of women with recurrent vulvovaginal candidiasis (study group), compared to women with the same epidemiological characteristics with no previous history of RVVC or that had only one episode of Candida vaginitis (control group) using a modified World Health Organization (WHO) Quality Life evaluation instrument Modified – WHOQOL.

Method: The study group is composed of 18–50 year old women with RVVC seen at Hospital das Clinicas (Immunology and Genital Infections, Disciplina de Ginecologia da USP). As a control group, we evaluated women of similar age, without a history of vulvovaginal candidiasis or who had just one episode of candida vaginitis. Pregnant women, HIV positive women, women with immnodeficiency and/or dermatologic diseases, with a Trichomonas vaginalis infection or bacterial vaginosis were excluded. After signing informed consent the women were invited to answer a questionnaire related to life quality aspects (modified WHOQOL 100). Statistical analysis was performed by Fisher exact test.
Results: Currently we have 40 women in the study group and 43 controls. No statistical differences in age of first intercourse, total number of partners, sexual practices. Pruritus, feelings of shyness, sadness and/or depression, loneliness interfering with daily life were higher in the study group ($p < 0.001$). No differences in physical pain frequency and concerns about physical pain. The grade of symptoms interfering with sexual life was higher in the study group ($p < 0.0001$). Sexual satisfaction and a satisfactory sexual life were decreased in the study group ($p < 0.0001$).

Conclusions: Recurrent vulvovaginal candidiasis interferes in a important negative way in the quality of life.

Labor and Delivery

P0577
SUPPORTIVE CARE DURING CHILDBIRTH IN DIFFERENT HEALTHCARE PARADIGMS
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Objectives: In recent century, maternal support has been changed. The different approaches influenced labor and normal delivery. The aim of this article describes the maternity supportive care paradigms of the past century and closely analyzes each of them.

Method: We select published articles from databases such as Google Scholar, Scopus, Sage, Science Direct, PubMed and Springer were used due to the high citation number of their journals. The keywords entered were the following: “Labor support”, “Qualitative study”, “Normal delivery”, “Birth attendance”, “Supportive approaches” and “Exploration study”. They were entered alone or in combinations using “AND”. Also, Persian articles were searched in local databases, e.g. Iran doc, SID, Iran Medex, and Magiran using the above mentioned keywords in Persian. Sixty articles had inclusion criteria.

Results: Labor supporting has changed in technocratic, humanistic and holistic approaches caused some models which had followed by midwives.

Conclusions: Labor support based on the holistic approach and the naturalistic paradigm could bring about remarkable results, the most important being satisfaction with the birth experience, mother’s self-confidence, increase in the mother’s ability in child delivery and better completion of the childbirth process.

P0578
VAGINAL BIRTH AFTER CESAREAN SECTION (VBAC) PREDICTING SUCCESS
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Objectives: Assessment of successful rate of VBAC, causes of failure and complications.

Method: History, general, abdominal, vaginal exam and U.S were carried out. All patients were observed and progress of labour was assessed every 2 hours. Continuous fetal monitoring by cardiography was used to assess the fetal condition. The data were collected and analysed using Student’s t-test.

Results: The success rate of VBAC was (66%) which was statistically significant. The success rate was significantly high in patients with high parity and those with history of previous normal delivery. Early rupture of membranes R.O.M decreased VBAC to 42.6% while late R.O.M increased VBAC to 75.8%, which was significant. The maternal complications were significantly lower in successful VBAC 3.8% compared to failed VBAC 13.2%. The neonatal complications were also significantly lower in successful VBAC 2.3% compared to failed VBAC 9%.

Conclusions: VBAC after one previous C.S. should be encouraged because success rate of VBAC is significantly higher than the failure rate. History of previous normal delivery was associated with higher success rate and early R.O.M predicted more failure. Close maternal and fetal monitoring in well equipped hospital with facilities of C.S. in emergency cases.

P0579
SAFETY OF VAGINAL BIRTH AFTER CAESAREAN SECTION
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Objectives: The objective of this study was to determine the frequency and fetomaternal outcome of vaginal birth in cases of previous one caesarean section.

Method: All booked and unbooked singleton pregnancies with history of previous one caesarean section were included in the study. Women with systemic disorders, bad obstetrical history were excluded from the study. The women were selected for the study through non-probability purposive sampling technique. Data regarding course of labour, complications and failure of trial were read. Frequencies and percentages were calculated for qualitative data. Results were presented by frequency distribution tables, the results were analyzed through SPSS version 16.

Results: Total number of pregnancies who fulfills the selection criteria were 50. Most of women were gravida 2–5 (74%) Gestational age was 38–40 weeks in 60–70 cases. Among 50 women 70% had successful VBAC trial while 30% underwent emergency caesarean section.

Conclusions: The frequency of vaginal birth after caesarean section was 70% in this study, however fetomaternal outcome showed lower rate of complications in both types of subjects.

P0580
BRINGING HEALTH SERVICES CLOSER TO HOME: COMMUNITY SKILLED BIRTH ATTENDANTS IN THE MAOMONI PROJECT, BANGLADESH
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Objectives: The study aimed to understand the performance of private of private community skilled birth attendants supported by the MaMoni project in northeastern Habigonj district of Bangladesh.

Background: Reaching mothers with critical health services where home delivery is norm is a challenge. MaMoni project funded by USAID trained 48 local women in a six month private Community Skilled Birth Attendant (CSBA) course accredited by Bangladesh Nursing Council to increase coverage in hard to reach areas. This complemented the coverage of the government supported skilled birth attendants in the community.

Method: This study comprised a secondary analysis of routine program data from three subdistricts of Habigonj district between April 2013 and March 2014, and included antenatal care and delivery coverage. Bivariate analysis was used to compare performance with similarly trained government CSBAs.

Results: Fifty one to sixty five percent of pregnant women were identified by pCSBA in their working clusters. In all the clusters 14%-17% women had the first ANC contact with private CSBAs. About 20% of total deliveries were conducted by the private CSBAs. In the same areas; whereas 9%-16% deliveries were conducted by the Government CSBAs.

Conclusions: Private Community Skilled Birth Attendants increased...
coverage of skilled care at the community level, particularly in areas where health facilities were inadequate.

To maximize the utilization at the community level, community resources for offsetting operation costs, ensuring skill retention with supportive supervision on site, proper allocation of work areas and an incentive and recognition mechanism from the community need special attention.

**P0581**

**A COMPARISON BETWEEN TOCOLYTIC EFFECT OF NIFEDIPINE AND MAGNESIUM SULFATE IN PRETERM LABOR PAIN**

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**Objectives:** Preterm labor is the most common cause of neonatal mortality. Magnesium Sulfate is widely used for treatment of preterm labor. Since Nifedipine is a low priced medication and is orally administered, it has increased in popularity. The aim of this study is to compare the tocolytic effect of nifedipine and Magnesium Sulfate in preterm labor.

**Method:** In a single blind randomized control trial, 70 singleton women in 25 to 34 weeks of gestation with preterm labor were randomly assigned to two groups either to receive intravenous Magnesium Sulfate or Nifedipine. In each group demographics, arrest of labor after 48 hours, 1 week, and till 34 and 37 week of gestation and also gestational age (days), duration of neonatal ICU admission, neonatal weight and 5 minute apgar was recorded. Data was analyzed using SPSS13.0 and Chi-Square and T test. P value less than 0.05 was assumed to be significant.

**Results:** There was no significant difference in age, gravid, mean initial gestational age and educational level between the two groups. Also, there was no statistically significant difference in labor arrest after 48 hours, 1 week and till 34 and 37 week of gestation, final gestational age (days), duration of neonatal ICU admission (days), neonatal weight and 5 minute apgar. Moreover, there was no difference in drug side effects between two groups.

**Conclusions:** While similar to Magnesium in terms of tocolytic effect and side effects, Nifedipine is more affordable and orally administered, which makes it more preferable. However, it should be noted that, more studies with larger sample size and longer follow up of neonatal and maternal side effects of Nifedipine are recommended.

**P0582**

**EFFECT OF MAINTENANCE THERAPY WITH ISOXSUPRINE IN PREVENTION OF PRETERM LABOR**

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**Objectives:** Preterm Birth is defined as birth before completion 37 weeks of gestation and is responsible for many of neonatal deaths. Variety of pharmacological agents such as β-adrenergic agonists has been used in prevention of preterm birth, but their efficacy is not improved. According to the importance of maternal and neonatal complications of preterm birth and lack of sufficient studies, we arranged a study to assess the effect of isoxsuprine in prevention of preterm labor.

**Method:** We arranged a single-blind prospective Randomized trial on 70 (pregnant singleton with intact fetal membrane) women between 26 to 34 weeks of gestation with labor pain. After stopping the contractions with IV magnesium sulfate we divided them into 2 groups and gave oral isoxsuprine until 34 weeks of gestation to case group. Then assessed their response to treatment and their pregnancy progression until birth in both case and control groups. Our data was analyzed with spss software under T and chi-square tests. p<0.05 means significant difference.

**Results:** We did not find any significant difference in age, weight, gravidity, gestational age, occupation and level of education between two groups (p>0.05). There were no differences in effacement and dilatation changes during 3 steps pelvic exam in 48 hours after stop of contraction, one week after stop of contraction and 34 weeks of gestation between two groups. 40% of case group and 34.29% of control group had preterm birth before 37 weeks and there was no significant difference between two groups (p=0.621). In case group 11.43% and in control group 14.2% had delivery before 37 weeks and there was no significant difference for group (p=0.721).

**Conclusions:** Oral isoxsuprine as maintenance treatment is not effective in prevention of preterm birth or postponing delivery after 34 weeks.

**P0583**

**CHILDBIRTH THROUGH THE PERINEAL BODY: A CASE REPORT**

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**Objectives:** Introduction: Perineal trauma during delivery can affect up to 90% of primigravida, here we present the case of an 18 year old primigravida with peculiar perineal trauma resulting from childbirth through the perineal body.

**Case report:** Mrs AS was an 18 year old primigravida who presented to our labour ward 7 hours after home delivery with complaints of perineal tear. She had labored at home for 36 hours before she started having the urge to bear down. She continued to bear down for 4 hours but the baby was not delivered. Assistance was sought from an unskilled attendant (cleaner at the labour ward of a secondary health facility). She gave her an intra-muscular injection of oxytocin; after 2 hours she eventually delivered an asphyxiated female neonate that died immediately after birth.

**Results:** Examination: Perineal tear involving the perineal body which was in communication with the posterior vaginal wall with an intact posterior fouchette. The perineal muscles and external anal sphincter were severed; rectum was exposed at the lower edge of the tear the rectal mucosa was intact.

**Treatment:** EUA and repair was done. The para-rectal fascia was approximated with 2/0 vicryl, the external anal sphincter was overlapped and repaired with 1/0 vicryl. The perineal muscles were sutured; the vaginal mucosa and perineal skin were closed. She had broad spectrum antibiotics, analgesics, multivitamins and laxatives. She was continent of feces on discharge.

**Conclusions:** This type of perineal trauma though rare has been reported before. The patient likely had a persistent occipito posterior position (POPP) hence the long first and second stages of labour. In POPP the baby's head is pushed more posterior compared to if the head is occipito anterior. The combined effects of the OPP and bulus oxytocin must have likely led to this type of tear.

**P0584**

**PERIPARTUM Hysterectomy and Analysis of Risk Factors**

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**Objectives:** 1. To determine the incidence of peripartum hysterectomy at BPKIHS, a tertiary care referral centre in eastern Nepal. 2. To evaluate the incidence and risk factors associated with peripartum hysterectomy.

**Method:** A prospective analysis was conducted of all cases of peripartum hysterectomy performed in our hospital for 2 yrs (July 2012–June 2014). Peripartum hysterectomy defined as one performed af-
ter 28 weeks gestation for uncontrollable uterine bleeding not responsive to conservative measures occurring within 48 hrs of delivery. All caesarean and postpartum hysterectomy during the study period was included. Various maternal characteristics including demographic data, previous obstetric details, antepartum, intrapartum and postpartum data were collected and analysed.

**Results:** There were 29 cases of peripartum hysterectomy among 19,539 births in 2 yrs giving a rate of 1.48 per 1000 births. Indications for peripartum hysterectomy were uterine rupture (65.5%), morbid adherence of the placenta (13.8%) and uterine atony (12.9%). Previous caesarean section was identified as independent risk factor with relative risk of 1.8 (95% CI: 1.3–2.5, p<0.003).

There was three maternal death. Maternal morbidity was significant, with febrile morbidity and urinary tract injury among the most common complications. All women required blood transfusion, and 96% of women undergoing peripartum hysterectomy were admitted to the maternal intensive care unit.

**Conclusions:** In our study uterine rupture causing severe haemorrhage was the commonest indication for peripartum hysterectomy. Although peripartum hysterectomy is associated with severe maternal and perinatal morbidity and mortality, it remains a potential life saving procedure if timely intervention is done.

**P0585 WHO SAFE CHILDBIRTH CHECKLIST: EXPERIENCE AT TERTIARY CARE HOSPITAL OF PAKISTAN**

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**Objectives:** To determine the effectiveness of 29-point WHO Safe Childbirth Checklist for improving compliance of health workers with best practices at the time of delivery.

**Method:** Pre-post intervention study, carried out at ObGyn Unit 1, Holy Family Hospital, Rawalpindi from August 2013 to March 2014. Group A consisted of 250 patients who delivered in the unit in August 2013 with standard care that is provided to all patients. The attending doctor was requested to mark the checklist points that were carried out. Then the checklist was introduced. Group B consisted of 250 patients who delivered in March i.e. six months after the checklist has been in use. The data was analyzed by SPSS version 17. A p-value of <0.05 was considered as significant.

**Results:** The checklist was correctly filled in 238 patients in group A and 231 in group B. The groups were similar for age, parity, antenatal care received, birth weight and outcome of the newborn. Significant difference occurred in the delivery of 13 best practices: assessment of maternal anticonvulsant requirement (p-value 0.003), maternal hepatitis status, hand-washing, allowing birth companion, confirming delivery supplies, identification of delivery assistant, assessment for post-partum haemorrhage, neonatal condition, breastfeeding, thromboprophylaxis, assessment of maternal and neonatal condition, counselling regarding seeking help, maternal hepatitis B vaccination, contraception, and danger signs prior to discharge (all p-value 0.00).

**Conclusions:** Statistically significant improvement was observed in a number of parameters. Being a tertiary care hospital, most others were already being practiced. However, in secondary and primary care settings checklist may improve the delivery of all practices.

**P0586 PREDICTORS OF VAGINAL DELIVERY AMONG PREGNANT NIGERIAN WOMEN WHEN LABOUR IS INDUCED AT TERM WITH MISOPROSTOL**

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**Objectives:** To identify factors that predict vaginal delivery when labour is induced at term with 50ug intravaginal misoprostol at University of Benin Teaching Hospital, Nigeria.

**Method:** A prospective cohort study among 356 pregnant women utilising multivariate logistic regression with adjusted odds ratio to identify predictors of vaginal delivery.

**Results:** A previous vaginal delivery (OR 0.77, p=0.10) and the use of oxytocin infusion to augment uterine contractions during labour (OR 1.87, p=0.015) were independent predictors of vaginal delivery.

**Conclusions:** A previous vaginal delivery and using oxytocin infusion to augment uterine contractions increase the chances of vaginal delivery when labour is induced with 50ug intravaginal misoprostol. This information is important when counselling patients for labour induction.

**P0587 DEMOGRAPHIC PROFILE OF PATIENTS WITH UTERINE RUPTURE AT THE UNIVERSITY OF CALABAR TEACHING HOSPITAL (UCH), CALABAR: A TEN YEAR REVIEW**

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**Objectives:** Ruptured uterus is one of the major obstetric emergencies in sub Saharan Africa. It is a major cause of maternal and perinatal morbidity and mortality. Periodic review is therefore necessary to determine the magnitude and to find ways to reduce this obstetric disaster. The objective of this study is to determine the incidence of ruptured uterus, and the profile of patients presenting with ruptured uterus in UCH, Calabar.

**Method:** This is a ten year retrospective case control study of patients with uterine rupture at the University of Calabar Teaching Hospital (UCH), Calabar. The pregnancy outcome of patients with uterine rupture (study group) who delivered in UCH, Calabar from 1st January, 2001 to 31st December, 2010 were studied and the findings were compared with patients without uterine rupture (control group) who delivered in the same hospital immediately after each of the patients with uterine rupture.

**Results:** A total of 132 patients out of 16, 650 had uterine rupture during the study period; however, only 85 case files were available for analysis. The incidence of ruptured uterus was 7.9/1000 deliveries. Uterine rupture occurred in 71 (83.5%) patients who did not book for antenatal care (ANC) compared to 9 (10.6%) in the control group ($\chi^2=86.60; P<0.05$). The commonest predisposing factor was the presence of uterine scar 37 (43.5%). The maternal and perinatal mortality rate was significantly higher in patients with uterine rupture ($\chi^2=16.45; P<0.05$ and $\chi^2=124.05; P$-Value $<0.05$ respectively).

**Conclusions:** The commonest predisposing factor for uterine rupture at UCH, Calabar is the presence of a previous uterine scar. There is a need to reduce the high maternal and perinatal mortality associated with this condition.
P0588
DECISION TO DELIVERY INTERVAL (DDI) FOR FETAL DISTRESS IN A LOW RESOURCE SETTING. A CROSS SECTIONAL STUDY AT UNIVERSITY TEACHING HOSPITA IN LUSAKA
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Objectives: To show decision to delivery intervals at the University Teaching Hospital in Lusaka.

To describe the outcomes associated with these decision to delivery times.

Method: This was a cross sectional study which recruited patients with fetal distress that underwent caesarean section between September 2013 and January 2014. Fetal distress was diagnosed by presence of meconium and abnormal fetal heart. Decision to deliver and time of delivery and outcomes were collected from patient files. Preterm, malpresentations fetatal anomalies and twin pregnancies were excluded from the study. Ethical approval was from the university of Zambia ethics committee.

Results: There were 1,993 caesarean section in this period. 216 patients had fetal distress that fulfilled eligibility criteria. Average age of mothers was 25 years, average gestation age was 39.1. There were 16 fresh still births (FSB) 200 live births. The average DDI was 202 minutes. Minimum DDI was 33 minutes, maximum was 955. Mean delivery time for FSB was 285,214 for admission to neonatal intensive care units 193 for well babies (t=2.18, p=0.03).

Conclusions: DDIs at the university teaching hospital are far from the prescribed 30 minutes. These delays are associated with poor fetal outcomes, including admission to neonatal intensive care units and FSBs.

P0589
BABIES BORN BEFORE ARRIVAL: RISK FACTORS ASSOCIATED WITH PARTURIENTS DELIVERING THEIR BABIES OUTSIDE THE HEALTH CARE FACILITIES IN ORT DISTRICT, SOUTH AFRICA
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Objectives: To explore the barriers to accessing health facilities during childbirth.

Method: A qualitative research design was used. Individual and focus groups interviews of birth before arrival mothers and of nurses were undertaken at a community health centre and a district hospital in ORT District.

Results: Risk factors for birth before arrival included a lack of transport, a lack of security at night, which deterred mothers from travelling, precipitate labour, a failure to identify true labour, and a lack of waiting areas at health facilities. Traditional and cultural beliefs favouring childbirth at home and negative nurses' attitudes during antenatal care and labour influenced mothers to go to health facilities when in advanced labour. Mothers were aware of possible complications associated with birth before arrival.

Conclusions: Socio-economic, individual, cultural and health system factors influence the occurrence of birth before arrival. Relevant stakeholders need to address these factors in order to ensure that all babies in the ORT District are delivered within designated health facilities.

P0590
CEREBRAL PALSY AND PERINATAL ASPHYXIA: MEDICOLEGAL IMPLICATIONS AND PREVENTION
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Objectives: Obstetric litigation is a growing problem in developed countries and its escalating cost together with increasing medical insurance premiums is a major concern for maternity service providers, leading to obstetric practice cessation by many practitioners.

Method: Fifty-four to 74% of claims are based on cardiocographc (CTG) abnormalities and their interpretation followed by inappropriate or delayed reactions. A critical analysis is performed about the nine criteria identified by the American College of Obstetricians and Gynecologists and the American Academy of Pediatrics in their task force on Neonatal Encephalopathy and Cerebral Palsy: four essential criteria defining neonatal asphyxia and five other suggesting an acute intrapartum event sufficient to cause cerebral palsy in term newborns.

Results: Magnetic resonance imaging (MRI) of the infant's damaged brain is very contributive to elucidate the mechanism and timing of asphyxia in conjunction with the clinical picture, by locating cerebral injuries predominantly in white or grey matter. Intrapartum asphyxia is sometimes preventable by delivering weak fetuses by cesarean sections before birth, by avoiding some “sentinel” events, and essentially by responding appropriately to CTG anomalies and performing an efficient neonatal resuscitation. During litigation procedures, it is necessary to have access to a readable CTG, a well-documented partogram, a complete analysis of umbilical cord gases, a placental pathology and an extensive clinical work-up.

Conclusions: Considering the fast occurrence of fetal cerebral hypoxic injuries, and thus despite an adequate management, many intrapartum asphyxias will not be preventable. Conversely, well-documented hypoxic-ischemic brain insults during the antenatal period do not automatically exclude intrapartum suboptimal obstetric care.

P0591
FACTORS ASSOCIATED WITH FAILED INDUCTION OF LABOR AT THE UNIVERSITY TEACHING HOSPITAL, LUSAKA
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Objectives: To identify factors associated with failed induction of labor at UTH, Lusaka.

Method: A cross sectional study conducted at the university teaching hospital, Lusaka. Data was collected on all women undergoing IOL at UTH who met eligibility criteria of a live singleton pregnancy gestation age of 28 weeks or more and cephalic presentation from 3rd June to 13th September 2013 who provided informed consent. Various demographic and clinical information constituted independent variables and the dependent was mode of delivery. Data was entered in excel and analysed in SPSS. Multiple logistic regression analysis was used to determine factors independently associated with a failed IOL.

Results: A total of 5892 deliveries were conducted during the period 3rd June to 13th September of which 156 were for IOL, giving an induction rate of 2.65%. Of the 156, 127 met eligibility criteria and were analysed. The main indications for induction were hypertensive disorders (69.3%), PROM (15%) and post dates (12.6%). The failed induction rate (i.e. failure to achieve vaginal delivery after induction) was 13.4%. Not having misoprostol as part of induction regimen was found to be independently associated with a failed IOL, though nulliparity and low Bishop score were not.

Conclusions: Induction of labor does not always result in a vaginal delivery and if unsuccessful requires a Caesarean section. Not having misoprostol as part of induction regimen was independently associated with a failed induction of labour.
P0592
OBSTETRICAL RESULTS IN NULLIPAROUS WOMEN WITH A SINGLE CEPHALIC PREGNANCY AT >37 WEEKS GESTATION FROM 44 SWEDISH HOSPITALS
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Objectives: To study the variation in obstetrical outcome in all Swedish delivery ward in 2014. The most important group if you want to minimize the Caesarean section (CS) rate is nulliparous women with a single cephalic pregnancy at >37 weeks gestation. We wanted to study the variation in section rate among these women.

Method: National results were collected from all Swedish delivery wards (except Växjö and Karlstad due to problems to get data from the database). Data was imported from the database that is automatically created at each delivery.

Results: The variation in CS rate in nulliparous women with a single cephalic pregnancy at term was from 7% (Linköping) to 23% (Danderyd, Stockholm). The difference in CS rate in this group was significant OR=3.0 (95% CI: 2.4, 3.8).

The induction rate in nulliparous women with a single cephalic pregnancy at term varied between 9% (Karlsga), 12% (Norrköping) and 28% (Karolinska University Hospital Solna, Stockholm). The CS rate was raised in inductions compared to spontaneous start of labour. Calculating on all the 44 hospitals there was a raised risk for a CS after induction of labour, OR=3.3 (95% CI: 3.1, 3.5).

Conclusions: Huge variation in Swedish hospitals in CS rate in nulliparous women with a single cephalic pregnancy at >37 weeks gestation. To continuous monitor the results in the obstetrical wards and that the hospitals with improvement opportunities are interested in focusing on continuous quality improvement is vital for keeping a high standard in obstetrics.

Reducing unwarranted practice variation is important where it influences health outcomes, health care costs, and provision of appropriate and patient focused care.

P0593
A RARE CASE OF BILATERAL ECTOPICT PREGNANCY AND DIFFERENTIAL DIAGNOSIS OF GESTATIONAL TROPHOBLASTIC DISEASE
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Objectives: Bilateral ectopic pregnancy is a rare condition and is divided in two subgroups, primary and secondary, based on history of assisted reproductive technology.

Method: A 30 year old primigravid woman with history of infertility and ovulation induction presented to a hospital in Sainte Justine Hospital a Montreal in year 2015. She had vaginal bleeding, abdominal pain and ultrasound findings suggested early pregnancy. Due to high titer of β-HCG, gestational trophoblastic disease was proposed and DBC was done in referral and admission to gynec-oncology ward in Tehran.

Results: Repeat sonography suggested ectopic pregnancy in left side and repeat β-HCG level showed an increase of 19435 mIU/ml. Laparotomy findings revealed bilateral ampullary ectopic pregnancy. Bilateral salpingostomy followed by one course of methotrexate was prescribed.

Conclusions: Bilateral ectopic gestation should be considered as a rare differential diagnosis for ectopic pregnancy. In this study, bigger size and rupture in left side was observed.

P0594
OXYTOCIN AUGMENTATION OF SPONTANEOUS LABOUR: IT IS A BENEFICIAL AND A SAFE INTERVENTION?
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Objectives: Oxytocin is the most commonly used medication in obstetrics. Although it has proven advantages in induction of labour, the benefits in augmentation of spontaneous labour has been less convincing.

Current evidence suggest that it shortens the duration of labour; but this has not resulted in an increase in successful vaginal deliveries as generally perceived. It remains a common obstetric intervention which may have significant maternal and fetal implications. The objective of this study is to evaluate the maternal and fetal outcomes following oxytocin augmentation of patients in spontaneous labour.

Method: This is a retrospective cohort study. The study period was from 1st January 2010 till 31st December 2012 and 108,977 patients in spontaneous labour were studied. Specific variables were extracted from the National Obstetric Registry of Malaysia (NOR), from all the fourteen participating tertiary hospitals in Malaysia, which totalled to 399,274 patients.

The analyses were performed with Stata Statistical Software: Release 11. Simple logistic regression analysis were used to calculate the crude odds ratio for caesarean section, fetal compromise, instrumental deliveries, primary postpartum haemorrhage, poor Apgar score, birth asphyxia, meconium aspiration syndrome, shoulder dystocia and perineal tears.

Results: Oxytocin augmentation of spontaneous labour did not result in an increase in successful vaginal deliveries. Conversely, the risk of caesarean section was increased, with a crude OR (95% CI) of 1.89 (1.80–1.99) p<0.001, which is likely to be performed for fetal heart rate abnormalities, crude OR 2.19 (2.06–2.32) p<0.001. However, this was not associated with poor Apgar Scores or birth asphyxia.

Oxytocin use was also associated with an increase in maternal complications, such as instrumental deliveries, crude OR 3.02 (2.77–3.29) p<0.001, post-partum haemorrhage, crude OR 2.00 (1.53–2.63) p<0.001 and shoulder dystocia, crude OR 2.95 (2.04–4.28) p<0.001. However, this has not resulted in an increase in successful vaginal deliveries. It is associated with an increase in caesarean sections, instrumental deliveries, shoulder dystocia and post-partum haemorrhage.

Interventions with liberal use of oxytocin augmentation should be reviewed and used cautiously, especially if the labour progress is abnormal as the essence of modern obstetric management is to achieve a safe delivery.

P0595
FOLEY’S NO 16 CATHETER INTRAUTERINE PLACEMENT FOR CONTROLLING POST PARTUM HAEMORRHAGE (PPH) FOLLOWING ELECTIVE CEAESAREAN SECTION
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Objectives: To introduce a simple and cost effective method to control PPH following elective caesarean section in primary care set up with readily available Foley’s catheter which can be introduced intrauterine at patient’s bed side without need of anaesthesia even by nurses.

Method: 105 patients treated at Saneevani Hospital, Kolkata India, between June 2012 and June 2014 with PPH following elective cae-
sarean section not controlled by oxytocics. No 16 Foley’s catheter was introduced under finger guide inside os till at least 10 cm of the Foley’s is intrauterine then the Foley’s balloon was inflated with 40 mL saline and then pulled down and connected to urobag. Oxytocin drip was continued and blood drained out through the Foley’s and the uterus contracted. In 2 patients of placenta praevia a second Foley’s needed to be introduced to control bleeding.

Results: All 105 patients PPH was controlled by this method. Foley’s where removed after 48 hours and in all cases oxytocin drip was continued for 24 hours. In few cases the Foley’s balloon was spontaneously expelled. No patient needed blood transfusion and any other operative procedures to control PPH.

Conclusions: This simple technique of controlling PPH after caesarean section with readily available Foley’s catheter placed intrauterine is easy and can be done by even nurses at bed side without anaesthesia is very much cost effective with 100% success. If needed a second Foley’s may be placed intrauterine if bleeding continued after placing the first one.

P0596
IMPLEMENTING ELECTRONIC FETAL MONITORING IN A LOW-RESOURCE SETTING
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Objectives: Electronic fetal monitoring (EFM) has become standard of care in developed settings. The World Health Organization does not recommend use of continuous EFM in low-resource settings due to lack evidence supporting improved neonatal outcomes and increased cesarean section rates. Despite this recommendation, EFM is utilized at various institutions. The obstetrics department at Hospital Universitario de Mirebalais (HUM) in Haiti received a donation of fetal monitors and requested Physicians for Haiti (P4H), an NGO focused on continuing education, provide training in EFM. P4H aimed to accompany the HUM team in integrating EFM into the clinical setting through evidence-based training and implementation.

Method: We conducted an English-language literature review of EFM in low-resource settings and reviewed national and international guidelines. A curriculum in EFM covering definitions/terminology, uses and limitations, established guidelines, and practicum for physicians, midwives, and nurses was developed and implemented at HUM, a large tertiary care center in Haiti. Training is necessary to enable providers to implement and interpret EFM appropriately. A curriculum in EFM covering definitions/terminology, uses and limitations, established guidelines, and practicum for physicians, midwives, and nurses was developed and implemented at HUM, a large tertiary care center in Haiti. Training is necessary to enable providers to implement and interpret EFM appropriately.

Results: The literature review revealed no existing protocols or outcomes data for EFM in low-resource settings. 45 clinicians attended the 4-hour EFM training. Course content included fundamental training in EFM, review of National Institutes of Child Health and Human Development guidelines, and EFM tracing review. Post-test scores improved by 20.4% over pre-test scores. Course evaluations revealed that all participants felt the training was of high importance and would improve patient care. Several identified the need for more practice reading EFM tracings as well as follow-up sessions to reinforce the material. An EFM protocol for use in high-risk patients was created.

Conclusions: Despite the lack of evidence supporting the use of EFM in low-resource countries, institutions are and will be using EFM. Training is necessary to enable providers to implement and interpret EFM appropriately. Data is needed on the utility of EFM in this setting, and the development of consensus guidelines is necessary. At HUM, institutional quality assurance evaluation is needed to ensure compliance with the new protocol and further research is needed to determine effectiveness. Given the spread of EFM to low-resource settings, the international medical community must come together to address EFM in the global context.

P0597
MODE OF DELIVERY IN TWIN PREGNANCIES: A CHILEAN EXPERIENCE
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Objectives: The objective is to analyse our local data of twin delivery.

Method: Retrospective analysis of all twin deliveries in Hospital Padre Hurtado (Santiago-Chile), from 2005 to 2012. Twin pregnancy rate, gestational age at delivery and mode of delivery was studied.

Results: There were 42.879 livebirths in the study period, from which 755 were born from 377 twin pregnancies and one triplet. This corresponds to 0.8% of pregnancies. There are no fertility treatments in this population, only spontaneous multiple pregnancies. Fetal mortality from 24 weeks onwards was 5/1000 in singletons and 33/1000 in twins, raising up to 51/1000 in monochorionic twins. Mean gestational age at delivery was 35 weeks, (21–39), with 34% over 37 weeks. 69% were delivered by c section, 4% by combined vaginal delivery for the first twin and c-section for the second. Only 27% delivered vaginally.

Conclusions: Our local data confirms the high cesarean section rate in this subgroup of pregnancies. Improvements in the vaginal delivery rate should be undertaken.

P0598
ROBSON CLASSIFICATION IN C-SECTION RATE IN SANTIAGO, CHILE
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Objectives: Our local data confirms the high cesarean section rate in this subgroup of pregnancies. Improvements in the vaginal delivery rate should be undertaken.

Method: Retrospective analysis of deliveries from 2005 to 2013, in a metropolitan hospital in Santiago (Hospital Padre Hurtado). All deliveries were classified into Robson groups.

Results: The C-section rate was 53.788 deliveries in a nine-year period. The overall c section rate increased from 24% to 27%, with a greater increase in groups 1, 2, 4 and 5. All others remained stable. This means that our main increases are in primigravidae, with no increase in c section rate in parous women. Group 5, consistent of women with one or more c-sections, have high rates, and could be lowered.

Conclusions: Decision making in primigravidae is determinant to reach lower C-section rates in the future in our institution. Clinical improvements should aim improvements in this population.
Results: 22,745 primigravidae delivered in the study period. From these, 3,530 delivered by c-section (23.6%). From those that delivered vaginally in their first pregnancy, there were 4,463 subsequent deliveries: 3,363 were the second pregnancy and the rest corresponded to the third or more pregnancies. The overall C section rate in these was 9.7%.

From those that delivered by c-section in their first pregnancy (n=5,390), there were 1,155 pregnancies thereafter (1 or more), from which the C-section rate was 64.8% (749). There was a 16.6 OR of a C-section in the second pregnancy, when the first was a c-section.

Conclusions: The C-section rate in the subsequent pregnancy was greatly increased when the first one was a C-section. The results support that the first pregnancy needs particular care in lowering C-sections, in order to reduce the overall rate in an institution.

P0600
CHILD BIRTH EMERGENCY REFERRALS BY TRAINED TRADITIONAL BIRTH ATTENDANTS IN NIGERIA: THE NEED FOR FURTHER TRAINING

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Objectives: The aim of the study was to audit childbirth emergency referrals by trained traditional birth attendants (TBAs) to a specialist hospital in Enugu, Nigeria. The specific objectives were to assess the conditions of the referred women at presentation, indications for their referrals, obstetric delays at the TBAs, and the feto-maternal mortality ratios in this cohort.

Method: A retrospective study of 205 childbirth emergencies referred to Semino Specialist Hospital and Maternity (SSHM), Enugu, Nigeria by trained TBAs from August 1, 2011 to January 31, 2014. Data analysis was descriptive and inferential at 95% confidence level. All cases of women referred by TBAs were included for analysis. Patient data were collected from the hospital’s administrative software. A manual backwards stepwise logistic regression analysis was used to identify the risk factors for severe secondary PPH.

Results:

Delays of more than 12 hours had occurred in 155 (155/205, 76.6%) and absent in 42 (42/205, 20.4%) on admission. Delays of more than 12 hours had occurred in 155 (155/205, 76.6%) before referrals. Prolonged labor (100/205, 49.8%), obstructed labor (40/205, 19.5%), failure of vaginal birth after previous Caesarean section (40/205, 19.5%), and mal-presentation (30/205, 14.6%) were the common indications for referrals. The maternal mortality and perinatal mortality ratios were 610/100,000 live births and 228/1000 total births respectively.

Conclusions: Delays at TBA centers are common before referral and many patients are referred in poor clinical state. Further training and re-training of the TBAs with more emphasis on recognition of obstetric danger signs and bad obstetric histories may help in screening high-risk patients for prompt referral to hospitals before complications develop.
P0603
USE OF TRANEXAMIC ACID IN THE MANAGEMENT OF POST PARTUM HEMORRHAGE: TUNISIAN PRELIMINARY STUDY

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PARTUM HEMORRHAGE: TUNISIAN PRELIMINARY STUDY

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Method: To compare the efficacy of TXA in the management of partum hemorrhage in our unit.

Results: During the period of study (31 months), 40 patients fully completed the protocol. The average age of the patients was 29.7 years. The main causes of postpartum hemorrhage were: uterine atony (83%) and genital tract trauma (11%). TXA infusion was started on average after 27 min from the beginning of the hemorrhage. No adverse effects of TXA were observed. (18%) of our patients required a blood transfusion. The protocol succeeded in (81.1%) of the cases. Somewhere else, we used surgical options to stop hemorrhage.

Conclusions: This preliminary study can confirm the demonstration that TXA reduces blood loss and maternal morbidity in PPH. This product is useful in developing countries. Adverse effects were mild and transient. A larger study should be performed to investigate whether TXA could reduce maternal morbidity worldwide.

P0604
CLINICAL OBSTETRICS TRACK – LABOR AND DELIVERY. MATERNAL AND NEONATAL OUTCOME IN WOMEN DELIVERED AT A PRIVATE HOSPITAL, SOUTH INDIA

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Objectives: The study was done to know the maternal and neonatal outcome, cesarean section rate, NICU admission rate and risk factors in women delivered at a private hospital, South India.

Method: It is a retrospective study of 537 women delivered over a period of 9 months (January 2014 - September 2014) at Dr. Mehtas Hospitals, Chennai, India with tertiary NICU care and catering to various consultants. The age, parity, gestational age, maternal risk factors, mode of delivery, admission delivery interval, birth weight, sex, Apgar and NICU admissions of babies were analysed.

Results: The overall cesarean section rate was 62.9% with 52.5% and 74.7% in women booked at Mehta’s hospital and outside, respectively. Among women with GDM, PIH, oligohydramnios and IUGR the caesarean section rate was 74.7% in women booked at Mehta’s hospital and outside, respectively.

Conclusions: The high cesarean rate in a tertiary NICU referral centre was found to be due to high risk factors and early recourse to cesarean section in latent phase. Primary cesarean section rate was high. All previous CS had repeat LSCS. The possibility of VBAC should be considered in selective patients. In India, childbirth has great social implications. There is high family anxiety and pressure on the obstetrician to ensure earlier, smooth delivery and well-being of the newborn child. With patient and family education and counselling and proper intra-partum surveillance, vaginal delivery rate can be improved.
nal loading dose of misoprostol. After loading dose, 102 patients received vaginal 800 mg misoprostol and 70 patients received sublingual 400 mg every 12 hours repeatedly until the delivery of fetus.

**Results:** Both sequential sublingual and vaginal misoprostol after vaginal loading have similar result. Total 100 women (58%), 57 (55%) in vaginal group and 43 (61%) in sublingual group expulsed the fetus after one single vaginal loading dose of 800 mg misoprostol. 85 (82%) women in vaginal group had abortion within 24 hours and 58 (83%) in sublingual group. The age, gestational week, time to delivery, abortion within 12, 24, 48 hours, and analgesics use are not significantly different in two groups. The numbers of pelvic and speculum examination are significantly lower in sublingual group.

**Conclusions:** Sublingual had advantage of less pelvic examination. In this study, sublingual group had significant lower rates of pelvic examination and speculum examination, the administration interval was longer than other trial of 3 to 6-hour interval. The abortion rate and time to abortion is similar. Sequential sublingual misoprostol after vaginal loading dose of 800 mg with of administration interval of 12 hours had low pyrexia, similar abortion rate and time to abortion. Vaginal loading dose had the local effect and sequential sublingual route was easy for drug administration. This sequential regimen might be a suitable for mid-trimester abortion.

**P0607**

**USE OF PARTOGRAPH TO IDENTIFY COMPLICATIONS AND FACILITATE REFERRAL DECISIONS BY HEALTH PROVIDERS AT PERIPHERAL LEVEL**

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**Objectives:** The study aimed to determine the appropriate use of partographs to identify referral indications among admitted women.

**Background:** Bangladesh, normal delivery services at each of the 4,000 union level facilities is typically managed by a single female paramedic, with assistance from a female support staff. Identifying complications, and ensuring referrals is thus critical to ensure timely referral and prevent maternal and newborn deaths due to second delay. MaMoni HSS project introduced partograph as a tool for clinical decision making in five union level health facilities in 2012–2013 in Habiganj district, a northeastern district.

**Method:** The study conducted secondary analysis of the records of all 1,600 mothers who were admitted to the five health facilities between 1 July 2013 and 30 June 2014, including mothers who were admitted but was subsequently referred to a higher level facility. The analysis examined the use and completeness of the partographs for these mothers, and followed a decision-making algorithm to identify whether a complication occurred, was identified by the paramedic, and whether the mother was referred. The study also conducted key informant interviews to understand the nature of the constraints faced by paramedics in filling partographs and ensuring referral.

**Results:** Out of the 1,600 mothers who arrived at the facility, 23% mothers were directly referred, so a partograph was not filled. Among those mothers who were admitted, around 91% had a partograph completed. According to the partographs, 33% mothers had referral indication present. Among them, 2.7% were actually referred. Among 67% of mothers for whom referral was not indicated, 5% were referred to a higher level facility.

Key informant interviews revealed that understanding of partograph components varied from paramedic to paramedic, and referral decisions in several cases were based on practical considerations (distance, transportation availability, time progress of labor).

**Conclusions:** Use of partographs by paramedics in peripheral facilities not always effective for referral. There is a national discussion among professional bodies about use of simplified partograph. Getting effective coverage at scale of partograph use will depend on successfully addressing the constraints of the paramedics.

**P0608**

**DIMENSIONS OF RESPECT AND DIGNITY TO INFORM FACILITY-BASED BIRTH CARE: A REVIEW OF THREE CONCEPTUAL FRAMEWORKS FROM LOW AND HIGH-RESOURCED SETTINGS**

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**Objectives:** To present existing concepts for understanding both disrespectful care and respectful/dignified care that can affect facility-based birth in low-resource settings by reviewing published models.

**Method:** In this desk review, we will present the 7 rights of child-bearing women (White Ribbon Alliance 2012) corresponding to the 7 categories of disrespect and abuse (TRAction project 2012–2015); the 6 types of disrespectful physician behavior in high-resource settings (Leape et al 2012); and the 7 dimensions of respectful and dignified treatment and recommended provider behaviors in intensive care units (ICU) (Beach and Sugarman 2015). We will draw out universal themes and provide illustrative examples relevant to maternal health care in low-resource settings.

**Results:** Disrespect and abuse in facility-based birth in low-resource settings includes: physical abuse, non-consented, non-confidential, non-dignified care and discrimination, abandonment or denial of care, and detention in facilities. Disrespectful physician behaviors include: disruptions, humiliating treatment of non-physicians, passive-aggressive behavior, passive disrespect, dismissive treatment of patients, and relates to systemic disrespect. Dignified ICU care comprises: being treated as person, “golden rule”, acknowledgement, and treatment as: family/friend, individual, equal, and being important/valuable. Implications exist for client-provider verbal and non-verbal communication, interactions with client’s family, interactions among provider teams, and physical space, supplies and systems to support respectful facility-based birth care.

**Conclusions:** Conceptual frameworks from low and high-resource settings and different clinical service areas can inform how OB/GYNs interact with clients/patients, families and clinical team members to ensure that rights are respected and health services are utilized.

**P0609**

**WHY MOTHERS’ DEMAND CESAREAN SECTION IN AN UNCOMPLICATED PREGNANCY?**

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**Objectives:** WHO guidelines recommend that the proportion of caesarean births should range 5–15% and no additional benefit accrues to the neonates or the mothers when the rate exceeds this level. However, in recent years both in developed and developing countries, caesarean section (CS) rate has increased dramatically. In Sikkim, also CS rate has tripled over the last decade. There appears to be a developing tendency among women and physicians to promote the right of women to choose an elective CS.

The objectives of this study were to investigate the psychological, social and demographic factors associated with cesarean section on maternal demand.

**Method:** The state of Sikkim located in the eastern Himalayas became the 22nd state of Indian union. Sikkim Manipal Institute of Medical Sciences (SMIMS) is the only teaching hospital in the state of Sikkim, which provide comprehensive health care to the population of Sikkim.

It was a cross-sectional questionnaire based survey conducted in the Department of Obstetrics and Gynaecology of SMIMS, Gangtok from January 2014 to December 2014 among term pregnant women who requested for CS without any medical or obstetric indication. The data were analyzed by computer software Instat Graph Pad version 3and significance was decided at p-value 0.05.

**Results:** Mean ages of the pregnant women were 25.4 years and most of the women were primigravida. The rate of CS during the study
AN AUDIT OF TWIN PLACENTA PATHOLOGY REPORTS

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Objectives: It is considered good practice for the midwife to place a single umbilical clamp on the cord of Twin 1, two clamps on the cord of twin 2 and 3 clamps on the cord of triplet 3. This is the correct way to link disease identified in the placenta with the baby. This is not always done and practice varies. Our study aims to establish the number of placentas received that had correctly identified the placenta part of Twin 1 vs. Twin 2.

Method: A copy of all placenta reports for one year was obtained from computer print out of cases. Reports were examined to identify and count multiple births. When properly identified, placentas were reported as Placenta 1 and Placenta 2. If not properly identified or uncertain placentas were reported as Placenta A and Placenta B.

Results: Chorionicity was established for 60 Dichorionic Twins, 12 Monochorionic Twins, 5 Trichorionic triplets and one was unascertained chorionicity (Torn Membranes). 20 Dichorionic Placentas, 5 Monochorionic placetas and 3 Trichorionic placetas were correctly identified. 40 Dichorionic Placentas, 7 Monochorionic placetas, 2 Trichorionic placetas and one unascertained chorionicity were not appropriately identified and therefore were designated A, B or C.

Conclusions: Two thirds of placentas from twin pregnancies are not identified according to the recommended protocol. The importance of identifying the first born twin goes back to antiquity. The same does not appear to apply to the after-birth.

EFFECT OF OBESITY ON THE RATE OF CERVICAL DILATATION

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Objectives: Currently there is exponential increase in the incidence of maternal obesity which has far reaching effects on both the mother and fetus and providing a major challenge to obstetric practice. Antenatal and post natal complications of obesity is well researched however there are inadequate studies on effect of obesity on intra partum events, hence the need for this study. In this study we have examined the effect of obesity on the rate of cervical dilatation in labor.

Method: The study was conducted at BGS Global Medical College, Bangalore between January 2014 to January 2015. Laboring Primigravid women at gestational age more than 37 weeks were included in the study after an informed consent. First visit BMI was used to categorize weight as normal (<24), overweight (25 to 29.9), or obese (≥30). Groups were comparable in maternal age, parity, gestational age and other co-morbidities. Intrapartum monitoring of spontaneous progress of labor of these women in the three groups was done using the WHO Partograph. The rate of cervical dilatation in the three groups was analysed and compared using Chi Square test.

Results: During 13 months, 720 women met the inclusion criteria, and 34% were obese, 41% overweight and 25% normal weight. Rate of cervical dilatation was significantly slower in obese versus normal-weight women (p<0.001) and between normal versus overweight women (p<0.001). But there was no significant difference in the rate of cervical dilatation in overweight versus obese women (p<0.001).

Conclusions: We found that pre-pregnancy weight significantly altered the rate of cervical dilation and hence the duration of labor. Obese and over weight women prior to pregnancy had a significantly slower rate of cervical dilatation compared to normal weight women.
P0613
EFFECTIVENESS OF FOREIGN VERSUS LOCAL TRAINERS ON SKILLED BIRTH ATTENDANTS’ KNOWLEDGE AND SKILLS ACQUISITION AFTER SIMULATION-BASED TRAINING IN RURAL RWANDA

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Objective: To compare foreign versus local trainers in their effectiveness in training rural Rwandan Skilled Birth Attendants (SBA) using a combination of didactic presentations and simulation training in normal spontaneous vaginal delivery (NSVD) and postpartum hemorrhage (PPH).

Method: Nineteen participants received training by U.S. trainers (Group 1) and a local Rwandan interpreter, and fifteen by local Rwandan trainers (Group 2). Both groups received 5 days of NSVD and PPH didactic and simulation training. Summed scores of NSVD and PPH skills-based checklists were used to assess critical skills during simulated scenarios for both groups. Differences in pre-training scores between groups were assessed via independent samples t-tests. Change in NSVD and PPH scores as a result of training were assessed via MANOVA. Additionally, Group 2 completed pre and post training written tests, with scores analyzed using repeated measures t-tests.

Results: No demographic, experiential, or educational differences were found between groups. Both groups showed improvement in skills acquisition as a result of training, with Group 2 improving at a greater rate for both NSVD (F=12.88(32,1), p≤0.01) and PPH (F=24.25(32,1), p≤0.01). Post hoc analyses indicate significant differences between Group 1 and 2 post training scores (NSVD: t=4.566(32), p≤0.01; PPH: t=2.63(32), p=0.01), with Group 2 scoring higher. There were also significant differences between pre and post training written test scores of NSVD and PPH management knowledge (t=−8.91(14), p=0.01).

Conclusions: Comprehensive training programs that include didactic as well as simulation-based components may improve both knowledge and skills acquisition and this effect is greater when the training is provided by local trainers. Future studies are needed to determine the potential impact of socio-cultural factors on the effectiveness of foreign versus local trainers on knowledge and skills acquisition.

P0614
ANALYSIS OF THE ELECTIVE C-SECTIONS IN HOSPITAL PADRE HURTADO. A CONTAINMENT MODEL BASED ON CLINICAL GUIDELINES TO DECREASE ITS INDICATIONS

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Objective: Evaluate the elective C-section indication diagnosis, whether absolute or relative, and their evolution throughout time, ruled by guidelines which promote vaginal delivery.

Method: Retrospective descriptive study. The database of Hospital Padre Hurtado through January 2005 to December 2014 was reviewed. Elective C-sections diagnosis and its variation through time according to parity were analyzed.

Results: The overall C-section rate in the study period was 25.3%, being 7.5% of these elective C-sections and 17.8% emergency surgeries. 14.6% of the elective C-sections were in primiparous and 85.4% were in multiparous. Amongst primiparous, the main surgical indications were breech presentation in 29.3%, fetal macrosomia 20% and antepartum cephalopelvic disproportion 10.2%. The main indications in the multiparous group were previous double c-section (PCS) 34.5%, 1 PCS and poor obstetric conditions 29.4% and 1 PCS and fetus with a weight greater than 4000 grams 8.5% (range 12.1% in 2005 to 4.2% in 2014).

Conclusions: The analysis of absolute and relative C-section indications and its variation within the study time, shows that obstetric actions based upon guidelines which promote the vaginal delivery as the way of pregnancy end helps to constrain the elective C-sections rates.

P0615
THE EMERGENCY CESAREAN DELIVERY (eCD): CREATING A PROTOCOL TO OPTIMIZE PERFORMANCE AND OUTCOMES

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Objective: Minimal research exists regarding the optimal response to an eCD, with no defined protocol to date. This is in stark contrast to the research existing for respiratory and cardiac arrests. Within the context of quality improvement, we sought to determine the optimal response to an eCD, taking into consideration the unique aspects of this emergency, including the care of two patients, one of whom is typically awake, the need for transportation from the labor suite to the operating room, and the coordination of care with multiple health professionals and disciplines.

Method: We performed a needs assessment of our institution’s current response to the eCD. We conducted in situ simulations on Labor and Delivery using a prolonged bradycardia scenario with a “live” patient. We placed 5 video cameras in pertinent areas to capture scenes from various angles and perspectives. Videos were analyzed by an interprofessional and interdisciplinary team (Obstetrics, Anesthesiology, Neonatology, Nursing, a communication expert and patient) analyzing communication, work flow efficiency and patient experience. This resulted in the creation of an eCD protocol and the creation of a training video followed by training sessions to facilitate implementation of the new protocol.

Results: Communication was noted to be the greatest issue, with the following noted specifically: lack of a defined leader, lack of closed loop communication, excessive misfires from our hands-free, voice communication system, and lack of direct communication with patient/family. The workflow analysis demonstrated a lack of role definition for those involved in the eCD.

Conclusions: eCD are stressful situations for all involved. From our institution’s experiences, we created a training video demonstrating our expected response to an eCD. The video highlights the response members and the expected duties for each. We also explain the new methods for clearer communication, including a broadcast system that requires one call to alert all team members. We also emphasize the patient/family experience with the addition of a support person for the family. This video represents an initial step towards improving our communication and the efficiency of our response, as well as the development of an eCD protocol.
Conclusions: Studies investigating new treatments for postpartum haemorrhage (PPH) continue to be in high demand, due to PPH still carrying high risks of maternal morbidity and mortality. High quality observational studies may give some insight, but randomized controlled trials (RCT) are considered the highest level of evidence. Informed consent is mandatory but difficult in obstetrical emergency situations leaving a dilemma of whether to give a lot of pregnant woman information that might frighten them and in most cases unnecessary or to approach these women in a situation of pain, anxiety and vulnerability in the rare cases where severe PPH develops.

Method: All women assessed for eligibility in the FIB-PPH trial were either included and randomized or divided into groups depending on the reason for exclusion. The FIB-PPH trial investigated whether pre-emptive treatment with 2 g of fibrinogen concentrate for severe PPH could reduce the need for red blood cell transfusion. Written trial information was provided to all pregnant women by midwives during pregnancy. Informed written consent was sought during the pre-anaesthetic assessment either following the insertion of a labour epidural, prior to caesarean section or when PPH was diagnosed. Women were contacted 6 weeks post intervention and asked about their experience.

Results: A total of 1967 women were assessed for eligibility, 244 were included. At inclusion the mean blood loss was 1459 ml (SD 476).

Of the assessed women, 30% declined to participate and 23% were unable to give informed consent due to the acute situation (10%), psychological state (7%), language barrier (29%), were uninformed of the study (48%) or had other reasons (6%). At follow-up 76% of the randomized had a positive experience but 16% would have liked more information, 5% found timing of consent difficult and 1% regretted participating in the trial.

Conclusions: We observed not only exclusion of women that could potentially have been included, but also negative experiences from women included during an emergency situation. The external validity of the trial is hampered by the inquiry of informed consent which lead to exclusion of those women who are most affected by a large blood loss. The necessity of informed consent for randomized trials thus continues to be a challenge in emergency obstetrics.

P0618
A PPH VISUAL GUIDE: A SIMPLE AND A PRACTICAL SOLUTION FOR EARLY RECOGNITION AND INTERVENTION

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Objectives: Postpartum hemorrhage (PPH) is a significant cause of maternal morbidity and mortality. The impact is even more significant in developing countries. Diagnostic delays and lack of a systematic approach are among the challenges associated with substandard care. A visual guide of estimating blood loss coupled with systematic management strategies may be a simple solution towards early recognition and intervention. The objective of this study to evaluate the benefits of a PPH visual guide in a tertiary delivery unit, which delivers more than 12,000 deliveries a year.

Method: A PPH visual guide was created illustrating estimated blood loss for common “accessories” such as sanitary pads, tampons, vaginal packs, linen protectors, “sarong” and kidney dishes. It also had systematic management strategies of various severities of blood loss. The guide was mounted on a large poster in the labour suite and all categories of staff were trained to adhere to the guide. The primary outcomes were the incidence of mild and massive PPH 24 months before and after the introduction of the chart. The secondary outcomes were the need for multiple uterotonics agents, blood transfusions and caesarean hysterectomies.

Results: A total of 36,355 patients following vaginal deliveries were included in the four year study period. The incidence of mild PPH increased from 2.08% to 2.26% while massive PPH increased from 0.87% to 1.2% 24 months before and after the introduction of the PPH visual guide. This was directly contributed from increased in detection rates and was associated with increased in the need for repeat uterotonics agents.

Despite the increased incidence, less patients required second line uterotonics agents and there was a significant reduction in the need for blood transfusions and hysterectomies after the introduction of the PPH visual guide.

Conclusions: The essence of PPH management depends on early detection and a systematic approach of management. There is an urgent need for a simple and a practical solution which can be reproduced even in resource limited settings. A PPH visual guide has the potential to overcome these challenges and it is simple, cost effective and does not require much training. It may increase the detection rates but most importantly reduce the morbidities arising from PPH.

We recommend a PPH visual guide in all labour wards as a simple yet a practical solution for PPH management.

P0617
CHRONIC PUEPERAL INVERSION, RARE CAUSE OF SECONDARY INFERTILITY

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Objectives: Puerperal uterine inversion is a rare but very dangerous obstetrical complication. Herewith presenting a case of chronic puerperal inversion since 6 years who came for the treatment of secondary infertility since 6 years.

Method: Herewith presenting a case of chronic puerperal inversion of the uterus since 6 years who came to our college for the treatment of secondary infertility. Patient is primipara with the history of full term vaginal delivery at primary health care centre. After delivery she had puerperal inversion which was repositioned by a doctor at PHC. Patient developed chronic puerperal inversion and came to us as a case of secondary infertility.

Results: Chronic puerperal inversion was corrected by Haultain's method. Post-operatively, patient was put on cyclical premarin-mefloxyprogesterone therapy for three cycles. She had a full term LSCS and delivered a male child weighing 2700 gms after 2 years.

Conclusions: Although uncommon, if left unrecognized, uterine inversion will result in severe haemorrhage, infertility and shock. In the most resistant of inversions, surgical correction might be required. Careful management of delivery and avoiding faulty manoeuvres at the time of delivery can prevent puerperial inversion.
newborn care, has taken place during the last decades. In 2009, Norway had fewer obstetric institutions than the population-based estimated need according to the WHO Handbook on Monitoring Emergency Obstetric and Newborn Care (EmONC). Our objective was to assess the influence of centralization of obstetric care on institution accessibility and neonatal clinical outcomes.

**Method:** Population-based retrospective cohort study in Norway 1999–2009. Data sources: the Medical Birth Registry of Norway and Statistics Norway. Inclusion criteria: Singleton birth at gestational age ≥22 weeks or birth weight >500g (n=621142). Primary outcomes: Unplanned delivery outside institution, perinatal death during delivery and up to 28 days of age, and 5 minute Apgar-score. Main exposures: Annual volume in the obstetric institution and estimated travel time from the mother’s census address to the nearest obstetric institution. GIS software was used for travel time calculations. Statistic analyses by logistic regression and multilevel analyses adjusting for clustering.

**Results:** The perinatal death rate was 2.3 per 1000 (1412/621142), ranging from 0.1 to 0.3% for delivery in obstetric institutions and 0.5% for unplanned delivery outside institution (214353). Compared to residents in the 1-hour zone, women living further from institutions had significantly increased risk of unplanned delivery outside institution in 15 of the 19 Norwegian counties, odds ratios (OR) ranged from 1.6 to 12. Rural institutions <50 annual deliveries (n=1574) had a higher risk of perinatal mortality at 37–40 weeks gestation (adjusted OR 3.8, 95% CI 1.5 to 9.2) in comparison to institutions with >3000 deliveries annually.

**Conclusions:** Longer travel time was associated with increased risk of unplanned delivery outside institution and these deliveries had the highest absolute risk of perinatal death. The perinatal mortality rate at term was higher for small rural institutions when compared to larger institutions, reflecting the lack of emergency interventions and the transport delay from diagnosis to intervention for acute fetal distress. However, our study indicated that further centralization needs careful consideration to avoid an increasing inequality in access to obstetric institutions.

**P0620**

**EXTERNAL PELVIMETRY AND CAESAREAN SECTION INDICATIONS: FINDINGS FROM A PRELIMINARY STUDY IN RWANDAN NULLIPARES**

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**Objectives:** To compare different external pelvic diameters according to caesarean section indications (contracted pelvis versus others) in order to assess external pelvimetry as an efficient tool for screening nulliparous at risk in a limited resources environment.

**Method:** A study group of 152 nulliparous who gave birth among all pregnant women who were involved in a broad longitudinal study on clinical pelvimetry in the Southern province of Rwanda in 2007 was considered. Apart from well-known external pelvic diameters, the length of the base of the obstetric Trillat’s triangle (i.e. the reversed urogenital triangle) was also measured. Student’s t test was used to compare means of normally distributed external pelvic diameters in mothers who experienced caesarean section (contracted pelvis versus all other indications with vertex presentation).

**Results:** See Table 1. Apart from Bililac Diameter, differences are statistically significant.

**Conclusions:** Five external pelvic diameters proved to be significantly smaller in contracted pelvis cases. Despite evident limitations for this pilot study (e.g. small sample size, foetos size), it is worth carrying on with investigations using bigger sample sizes and including some potential confounding factors like foetos size and other ones. In case the findings of this study are confirmed, external pelvimetry could serve as a precious tool for antenatal clinic to screen nulliparae at risk in anticipation of a planned caesarean section in limited resources environment.

**P0621**

**TORSION OF A TERM UTERUS: A CASE REPORT**

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**Introduction:** Dextrorotation of a gravid uterus is a normal finding but however, rotation beyond 45 degree or torsion of entire uterus is a rare finding in obstetrical practice. We report a case of uterine torsion at term.

**Case report:** Booked patient G2P1 with previous one lower segment cesarean section came at 37 weeks of gestation with lower abdominal pain. At the time of admission her BP was 110/70, Pulse 100 and temperature was normal. On per abdominal examination fundal height was 36 weeks, longitudinal lie, presenting part cephalic 5/5 palpable. Clinically scar tenderness was negative and there were no palpable uterine contractions. On P/S examination no vaginal discharge was seen and urine C/E was also normal. Her ultrasound revealed intrauterine pregnancy of 36 weeks with scar thickness of 4.5mm.

**Method:** Patient was managed conservatively initially with anti spasmodic and had to proceed with emergency lower segment cesarean section after 12 hours due to persistent lower abdominal pain. Emergency cesarean was done under spinal anesthesia, pfnannent incision was made, lower uterine segment was exposed, and bladder flap could not be made. A female baby of 3.23 kg was delivered with Apgar score of 7 and 9 at one and five minutes. Followed by complete delivery of placenta and membranes. There were no unusual findings at this point of surgery. After the delivery, uterus untwisted itself through 180 degree and it was found that the incision was made in the posterior lower uterine segment and hence the diagnosis of uterine torsion was made. The uterine incision was closed with a double layer of delayed absorbing suture. The previous cesarean scar was thick and intact. No other uterine and adnexal abnormality was seen.

**Conclusions:** Since cesarean was done under spinal anesthesia patient was informed about the operative findings and Bilateral tubal ligation was done after taking consent from the patient and her husband. Bilateral tubal ligation was decided because there is no safety data available on pregnancy outcome with anterior and posterior uterine lower segment scars. The patient had an uneventful recovery and was discharged home on third postoperative day. The infant was initially admitted to new born nursery for transient tachypnea of new born and was discharged with the mother in good condition.

**P0622**

**DELIVERY OUTCOME IN WOMEN ON WHOM SURGERY BECAUSE OF ENDOMETRIOSIS WAS PERFORMED**

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**Objectives:** The aim of the study was to find out if women, on whom surgery because of endometriosis was performed, have a higher
risk for adverse delivery outcome and complications during labor and if endometriosis has an influence on the choice of the delivery mode.

**Method:** We included all women on whom surgery because of endometriosis was performed between January 2009 and March 2014 in the General Hospital Linz and between January 2013 and December 2013 in the Women’s General Hospital Linz who gave birth in the Women’s General Hospital Linz until March 2015. We extracted data from these women’s medical record and also contacted them and asked about endometriosis related symptoms before and after the pregnancy.

**Results:** A total of 609 women underwent surgery because of endometriosis in the period of time as defined above and until March 2015. 66 of these women gave birth in the Women’s General Hospital Linz.

**Conclusions:** Women on whom surgery because of endometriosis was performed should be counseled during pregnancy about the possible risks associated with spontaneous delivery and caesarean section. They also need to be informed about the possible risk of colon perforation during delivery.

**P0623**

**MATERNAL SELF-REPORTS OF POSTPARTUM BLEEDING: FINDINGS FROM A TRIAL OF SELF-ADMINISTERED MISOPROSTOL IN RURAL UGANDA**

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**Objectives:** Studies assessing the clinical effectiveness of postpartum haemorrhage (PPH) interventions rely on various tools and indicators for identifying PPH and determining its severity, including blood collection receptacles/mats, self-reported bleeding, haemoglobin (Hb) assessments, and documentation of PPH morbidity. Depending on the delivery environment and available resources, these tools and outcome measures have different implementation challenges. The aim of this analysis is to understand better the utility of self-reported bleeding in homebirths.

**Method:** Results from a community-based trial of self-administered misoprostol were analysed to explore the relationship between self-reported postpartum bleeding among homebirths and Hb outcomes. Consent seeking women at four antenatal Ugandan clinics in Mbale were enrolled and pre-delivery Hb was assessed (Hemocue® device). Post-partum interviews, which included two questions on perceived blood loss, were conducted 3–5 days after birth to record details of delivery. Postpartum Hb was measured at this visit. Pearson correlation and sensitivity were calculated to explore how self-reported bleeding correlates with Hb fall >20% pre- to post-delivery (the study’s primary outcome).

**Results:** Data for 177 homebirths were analysed. Few women (8%) experienced a decline in Hb >20%. When asked to describe their blood loss, eight women (4%) indicated “heavy” referring to a Picturegram (mild/moderate/heavy). Four women rated their bleeding as “a lot” or “heavy” in a separate question (Likert scale, 1 = “very little”, 5 = “heavy”). Women’s reports were inconsistent between these two questions, and there was poor agreement when comparing perceived heavy bleeding (per Picturegram) with Hb fall >20% (sensitivity value: 0.20). Self-reported heavy bleeding and Hb decline >20% were found to be significantly, though weakly, correlated (Pearson R=0.227, p-value=0.002).

**Conclusions:** Women’s reports of heavy bleeding do not correlate well with peripartum Hb drop. This finding may be due to the lack of severe PPH cases in this sample. Accuracy of self-reported bleeding for other outcomes related to PPH might differ from this analysis.
**P0626**

**FACTORS ASSOCIATED WITH CESAREAN SECTION IN PRIMIPAROUS ASSISTED IN THE PUBLIC SERVICES OF THE BRAZILIAN HEALTH SYSTEM**

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**Objectives:** The objective of this study is to describe the factors associated with cesarean delivery in primiparous with singleton pregnancy at term, with fetus in cephalic presentation assisted in the Public Services of the Brazilian Health System (SUS).

**Method:** We used data from the survey “Born in Brazil”, hospital-based cohort conducted with 23,894 women from February 2011 to October 2012. Interviews were conducted with mothers, data taken from hospital records of the woman and baby and also obtained data about the hospital structure in an interview with managers. A descriptive analysis was made of demographic, social and obstetric women categories, and also about the prenatal care and childbirth assistance received. Univariate and multivariate logistic regression was performed to identify factors associated with elective and intrapartum cesarean section.

**Results:** Cesarean rate was 40.9%, 18.1% were elective and 22.7% intrapartum. Elective cesarean was associated with maternal age higher than 35 years, complications during pregnancy and prenatal care and childbirth assistance by the same professional. The intrapartum cesarean section was associated with pilgrimage in search for hospital delivery, complications during pregnancy, care by the same professional during pregnancy and childbirth and early hospitalization with uterine cervix less than 4 cm dilated. The use of good practices during labor assistance (diet, freedom of movement, companionship presence, use of non-pharmacological methods for pain relief and use of partograph) were associated with vaginal delivery.

**Conclusions:** Access difficulties, with pilgrimage during labor, and inadequate management of labor, with early admission and low use of good practices indicate the need for improvements in the organization of delivery care network and use of clinical guidelines based on evidence in public services. Complications during pregnancy and prenatal and delivery care by the same professional showed a strong association with elective and intrapartum cesarean section highlighting the need for adequate prenatal care to these pregnant women with complications and careful indication of cesarean section in these situations.

**P0627**

**MODIFIED BIOPHYSICAL PROFILE: IT'S IMPORTANCE IN FETAL SURVEILLANCE AT THE TIME OF LABOR**

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**Objectives:** To assess the effectiveness of Modified Biophysical profile in fetal surveillance during labor.

**Method:** 100 cases were included in this study from Abha hospital. All the cases were randomly included in the study and were subjected for Non Stress test and Amniotic fluid index. Both high and low risk pregnant women are included. All these women were allowed to have normal progress of labor with continuous cardiotocogram monitoring. Abnormal fetal heart patterns and Meconium stained liquors were identified as poor predictors. All these newborns APGAR scores were assessed in those who delivered by either cesarean section or normal deliveries. At the end Good and poor MBP was correlated with Good and Poor APGAR scores.

**Results:** Out of 100 pregnant women 15 pregnant women had non-reactive stress test and 5 had equivocal recordings. All these 20 women had AFI less than 5 centimeters [ranged from 2–5 cm]. All these women showed late decelerations and Meconium stained liquor. All these newborn infants had low APGAR scores which ranged from 6–8 in 1st and 5th minute. There is good correlation between patients with poor MBP, with fetal distress and low APGAR scores.

**Conclusions:** Modified biophysical profile can be performed in all pregnant women for suspecting the possible hypoxic babies and also for preventing poor outcome in the newborns. Appropriate interventions like intense fetal monitoring and operative deliveries can be performed to prevent perinatal morbidity and mortality. However, as the sample size is limited in this study and needs to continue with larger sample size for statistical significance.

**P0628**

**LENGTH OF SURVIVAL AFTER DELIVERY IN PREVIABLE INFANTS**

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**Objectives:** The delivery of an extremely premature infant prior to viability creates difficult decisions for health care providers and parents. The objective of this study is to describe factors influencing duration of survival after delivery in preivable infants.

**Method:** A retrospective cohort study of all live deliveries before 23 weeks gestation at a single urban tertiary care center from 2010 to 2014 was performed. Descriptive statistics were used to summarize patient characteristics. Univariate and multivariate analyses examined factors associated with increased length of life.

**Results:** Forty-six cases of live birth at less than 23 weeks gestation were identified. Mean length of life was 111 minutes and mean gestational age was 20 weeks 5 days.

Increasing gestational age at delivery and birth weight were associated with greater length of life (P=0.018 and P=0.012). For every one-week increase in gestational age, length of life increased 11 minutes, starting at 46 minutes for 15 week gestations. For every 10-gram increase in birth weight, length of life increased by 2 minutes, with an infant weighing 100 grams expected to live 65 minutes.

**Conclusions:** Our study identified gestational age, birth weight, antibiotics and antenatal steroids as factors associated with increased length of life, which can be useful when counseling parents about expectations in preivable birth.

**P0629**

**RISK FACTORS FOR COMPLETE RUPTURE IN INTACT UTERUS AFTER TRIAL OF LABOR**

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**Objectives:** Uterine rupture is very rare in intact uterus, especially in developed countries. However, we observed an increasing trend in its incidence in recent years in Norway. The aim of this study was to identify the risk factors for complete uterine rupture, through studying a validated sample of mothers who gave birth in the period 1967–2008.

**Method:** This was a retrospective population-based study, using data
from the Medical Birth Registry of Norway and the Patient Administration System in maternity units. All case records of mothers identified with uterine ruptures, were studied, and validated. Population: 1,353,636 mothers with intact uteri, representing 59% of pregnant population with intact uteri (1967–2008).

Main outcome measure: Complete uterine rupture.

Explanatory variables: Demographic, pregnancy and labor risk factors.

Multivariable logistic regression was used to measure the adjusted odds ratios AORs with 95% confidence intervals (CI) for complete rupture in intact uterus after trial of labor (TOL).

Results: There were 59 ruptures (0.04/1000), where 51 after TOL, and 8 at pre-labor cesarean section. Adjusted OR with 95% CI for risk factors for ruptures were: maternal age ≥35 (2.18; 1.2–3.8), Parity ≥3 (3.16; 1.8–5.4), Mothers from African Horn versus European (5.24; 1.2–21.7), Previous miscarriages (9.52; 5.2–17.2); Birth weight ≥4000 gm (2.61; 1.4–4.6), Antepartum fetal death (16.15; 6.6–39.2), Gestational age ≥41 weeks (1.82; 1.1–3.3), Induced labor (4.88; 2.7–8.7); Induction methods versus spontaneous labor (Prostaglandins: 4.31; 1.7–10.4, Oxytocin: 5.97; 2.9–12.2, Combination Prostaglandin/Oxytocin: 41.26; 17.5–97.1), Augmentation of labor with Oxytocin (14.26; 7.1–28.6), and Breech extraction (73.93; 29.2–214.1).

Conclusions: Complete uterine ruptures occur very rarely in intact uterus. Most important factors increasing rupture risk at TOL are related to our obstetric interventions such as Induction of labor using combination prostaglandins/oxytocin, breech extraction and, augmentation of labor with oxytocin. Antepartum death is an important risk factor indicating reduced vigilance due to the absence of fetal heart and aggressive use of interventions. Mothers with previous miscarriages, constitute a high risk group indicating disrupted uterine wall integrity after curettage. Guidelines for management of labor should be updated regarding common excessive use of induction and oxytocin during labor.

P0630 FACTORS ASSOCIATED WITH SPONTANEOUS PERINEAL LACERATIONS IN DELIVERIES WITHOUT EPISIOTOMY IN A UNIVERSITY MATERNITY HOSPITAL IN BRAZIL: A COHORT STUDY

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Objectives: To determine factors associated with spontaneous perineal laceration in low-risk pregnant women who delivered vaginally without episiotomy in a university maternity hospital in Recife, Pernambuco, Brazil.

Method: A prospective cohort study was conducted with 222 low-risk, full-term pregnant women admitted in labor with a single fetus in cephalic presentation. Women with malformed fetuses were excluded from the study. The variables analyzed were: the frequency and severity of lacerations, the women’s biological, sociodemographic, clinical and obstetrical characteristics, neonatal characteristics and data on their deliveries and procedures. For the data analysis, odds ratios and their 95% confidence intervals were calculated. A significance level of 5% was adopted and multiple regression analysis was performed.

Results: Spontaneous first-degree perineal tears were registered in 47% of the women, second-degree tears in 31% and third-degree tears in only 1.8%. There were no cases of fourth-degree tears. Having experienced normal childbirth previously constituted a protective factor against vaginal tearing (OR=0.46; 95% CI: 0.23–0.91; p=0.027).

Conclusions: The principal protective factor against spontaneous lacerations was having experienced normal childbirth previously. Intrapartum strategies aimed at protecting the perineum and pelvic floor muscle training during prenatal care should be encouraged in these women.

P0631 TEEN MOTHERS: ARE THEIR OBSTETRIC AND PERINATAL OUTCOMES WORSE? A STUDY IN RURAL VICTORIA, AUSTRALIA

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Objectives: To determine whether teenage pregnancy is associated with an increased risk of adverse pregnancy outcomes. To better identify the contributors to the increased risk in teenaged mothers, particularly with regards to BMI, substance use and indigenous status.

Method: A retrospective audit was conducted in Gippsland in regional Victoria, Australia. After ethics approval was obtained, birth records were analysed to obtain clinical data for women who delivered at Latrobe Regional Hospital. A 5 year period was audited (January 2010 – December 2014), with a total of 297 teenagers delivering at the hospital. This patient population was compared with a random selection of non-teen mothers delivering at the hospital over the same time period (293 women).

Information was collected on maternal and perinatal adverse outcomes in addition to maternal risk factors, focusing on BMI, substance use and indigenous status.

Results: More teenaged mothers were likely to encounter an adverse pregnancy outcome (46.1%), when compared to non-teenaged mothers (42.3%). 14.6% of teen mothers abused substances while pregnant compared to 9.6% of non-teen mothers. A much higher proportion of teen mothers smoked antenatally (54.6% compared to 23.3%), but the teens were more likely to have a normal BMI of between 20–25 (56.2% versus 58.2%).

Despite a relatively low population of indigenous women in the area, teen mothers were also more likely to identify as Aboriginal or Torres Strait Islander (10.41% compared to 2.44%).

Conclusions: Overall, the study confirmed that teenage mothers pose a greater risk in terms of adverse obstetric and neonatal outcomes. A major contributor to this heightened risk was found to be the significant amount of substance use and smoking in this younger population. Many of these young mothers were found to be of an indigenous background, therefore they may therefore benefit from better utilization of indigenous healthcare workers during the antenatal period.

By identifying the additional risk teen mothers are placed under, we as healthcare providers can better target our care to improve the outcomes in this high-risk population.

P0632 PLACENTAL BLOOD DRAINAGE AS A PART OF ACTIVE MANAGEMENT OF THIRD STAGE OF LABOUR AFTER SPONTANEOUS VAGINAL DELIVERY

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Objectives: The third stage of labour commences after the delivery of the foetus and ends with the delivery of the placenta and its membranes. Postpartum haemorrhage is the most common cause of maternal mortality, and accounts for about 25% of maternal deaths in India. The present study was designed to evaluate the effectiveness of placental blood drainage after spontaneous vaginal delivery in decreasing the duration, blood loss and complications of the third stage; against no drainage of placental blood.

Method: 200 pregnant patients with 37 or more weeks of gestation, with single live foetus in cephalic presentation; who underwent a spontaneous vaginal delivery were included in the study. The patients were prospectively randomized equally into two groups (100 each in the study and control groups). Placental blood was drained
in all the patients in the study group whereas in the control group the cord blood was not drained. Blood lost in the third stage of labour was measured by collecting in a disposable conical measuring bag and blood from the episiotomy was mopped and the mops were discarded separately.

**Results:** The baseline statistics in both the group were comparable. The duration of third stage of labour was 210.5 sec in the study group and 302.5 sec in the control group. The “p” value was statistically significant (p≤0.0001). The mean blood loss in study group was 227.5 ml and 313.3 ml in the control group (p≤0.0001). The incidence of postpartum haemorrhage was 1% in study group and 9% in control group. The mean drop in Hb% level was 0.6 gm/dl in study group and 1.1 gm/dl in control group. These above differences were both statistically significant.

**Conclusions:** Placental blood drainage as part of active management of third stage of labour was effective in reducing the duration, the blood loss and also the incidence of PPH. Placental blood drainage is a simple, safe and non-invasive method of managing the third stage of labour, which can be practiced in both tertiary care centres as well as rural setup in addition to the routine uterotonics.

**P0633**

TRANSDERMAL NITRO-GLYCERINE VERSUS ORAL NIFEDIPINE FOR ACUTE TOCOLYSIS IN PRETERM LABOUR: A RANDOMISED CONTROLLED TRIAL

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**Objectives:** To compare the safety & efficacy of transdermal nitroglycerin with oral nifedipine in the inhibition of preterm labor.

**Method:** This study included 100 women in preterm labor, randomly divided into two groups, 50 receiving oral nifedipine and 50, transdermal nitroglycerin (NTG). Patients in preterm labour with a single gestation, between the 28th and the 34th week and no contraindication for tocolysis were selected. Women with fetal malformation and medical or obstetric diseases were excluded. The variables analyzed were: delay in delivery for 48 hours, 7 days or more than 7 days, period of gestation at delivery, side effect profile of drugs & neonatal outcomes.

**Results:** Mean prolongation of pregnancy with NTG (34.59 days) was similar to that of nifedipine (29.09 days). Nitroglycerine was significantly more successful in prolonging pregnancy beyond 48 hours. Failure of acute tocolysis, defined as delivery within 48 hours, was significantly more common with nifedipine (32%) as compared to transdermal nitroglycerin (12%). Headache was significantly higher in the nifedipine group (42%) compared to NTG group (4%). The neonatal outcomes in terms of the mean birth weight, incidence of low birth weight and very low birth weight babies, need and duration of neonatal intensive care was similar in both groups.

**Conclusions:** Transdermal nitroglycerine is a safe and effective tocolytic with a lower failure rate and better side effect profile as compared with oral nifedipine.

**P0634**

WIRELESS MATERNAL VITAL SIGN MONITORING IN INPATIENT FULL-TERM PREGNANT WOMEN: A FEASIBILITY AND ACCEPTABILITY STUDY

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**Objectives:** Childbirth is one of the most common reasons for admission to hospitals worldwide. Severe shortages in health providers often limit the ability to adequately perform the frequent and intense monitoring that underpins safe delivery. Wireless vital sign (VS) monitoring of pregnant women represents a novel application of wireless technology with the potential to relieve a significant human resource burden both in high and low resource settings.

**Objective:** We sought to pilot a wireless VS monitoring device, capable of measuring continuous heart rate (HR), temperature (temp) and respiratory rate (RR), for functionality and acceptability on an inpatient obstetric unit.

**Method:** Pregnant women were asked to wear the wireless monitoring device for 30 minutes, and nurses observed its use. Measurements of HR, temp and RR were taken by study nurses using standard devices at 0, 15 and 30 minutes to test agreement. We defined functional success of the device as continuous capture of VS for 30 minutes and the wireless transfer of that data to a central monitor. Bland-Altman plots were constructed to assess agreement between measurements taken by the wireless device and standard measurements. Closed and open-ended questions on perceived utility and acceptability were administered to pregnant women and nurses.

**Results:** 32 pregnant women enrolled. 30 (94%) had successful monitoring. 6 non-study nurses interacted with the device. Mean HR, temp, and RR at baseline were 78±13 bpm, 36.4±0.7 °C and 17±2 breaths per minute by standard measurement and 75±11 bpm, 36.9±1 °C and 15±4 bpm by the wireless device. We found a linear trend in the mean difference and limits of agreement between standard and wireless devices with 6.9%, 3.7% and 4.6% falling outside the 95% CI for HR, temp and RR respectively. 59.4% of pregnant women found the device comfortable and 80% of nurses found it easy to use.

**Conclusions:** Our pilot study demonstrated initial success in obtaining maternal vital signs on an inpatient obstetric unit using a simple to use and comfortable wireless device. Further testing in a larger sample will be needed to validate accuracy in the pregnant population. Devices capable of measuring blood pressure wirelessly should also be investigated. The transformative potential of this technology may be greatest in resource limited settings where the health care workforce is so limited that routine vital signs are unable to be obtained during labour.
bleeding or bleeding from operation site. Multidisciplinary involvement if surgical team was initiated with an agreement for conservative management till further imaging was done in the morning. Pt was transferred to ITU. Bed side abdominal Scan in the morning confirmed retroperitoneal bleeding/Haematoma. She was transferred to JRH, Oxford for embolisation of leaking iliac vessel. She was subsequently managed conservatively over 3 months.

Conclusions: This is a case of concealed massive retroperitoneal hematoma from rupture of a branch of internal iliac vessel. Conceded Haemorrhages associated with pregnancy can difficult to diagnose. This case has an association with prolonged labour, C-section and anticoagulant therapy but difficult to attribute any of these factors to this case.

Early imaging like abdominal ultrasound may have helped with early diagnosis. The case further highlighted the importance of early scoring methods like MOWS chart in care of patients on labour ward. The prolonged recovery from delivery interrupted her opportunity to establish proper breast feeding and bonding with her child.

**P0636**

**BACTERIURIA WITH GROUP B STREPTOCOCCUS AND PRETERM BIRTH: A COHORT STUDY**

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**Objectives:** Preterm delivery (PTD) contributes to 70% of all perinatal deaths and nearly 50% of permanent neurological damages in children. Treatment and follow-up to prevent recolonization in pregnant women with Group B Streptococcus (GBS) in the urine may reduce the frequency of PTD. In a Cochrane review, the incidence of low birth weight infants was reduced, however, not for PTD. The association between asymptomatic bacteriuria during pregnancy and PTD remains controversial. The objective of this study was to investigate whether there is an association between GBS bacteriuria (BU) in pregnancy and PTD.

**Method:** A retrospective population-based cohort consisting of 36,097 pregnant women from Hospital Lillebaelt area, Denmark, during January 2002–December 2012, of whom 37.2% (equivalent to 13,417) have undergone culture of their urine at the Department of Clinical Microbiology. Information on gestational age at birth and testing for GBS and other significant variables were obtained from the National Birth Register. Pregnant women with positive BU and GBS and pregnant women with negative BU and GBS were primarily compared for the occurrence of PTD. For statistical analyses, we mainly used bivariate tests including Chi-square, Student’s t-test, stratified analyzes, and multivariate regression analyzes.

**Results:** Out of 13,417 singleton deliveries, 6.9% (n 921) of women had asymptomatic GBS BU during their pregnancy, and 9.1% (n 1,218) delivered preterm. Among women with GBS BU 133 delivered preterm (10.9%), while among the GBS BU negative 1,085 (8.7%) delivered preterm; indicating an association between GBS BU and PTD in crude analyzes (Odds Ratio 1.8; 95% Confidence Interval 1.5–2.2; P <.001). Other important characteristics of the population include that 1.8% (n 256) had a previous cervical cone biopsy operation, 4.7% (n 305) of the multiparous had a previous PTD, 28.8% had BMI ≥30, and 19.0% were smokers in pregnancy.

**Conclusions:** Group B Streptococcus bacteriuria might be a risk factor for preterm delivery.

**P0637**

**ROUTINES OF OBSTETRICS SERVICES OF THE METROPOLITAN REGION OF CAMPINAS**

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**Objectives:** Brazilian maternal and perinatal morbidity and mortality indicators are persistently at intermediate level, with variations across the country, regardless of high rates of antenatal care and virtually 100% institutional deliveries. Good practice during labor and delivery has been recommended, but few studies reported the routine interventions in hospitals during deliveries. The study aims to describe routine procedures when caring for women delivering at 17 obstetric services in the metropolitan region of Campinas (RMC).

**Method:** This is a descriptive study of the routine of care at obstetric services of RMC, using the “Assessment Instrument of Good Practice when Caring for Women and Newborns at Birth” (Ministry of Health) and other complementary questionnaire specially developed for this study. The elected participants were 17 public obstetric services from 19 municipalities composing the RMC, but only 16 agreed to participate. Data collection took place between August and October 2014. Data analysis was exploratory and descriptive.

**Results:** Thirteen hospitals used partograph, 10 frequently used labor oxytocin, nine often performed episiotomy, and 14 performed 3rd period active management. All hospitals provided HIV and syphilis screening. Almost all induced prolonged gestation and premature rupture of membranes and 15 had protocols for severe hypertension and group B Streptococcus protocols. Five hospitals were not using antibiotics for C-sections. Blood products were unavailable in four hospitals, and eight could not care for critically ill patients. Fifteen hospitals reported having trained professional for newborn care and immediate breastfeeding. Companion during labor and delivery was routine for nine and 14 hospitals respectively.

**Conclusions:** The findings of this study showed that qualified healthcare practices according to literature recommendations for care during labor and birth is available in almost all hospitals at this Brazilian metropolitan area. However, some routines need improvement to reduce morbidity and mortality, as antibiotic use for 100% of C-sections, blood availability and critically ill care. The results of this study highlight the importance of revising the routines of care in institutions to support the planning of health interventions to reduce morbidity and maternal and perinatal mortality.

**P0638**

**MATERNAL AND PERINATAL INDICATORS OF THE METROPOLITAN REGION CAMPINAS: ROLE OF SOCIOECONOMIC CHARACTERISTICS**

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**Objectives:** While the Brazilian Unified Health System (SUS) provides universal coverage for antenatal care and delivery, there is a perceived inadequate quality of perinatal care, incompatible with the services availability in the region Thus, it is necessary to characterize care offered at delivery for women in the Metropolitan Region of Campinas (RMC), through the mapping of maternal, perinatal and socioeconomic health indicators for the 19 municipalities of a region with intermediate maternal mortality ratio (MMR) for 2.3 million inhabitants (2.2 million in urban area).

**Method:** Ecological design was applied. The correlation between 2011 maternal, perinatal and socioeconomic indicators from 19 municipalities at the MRC, a region), and 17 hospitals providing obstetric care was studied. The information was collected from the Ministry of Health–DATASUS, the State Foundation on Data Analysis (SEADE) and the 2010 census (IBGE). Maternal health indicators included Maternal Mortality Ratio (MMR), Fertility rate, cesarean section rate and mothers with less than seven antenatal visits. Perinatal indicators included...
perinatal mortality ratio (PMR), very low birth weight (VLBW), premature and 1st minute Apgar score. Correlation coefficient and regression analysis were applied.

Results: Ecological design was applied. The correlation between 2011 maternal, perinatal and socioeconomic indicators from 19 municipalities at the MRC, a region, and 17 hospitals providing obstetric care was studied. The information was collected from the Ministry of Health-DATASUS, the State Foundation on Data Analysis (SEADE) and the 2010 census (IBGE). Maternal health indicators included Maternal Mortality Ratio (MMR), fertility rate, cesarean section rate and mothers with less than seven antenatal visits. Perinatal indicators included perinatal mortality ratio (PMR), very low birth weight (VLBW), prematurity and 1st minute Apgar score. Correlation coefficient and regression analysis were applied.

Conclusions: Despite the social improvement and universal health care system in Brazil, particularly relevant for the wealthy region studied here, there are evident socioeconomic inequalities in labor and delivery care in Brazil. The worst results for perinatal indicators are present in most vulnerable populations, including women with lower level of education, and income. To improve the health care for mothers and infants, obstetric evidence-based care, and strategies to reduce social and educational inequalities are still needed.

P0639
EXCESSIVE BLEEDING IS A NORMAL CLEANSING PROCESS: A QUALITATIVE STUDY OF POSTPARTUM HAEMORRHAGE AMONG RURAL WOMEN IN UGANDA

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Objectives: To explore community perceptions and practices towards postpartum haemorrhage among women and their caregivers.

Method: Globally, postpartum haemorrhage (PPH) remains the leading cause of maternal deaths. In settings where many women still deliver at home under the care of unskilled attendants, uterotonic are inaccessible, it is important to understand how women and their caregivers recognize, what actions they take to prevent and treat PPH, and the meaning attached to bleeding after childbirth. Between April and June 2012, a phenomenological study was carried out in a rural district in Uganda where 15 in-depths interviews were conducted. Respondents were purposively sampled and included women who had delivered at home in the past year and traditional birth attendants.

Results: Bleeding after childbirth was considered as normal cleansing process, which if inhibited would have bad health consequences. A range of criteria were used to recognize PPH. These were; rate of blood flow, amount of blood equivalence of hand fist, to signs and symptoms of hypovolemic shock. The respondents seemed to know the women at risk of PPH (twin pregnancies, high parity and prolonged labour).

Conclusions: Perceptions attached to bleeding after child birth and recognition of PPH suggest a delay to seeking care. To reduce delays in making the decision to seek care, there is a need to raise awareness among women and their families about the risk of death in the immediate postpartum period due to excessive bleeding.

P0640
CURRENT PRACTICE OF INTRAPARTUM ANALGESIA AMONG DOCTORS IN NIGERIA

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Objectives: The objectives of this study are to: 1. Determine the knowledge, attitude and practice of intrapartum analgesia among Doctors practicing at tertiary institutions in Nigeria. 2. Identify constraints to the practice of intrapartum analgesia to parturients in Nigeria.

Method: This descriptive cross-sectional questionnaire-based study was conducted at 3 tertiary health institutions in Nigeria. Structured questionnaires were utilized to retrieve information on socio-demographic characteristics of respondents as well as knowledge, attitude and practice of Intrapartum analgesia. The questionnaires were administered to Obstetricians, resident doctor’s as well as interns in the Department of Obstetrics and Gynaecology at the 3 surveyed hospitals located in 3 of the 6 geopolitical zones of Nigeria. The study also assessed the hindrances to the practice of Intrapartum analgesia among respondents. Data was analyzed using SPSS version 17 statistical software.

Results: The total number of respondents was 81. Majority (91.4%) were aware of several methods of intrapartum analgesia with knowledge of epidural analgesia being highest at 86.4%. Male respondents were twice as likely to have counseled a woman for intrapartum analgesia when compared with female respondents (OR=2.074). More than half (59.3%) had never counseled patients’ for intrapartum analgesia for various reasons including lack of institutional protocol, unavailability of anesthetist, and cultural belief that women would prefer to experience labour pains. While a majority (93.8%) believed that intrapartum analgesia was important, 46.9% did not believe that it should be routinely offered.

Conclusions: Although there was a high level of knowledge of various forms of intrapartum analgesia among respondents, this was not commensurate with practice which was quite low. Lack of institutional protocol, insufficient man-power and cultural influences contribute to this. Continuing medical education of medical practitioners as well as provision of appropriate facilities and man-power will go a long way in improving the practice of intrapartum analgesia to women in Nigeria.

P0641
VISUAL ESTIMATION OF POST PARTUM HEMORRHAGE AND ITS TREATMENT

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Objectives: Postpartum hemorrhage is a leading cause of maternal morbidity and mortality that is preventive by appropriate estimation of blood loss and its treatment. This study was undertaken to evaluate the accuracy of visual estimation of postpartum hemorrhage by clinicians and co worker who work in the obstetrics department.

Method: In this descriptive observational study, 199 educational/clinical person participated who worked in the obstetrics department of 3 training hospital in Mashhin 2010. First characteristic of their occupation, educational and period of experience recorded. Then scenes similar of postpartum hemorrhage were rebuilt busing of expired whole blood in five different volume (500, 1000, 1500, 2000, 2500, 3000 cc). Participants looked each scenes and estimated volume and necessary treatment and record in forms. Data were analyzed by SPSS software version 12 and fisher and stude-
results and relation between accurate volume of hemorrhage and estimated volume and treatment, occupation and experience of participants were determined.

Results: Accuracy visual estimation of blood loss in different volume of postpartum hemorrhage was between 14.3% to 52%. There was no significant association between the position of the participants and accuracy of their estimation and proposed treatments. There was no association between the staffs’ work experience and accuracy of their estimation.

Conclusions: Visual estimation of blood loss was not accurate in the majority of participants. For prevention of maternal morbidity and mortality education is necessary that to be skilled for accurate estimation of blood loss.

P0642
DOES ETHNICITY AND TIMING OF DELIVERY IN POSTDATE PREGNANCY AFFECT MATERNAL AND FETAL OUTCOME? A CROSS SECTIONAL STUDY FROM THE NATIONAL OBSTETRICS REGISTRY MALAYSIA

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Objectives: Postdate pregnancy is defined as pregnancy that extends beyond 40+0 weeks of gestation. Studies have shown that induction of labour at or from 41 weeks reduce perinatal morbidity without increasing caesarean section (CS) rates and other adverse outcomes. In Malaysia, there is no guidelines on timing of induction of labour. There is wide variation in practice of induction among hospitals ranging from 40 weeks +3 days, 40 weeks + 6 days, 41 weeks + 2 days and beyond 41 weeks + 3 days. This study was to see if the difference in timing of induction contributes to maternal and perinatal outcomes.

Method: This is a retrospective cohort study using data from the National Obstetrics Registry (NOR). NOR is a clinical database that compiles obstetric data from 14 tertiary hospitals in Peninsular Malaysia and East Malaysia. Specific variables were analysed against the 3 major ethnicity in Malaysia namely Malay, Chinese and Indians to see if timing of induction by ethnicity has any significance on the outcome. The study period was from 1st January 2011 to 31st Dec 2012. The analysis was performed using STATA statistical software. Descriptive statistics was obtained initially followed by multinomial regression. P value <0.001 was taken as significant.

Results: The prevalence of postdate pregnancy is 20.1% in this study. There was less risk for a CS in all ethnicity when induced at 40+3 and 40+6 days. In Malays there was a higher risk of AS at 40+6 days. In Malays there was a higher risk of AS when induced at 40+3 and 41+3 days (Crude OR 1.38 (1.20, 1.58) P <0.001) at 41+2 days and beyond 41+3 days (Crude OR 1.38 (1.20, 1.58) P <0.001). There was no statistical significance among ethnicity and AS at 7 at 5 min and timing of induction. Among Malays and Chinese no statistical significance on macerated stillbirth rates. In Indians there were no cases captured.

Conclusions: From our analysis we did not see any correlation between ethnicity and timing of induction on maternal and fetal outcomes.

P0643
RESPECTFUL MATERNITY CARE IS QUALITY CARE: RESULTS FROM A STUDY IN ETHIOPIA

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Objectives: To assess clients’ experience of disrespect and abuse by health workers during their recent institutional child birth.

Method: The study was conducted as part of a wider evaluation to evaluate the effects of a quality improvement intervention, Standards-based Management and Recognition (SBM-R). The study design employed intervention and comparison health facilities. Eight health centers and three hospitals in intervention sites that initiated the quality intervention from 2011 were selected; similar numbers of facilities from comparison sites were also included. All sites were located in the same regions of Ethiopia. The study looked at health care worker skills in providing RMC using observation by a non-participant observer and client perceptions of RMC from a postnatal exit interview.

Results: Observation during labour and delivery showed higher level of competency in providing RMC in intervention areas. 88% of women observed were never left alone during labour, compared with 75% in the comparison. Allowing women their birth position of choice was significantly higher in intervention areas, 54% Vs. 20%. Allowing support person during labour was higher in intervention areas, 84% Vs. 74%. Client perceptions, varied and were not statistically significant. Overall, 37% of women in both sites reported they experienced at least one form of abuse and disrespect; 28% (27% in intervention Vs. 29% in comparison) felt that they were disrespected by providers.

Conclusions: RMC is becoming an aspect of standardized maternal and newborn care in Ethiopia and its inclusion needs to be an integral part of efforts to increase institutional delivery in a country with one of the lowest skilled birth attendant rates in Sub-Saharan Africa. While the study showed client perceptions of RMC and assessors observations are different, this could be attributed to their low expectations of RMC due to the normalization of disrespect and abuse.

P0644
WHO’S SAFE-CHILDBIRTH CHECKLIST (SCC): A POTENTIAL SOLUTION FOR IMPROVING PROVIDER PERFORMANCE FOR ADHERENCE TO LIFE SAVING PRACTICES DURING THE INTRA- AND IMMEDIATE POSTPARTUM PERIOD

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Objectives: To assess the utilization of the SCC in the existing context of public health facilities of Rajasthan, India.

To assess the influence of the SCC in adherence to life-saving practices in the intra- and immediate postpartum period.

Methods: WDO developed the SCC to strengthen quality of care during intra- and immediate postpartum period. Jhpiego, together with Government of Rajasthan, India, adapted the SCC to Indian context and implemented a program to use the SCC in >100 facilities in 7 districts of Rajasthan, catering to a population of >15 million. The providers were oriented on the use of SCC and supported by onsite visits to institutionalize the use of SCC. Scalability and implementation through the system, with minimal incremental inputs, were the cornerstones of the programmatic approach. Structured recording of practices was undertaken to measure the adherence to practices.

Results: SCC was used for at least single pause point in >75% deliveries. Initial assessment of clients by recording of maternal BP and Temperature at time of admission improved from 50% and 7% at baseline to >90% after introduction of SCC. Use of Oxytocin for AMTSL and appropriate management of Severe Pre-Eclampsia/Eclampsia improved from 73% and 9% at baseline to >90% after introduction of SCC. Essential newborn interventions like recording of neonatal temperature and respiratory rate within one hour of birth improved from <10% at baseline to >90% However, practices at the point of discharge did not improve as dramatically.

Conclusions: The SCC can be institutionalized in the public health facilities in the Indian context by a programmatic approach that focuses on implementation through the system and utilization of minimal incremental resources towards ensuring scalability and sustainability of the utilization of SCC. The SCC has also been effective in
improving adherence to essential life-saving practices especially at the time of admission and during and just after childbirth. SCC has the potential to strengthen quality of care in labour rooms by acting as a framework for action for improving adherence to essential practices during intra- and immediate post-partum period.

**P0645**

**STUDY OF THE ASSOCIATION BETWEEN PRIMARY DYSMENORRHEA AND PRETERM LABOR**

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**Objectives:** Little is known about the mechanism and biochemical pathway of preterm delivery. Since some drugs used to treat preterm labor are also useful for the treatment of primary dysmenorrhea so this study attempted to evaluate the association between primary dysmenorrhea and preterm delivery. If the association is statistically significant, primary dysmenorrhea should be regarded as a risk factor for preterm delivery.

**Method:** A case-control study of 160 women with idiopathic preterm delivery as case group and 160 women with term delivery as controls was done in the women who referred to obstetric clinic of Imam Reza hospital in 1387. Both groups were healthy, singleton and without obstetric problems. Demographic information, history of primary dysmenorrhea and history of previous preterm labor were recorded in questionnaire and statistical data were analyzed by t-test, chi square test, Mann-Whitney test and logistic regression test by using SPSS software version 15.

**Results:** Rate history of primary dysmenorrhea in women with preterm labor was greater and had significant difference with control group. Gravid women with a history of primary dysmenorrhea had 3.5-fold increased risk of preterm delivery in comparison with those without a history of primary dysmenorrhea (p=0.005). So in subgroup analysis, gravid women with a history of severe primary dysmenorrhea had 5.5-fold increased risk of spontaneous preterm delivery (p=0.000) while gravid women with moderate primary dysmenorrhea had 2.6-fold increased risk of spontaneous preterm delivery (p=0.001).

**Conclusions:** Primary dysmenorrhea is associated with an increased risk of spontaneous preterm delivery. A common pathophysiologic pathway may exist between these two disorders.

**P0646**

**EVALUATION OF SUBLINGUAL MISOPROSTOL FOR INDUCTION OF LABOR AT TERM**

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**Objectives:** To compare sublingual and oral misoprostol for induction of labor.

**Method:** This was an open, prospective, randomized, non-placebo controlled trial at a tertiary care center in India. Patients with singleton term pregnancy fulfilling the inclusion criteria were randomly divided into two groups. Group A included 80 patients induced with 50μg sublingual and Group B included 80 patients induced with 50μg oral misoprostol. The two groups were compared in terms of primary outcomes i.e vaginal delivery with in 24 hours of start of induction and induction-delivery interval and secondary outcomes i.e number of doses needed, failed induction, cesarean section, postpartum hemorrhage and perinatal outcome.

**Results:** Both Primary and Secondary outcomes were better in sublingual as compared to oral group.

**Conclusions:** Sublingual route seems to be more effective method of induction of labor as compared to oral route.

**P0647**

**COMPARISONS BETWEEN EPIDEMIOLOGICAL PROFILES OF CAESAREAN SECTIONS AND VAGINAL BIRTHS IN BRAZIL, UNITED STATES AND CANADA, BETWEEN 2000 AND 2013**

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**Objectives:** To perform a search in the literature about the number of caesarean sections and vaginal deliveries in Brazil, United States and Canada from 2000 to 2013, trying to correlate the statistical data as well as the indications and complications of cesarean sections.

**Method:** MEDLINE/PubMed, Lilacs/SciELO, Cochrane library and Scopus databases were consulted in search of national and international articles and the best scientific evidence available for the years of this study, along with access to the government statistics in DATA-SUS (Brazil), CDC (USA) and CIHI (Canada), which were classified according to their level and degree of recommendation. The descriptors “cesarean section”, “vaginal delivery” and “labor” were used.

**Results:** It was observed that the cesarean rates in Brazil, USA and Canada were 37.7%, 22.7% and 20.9% in 2000, increasing to 56.6%, 32.6% and 26.9% in 2013, respectively, which demonstrate higher values than those recommended by WHO (15%). It is known that the reasons for cesarean section indications in Brazil, besides those commonly internationally cited are the patient’s cultural-social history, in addition to medical management. Thus, it was found that, regardless the reporting country, numbers are above the recommended values, and therefore, countless complications are related to this procedure and tend to become more prevalent with increased of c-section.

**Conclusions:** It can be concluded that all of the above mentioned countries now have values higher than those recommended by WHO as for the rate of cesarean sections performed. However, Brazil has a higher disparity when compared to the others regarding this surgical procedure. Once this increase is attributed to the type of medicine practiced in the country, the patient’s history, and also to public health issues, it is believed that in whatever country, it is necessary to implement surgical birth control policies, as this procedure may involve risks in the short, medium and long term to the mother and child.

**P0648**

**ADVANCED PRIMARY ABDOMINAL PREGNANCY – A CASE REPORT**

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**Introduction:** Abdominal pregnancy is extremely rare comprising only 4% of ectopic pregnancies. Most of the abdominal pregnancies are secondary and primary abdominal pregnancies are very rare. Advanced abdominal pregnancy refers to the situation where the pregnancies continues beyond 20 weeks of gestation. Only 24 cases had been reported by 2007. Only few cases of live birth have been reported. Here we are presenting a case of 34 plus weeks of primary abdominal pregnancy which was diagnosed per operatively and it was confirmed by Studdiford’s criteria.

**Case report:** A second gravid lady was admitted in Sylhet M A G Osmani College Hospital with acute abdomen. The patient was ill looking, hypertensive, contour of the uterus could not be delineated properly; fetal heart sound and fetal movement was present. P/V examination revealed cervix was high up and posterior fornix was bulged and boggy like feeling. Ultrasonography stated 34 plus weeks live intrauterine pregnancy. As the patient pain was gradually increasing laparotomy was done.

**Results:** A baby was found in the abdominal cavity surrounded by sac and living baby was delivered. Placenta was found attached to the omentum, gut, and partly to the posterior wall of the uterus which extended to the Pouch of Douglas. The uterus was found in the pelvic
cavity just bulky in size and both the tubes and ovaries were normal. There was no uteroperitoneal fistula. Then placenta was partially removed from the posterior wall of the uterus but the main bulk of the placenta was kept insitu with the ligature of the umbilical cord. A course of Methotrexate was given.

Conclusions: Abdominal pregnancy carries a serious form of maternal mortality and morbidity. Careful Ultrasonography in early weeks of pregnancy can diagnose the abdominal pregnancy. In our case the patient had no antenatal check up and no ultrasonography done in the early weeks of pregnancy. Continuation of pregnancy can be carried up to term with good antenatal care and live baby can be delivered through planned laparotomy.

Method:
The study was conducted at Liverpool Women's Hospital in the UK. Participants (20 obstetricians with previous experience of BMC, and 22 midwives who had not done BMC before) were randomly allocated to conduct two forms of uterine compression for 5 minutes on the mannequin model: bimanually and using the PPH Butterfly. The mannequin (Noelle, Gaumard Ltd) was supplied with an “atonic uterus”, modified to allow BMC and to include a pressure sensor. This assessed the amount of intrauterine pressure produced by the participants' compression. After regulatory approvals, the device was tested in first healthy and then bleeding postpartum women.

Results:
Users found the PPH Butterfly device easy to use and acceptable. There was huge inter-personal variation in the amount of pressure generated, but no significant difference between the two techniques or groups of users. With both methods, intrauterine pressures declined over the 5 minutes of use. Initial clinical findings from its use in health and bleeding postnatal women will be presented at the conference.

Conclusions:

P0649

INDUCTION OF LABOUR IN PRE-ECLOMPTIC WOMEN: A RANDOMISED TRIAL COMPARING THE FOLEY BALLOON CATHETER WITH ORAL MISOPROSTOL

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Objectives: Between 40,000 and 80,000 pregnant women die annually from pre-eclampsia and eclampsia. Magnesium sulphate and anti-hypertensive therapies reduce the morbidity and mortality associated with pre-eclampsia, but the only cure comes with delivery. Prompt delivery of the baby, preferably vaginally, is vital in order to achieve good maternal and neonatal outcomes. Induction of labour is therefore a critical intervention in order to prevent morbidity to both mother and baby. Two low cost interventions – oral misoprostol tablets and transcervical Foley catheterization – are already used by some in low resource settings, but their relative risks and benefits are not known.

Method:
A total of 602 women with an ongoing pregnancy and live fetus requiring delivery because of pre-eclampsia or uncontrolled hypertension were randomly assigned to labour induction with a transcervical Foley catheter or oral misoprostol. Women were recruited at two hospitals in Nagpur, India. The misoprostol group received oral misoprostol 25 micrograms every 2 hours (maximum of 12 doses). The Foley group underwent induction using a Foley catheter (size 18 F with 30 ml balloon), which remained until active labour started, the Foley catheter fell out, or 12 hours elapsed. The primary outcome was vaginal delivery within 24 hours.

Results:
Recruitment started in December 2013 and is on course to finish in June 2015. Results will be presented publically for the first time at FIGO 2015.

P0650

THE PPH BUTTERFLY: INITIAL TESTING OF A NEW DEVICE TO FACILITATE BIMANUAL UTERINE COMPRESSION

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Objectives: Postpartum haemorrhage (PPH) remains a major cause of maternal mortality; simple, low-cost, non-pharmacological therapies are urgently needed. Bimanual uterine compression (BMC) is an effective procedure to treat atonic PPH, but is both painful and intrusive. The PPH Butterfly is a new device designed to make uterine compression much less invasive. This will expand access to PPH therapies and provide “surgical treatment” at an early stage in the PPH process.

This study compared the uterine pressures generated by the device and by standard BMC in a mannequin model. The device was then tested in both healthy and bleeding postnatal women.

Method:
The device was easy to use and accept-able. There was huge inter-personal variation in the amount of pressure generated, but no significant difference between the two techniques or groups of users. With both methods, intrauterine pressures declined over the 5 minutes of use. Initial clinical findings from its use in health and bleeding postnatal women will be presented at the conference.

Conclusions:

P0651

THE ROLE OF RECOMBINANT FACTOR VIIA IN OBSTETRIC HEMORRHAGE: CASE SERIES AND REVIEW OF LITERATURE

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Objectives: Postpartum hemorrhage remains a life-threatening complication and is a leading obstetric cause of maternal mortality worldwide. We present 5 cases of massive postpartum hemorrhage treated with recombinant factor VIIa. The response of these 5 patients is discussed along with review of literature.

Method:
During a period from 2012 to 2014, at the territory of Saint Anna Hospital, we used recombinant factor VIIa in the treatment of 5 women with severe primary postpartum hemorrhage.

Results:
Four of five women treated with recombinant factor VIIa underwent postpartum hysterection before its administration. In only one patient we managed to control the bleeding with two bolus applications of recombinant factor VIIa and the need of hysterectomy was avoided. In all 5 cases there was a good response to recombinant factor VIIa administration. No thrombo-embolic episodes or other side effects to the drug were noted during the follow-up period.

Conclusions: The observed effect of recombinant factor VIIa in our patients was positive. The lack of randomized, controlled trials limits the use of recombinant factor VIIa in cases of severe obstetric hemorrhage. Its use at an earlier stage in these cases may avoid the need of hysterectomy, thus preserving fertility.

P0652

AMNIOTIC FLUID EMBOLISM: A CASE REPORT

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Objectives: Amniotic fluid embolism (AFE) is a rare complication of pregnancy and labor with a variable presentation ranging from cardiac arrest and death through to mild degrees of organ system dysfunction with or without coagulopathy.

Method:
A 27-year old gravida 3 para 2 at 40 wk gestation was admitted for labor. During the first stage of labor after full dilatation of the cervix the patient suddenly collapsed. The immediate cardiopulmonary resuscitation restored the hemodynamics of the patient and it was proceeded to emergency Caesarean section. The intrapartum uterine haemorrhage and hypotension necessitated a supravagi-
nal hysterectomy. Promptly after admission to the intensive care unit the patient developed disseminated intravascular coagulation, which was medicamentously treated with intravenous bolus application of recombinant factor VIIa.

**Results:** Early diagnosis, aggressive resuscitation, correction of coagulopathy and prompt Caesarean section resulted in favourable maternal and fetal outcome.

**Conclusions:** The diagnosis is essentially one of exclusion based on clinical presentation. AFE was thought to induce cardiovascular collapse by mechanical obstruction of the pulmonary circulation. The latest theories suggest anaphylactic mechanism of the condition. The maternal mortality approaches 80%.

**P0653**

**RISK FACTORS FOR COMPLETE RUPTURE IN SCARRED UTERUS AFTER TRIAL OF LABOR**

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**Objectives:** Although very rare, uterine rupture is known to increase in scarred uteri. As cesarean section (CS) is increasing worldwide, uterine rupture is expected to increase after trial of labor. Norway has a high rate of trial of labor (TOL) in mothers with scarred uteri, around 73%, measured over 40 years, and 65% in the last 10 years, respectively. The aim of this study was to identify the risk factors for complete uterine rupture in scarred uteri, by studying a validated sample of mothers who gave birth in the period 1967–2008.

**Method:** This was a retrospective population-based study, using data from the Medical Birth Registry of Norway and the Patient Administration System in maternity units. All case records of mothers identified with uterine ruptures were studied and validated.

Population: 78,616 mothers with scarred uteri (57,859 having TOL), representing 67% of total pregnant population with scarred uteri in Norway (1967–2008).

**Main Outcome Measure:** Complete uterine rupture. Explanatory variables: Demographic, pregnancy and labor risk factors.

**Multivariable logistic regression was used to measure the adjusted odds ratios AORs with 95% confidence intervals (CI) for complete uterine rupture in scarred uteri after TOL.**

**Results:** There were 137 ruptures (1.7/1000), where 122 after TOL (2.1/1000), and 15 at pre-labor CS (0.7/1000). Adjusted OR with 95% CI for risk factors for ruptures after TOL were: Maternal age ≥35 (1.54; 1.1–2.3), Mothers from Horn of Africa versus European (5.11; 1.54–16.8), Previous miscarriages (4.94; 3.4–7.4), Birth weight ≥4000 g (2.00; 1.3–2.9), Gestational age ≥41 weeks versus 37–40 weeks (1.54; 1–2.2), Induced labor (2.22; 1.5–3.2); Induction methods versus spontaneous labor: Prostaglandins (2.77; 1.6–4.6), Oxytocin (2.68; 1.4–4.9), Combination Prostaglandins/Oxytocin (18.45 (9.9–34.2), Mechanical induction (0.30; 0.07–1.2), and Augmentation of labor with oxytocin (4.49; 3.0–6.6).

**Conclusions:** The rate of complete uterine rupture after TOL in scarred uteri is low in Norway. Most important risk factors are related to our obstetric interventions as induction of labor with combination Prostaglandins/Oxytocin, and augmentation of labor. Mothers with previous miscarriages and women from Horn of Africa are high risk groups that need extra vigilance. We should use mechanical induction like intracervical balloon catheter more often, as mechanical induction carries the least risk of uterine rupture among induction methods. Guidelines for management of labor should be updated regarding common excessive use of induction and oxytocin during labor.

**P0654**

**RISK FACTORS FOR CESAREAN DELIVERY IN PRIMIPAROUS WOMEN**

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**Objectives:** To describe the risk factors associated with the indication of first cesarean section in primiparous women.

**Method:** The present cohort study was conducted from August 2008 to July 2009 on 800 primiparous women with a single, intrauterine, cephalic pregnancy admitted in Instituto de Medicina Professor Fernando Figueira (IMIP)- Brazil and who consented to participate. The main indications for cesarean section were described and association of maternal age, prenatal care, presence of ruptured membranes at admission, BMI, labor induction, use of partograph, shift when the delivery occurred, information on modes of delivery during prenatal care and the risks of cesarean delivery were evaluated using bivariate tests and logistic regression analysis.

**Results:** Cesarean section was performed in 234 (29.3%) of 800 included women. Bivariate analysis showed significant association of cesarean delivery with labor induction, misoprostol use, concomitant complications, short stature and elevated BMI; however, use of partograph decreased this risk. No association was found between risk of cesarean section and maternal age, shift of delivery, information on modes of delivery, frequency of prenatal appointments, weight gain, ruptured membranes at admission, oxytocin use, presence of abortion or conduction of labor. After multiple logistic regression, short stature (<160cm) (OR: 1.99; 95% CI: 1.43–2.77; p=0.0000), BMI (>30kg/m²) (OR: 1.77; 95% CI: 1.26–2.49; p=0.0009), concomitant complications (OR: 2.32; 95% CI: 1.65–3.25; p<0.0000) and not to use partograph (OR: 2.60; 95% CI: 1.86–3.65; p=0.0000) remained significant predictors of cesarean delivery.

**Conclusions:** Obese women and those who required induction of labor had an increased risk for cesarean section. Conversely, the use of partograph diminished the risk of such route of delivery. These results stress the importance of the partograph not only as a tool to guide appropriate interventions, but also to prevent some unnecessary one during labor.

**P0655**

**DOES THE ALGORITHM “HEMOSTASIS” AID SYSTEMATIC MANAGEMENT OF SEVERE POSTPARTUM HAEMORRHAGE (>2 L) FOLLOWING SPONTANEOUS AND OPERATIVE VAGINAL DELIVERY?**

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**Objectives:** To evaluate the effectiveness of the algorithm “HEMOSTASIS” (call for help; establish etiology & echolics; massage the uterus; oxytocin infusion and prostaglandins; shift to operating theatre; tranexamic acid & tamponade test; apply compression sutures; systematic pelvic devascularization; interventional radiology; subtotal/total abdominal hysterectomy) in the management of severe postpartum hemorrhage (>2 L) (PPH) after vaginal delivery (VD).

**Method:** A retrospective analysis was performed on women (63) who experienced severe primary PPH with an estimated blood loss (EBL) ≥2 L following a spontaneous or operative vaginal delivery between 2012 and 2013 at St George’s University Hospitals NHS Foundation Trust, London, UK. The success of the HEMOSTASIS mnemonic in PPH management was determined by assessing clinical outcomes following adherence to the protocol. The type of intervention needed to achieve hemostasis, the use of blood products, the need for a laparotomy or peripartum hysterectomy and admission to intensive care unit (ICU) were assessed.

**Results:** Incidence of massive PPH (2411±640 mls) was 0.62%. Addi-
tional oxytocics ("O") were used in 95.2% of cases leading to complete haemostasis in 16 (25.4%). Ergometrine was used in 19 (30.2%), prostaglandins (carboprost and misoprostol) in 17 (27.0%) and 20 (31.7%) and tranexamic acid in 7 cases (11.1%).

31 (49.2%) were moved (Shift, "S") to the theatre and in 38 cases (60.3%) haemostasis was achieved with additional suture of tears and 9 (14.3%) required a tamponade ("T"). None needed application of compression suture ("A"), systematic devascularization ("S") or subtotal/total hysterectomy ("S").

46 patients (73%) needed blood products and 3 (4.7%) required admission to ICU. There were no maternal deaths.

Conclusions: Our analysis illustrates that the management algorithm “HEMOSTASIS” helps avoid severe maternal morbidity including the need laparotomy and peripartum hysterectomy, admission to ITU as well as maternal deaths. Use of oxytocics alone achieved haemostasis in only 25.4% of cases and 60.3% had co-existing genital tract trauma.

P0656
DOES OBSTETRICS SHOCK INDEX (OSI) PREDICT HAEMOGLOBIN DROP, NEED OF BLOOD TRANSFUSIONS AND LENGTH OF HOSPITAL ADMISSION IN SEVERE POST-PARTUM HAEMORRHAGE AFTER SPONTANEOUS AND OPERATIVE VAGINAL DELIVERY?
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Objectives: To determine whether the obstetric shock index (OSI) > 1.1 predicts the need for haemoglobin drop, need of blood transfusions and length of hospital admission in severe post-partum hemorrhage after spontaneous and operative vaginal delivery (VD).

Method: A retrospective analysis was performed on women (63) who experienced severe primary PPH (blood loss ≥ 2 L) after spontaneous or operative VD between 2012 and 2013 at St George’s Hospital, London, UK.

The OSI (pulse rate divided by the systolic blood pressure) was calculated and interval from bleeding to action, changes in hemoglobin concentration, number of transfusions and number of days of admission were assessed.

Results: 34 patients (50%) had a SVD, 22 (30%) had a forceps delivery and 7 (10%) had a ventouse delivery. In women who had OSI > 1.1, mean interval from bleeding to action (administration of drugs) was 19.2 (±26.8) and the time taken to transfer to the operating theatre was 44.4 minutes (±37). There was a mean fall in hemoglobin concentration of 3.36 (±1.63) which required blood transfusion (mean 2.23 units ±0.63) as well as transfusion of platelets (mean 1.33 units ±0.5) and fresh frozen plasma (mean 3.23±1.1). Mean duration of admission to high dependence unit after delivery was 1.68 (±0.76) days and the average total admission was 3.2 (±1.05) days.

Conclusions: Obstetric Shock Index (OSI) of > 1.1 after birth appears to be associated with approximately 30% fall in haemoglobin concentration and requirement of blood and blood products. In addition, it is associated with a mean duration of hospital stay of 3 days. Therefore, OSI (pulse rate divided by systolic blood pressure) of > 1.1 may be a useful adjunct in the management of massive postpartum haemorrhage as it is associated with a significant fall in haemoglobin concentration and the need for blood transfusion.

P0657
RELATIONSHIPS BETWEEN SHOE SIZE AND OTHER ANTHROPOMETRIC VARIABLES AMONG WOMEN WHO HAD NORMAL LABOUR IN ABAKALIKI, SOUTH-EAST NIGERIA
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Objectives: Normal labour and delivery are products of a dynamic interplay of three factors - passage, passanger and powers. Maternal pelvic capacity is an important determinant of labour duration and outcome. Relationship between maternal pelvis and shoe size has been documented.

To assess the relationships between shoe size and other anthropometric variables among women who had normal labour.

Method: A prospective cross-sectional study to assess the shoe size and other anthropometric variables of 307 women who had normal labour at Mile Four Hospital Abakaliki, Ebonyi State. Information on sociodemographic characteristics was obtained. Shoe sizes of the subjects were measured using the Genuine Brannock Device (calibrated for UK footwear). Other anthropometric variables such as shoe size, height, weight, waist circumference and chest circumference were obtained. The relationships between shoe size and the variables were assessed using linear regression models. A P-value of <0.05 was considered significant.

Results: The mean age of the subjects was 27.7 ±3.7 years. The mean height of the subjects was 1.58±0.35 m. The mean weight of the subjects was 65.37±10.31 kg. The mean waist circumference of the subjects was 37.19±3.34 cm. The mean chest circumference of the subjects was 37.75±3.10 cm. The mean shoe size of the subjects was 7.86±1.26. There was a positive correlation between height and shoe size (r=0.02, P=0.014457), weight and shoe size (r=0.14, P<0.000001), waist circumference and shoe size (r=0.11, P<0.000001) and chest circumference and shoe size (r=0.07, P=0.000002).

Conclusions: This study shows that among women who had normal labour, height, weight, chest circumference and waist circumference all have a positive correlation with shoe size.

P0658
TRAINING FOR EMERGENCY OBSTETRICAL CARE ACROSS THE WORLD: THE ALARM INTERNATIONAL PROGRAM
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Objectives: 1. To learn about the objectives of the Advances in Labour and Risk Management International Program (AIP). 2. To explore the highlights of the AIP Program. 3. To define potential impact/outcomes of the AIP Program.

Method: The Society of Obstetricians and Gynaecologists of Canada’s ALARM International Program (AIP) is a tool to reduce maternal death/injury in low resource countries. The 5-day program targets health professionals, reviews maternal killers and suggests tools/problem management to improve care for mothers/newborns. AIP was developed with an emphasis on sexual and reproductive rights; Discussions of women’s reproductive and sexual health as an issue of social justice occur alongside hands-on practice of clinical procedures. By sensitizing participants to social, economic, cultural, and legal factors that limit women’s access to quality care, AIP promotes women’s sexual and reproductive health in a comprehensive way.

Results: The AIP has been implemented across the world: Bangladesh, Benin, Burkina Faso, Democratic Republic of Congo, Ethiopia, Gabon, Guatemala, Guyana, Haiti, India, Indonesia, Kenya, Kurdistan, Kosovo, Mali, Mexico, Morocco, Peru, Philippines, Senegal, Tanzania, Uganda, Ukraine, Venezuela, Zambia, Zimbabwe and Yemen. Data show that hospital-based maternal mortality decreased by 15% in Mali and Senegal over a 2-yr period. Specifically, there was a decrease in deaths related to haemorrhage, pre-eclampsia/eclampsia.
DECREASE LENGTH OF HOSPITAL STAY
IMPLEMENTATION OF A CESAREAN BIRTH CHECKLIST MAY

Conclusions: The ALARM Canada course provides gold-standard training based on the most current best practice. Innovative training methods are being explored to further improve ALARM’s accessibility and impact. High quality obstetrical care is a cornerstone to improving maternal fetal outcomes.

P0660
IMPLEMENTATION OF A CESAREAN BIRTH CHECKLIST MAY IMPROVE HEALTHCARE PROVIDERS’ PERFORMANCE AND DECREASE LENGTH OF HOSPITAL STAY

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Objectives: The objective of the current study was to create, implement and evaluate the effectiveness of a cesarean birth checklist on maternal and neonatal outcomes on the maternity ward of a rural African hospital.

Method: Using input from local authorities, the World Health Organization’s Safe Surgical Checklist was modified for cesarean birth and adapted for use on a rural Rwandan maternity ward. Two weeks post-implementation, modifiable systems-level barriers to use were determined and addressed within one month. Retrospective chart review was completed for 200 patients who underwent cesarean birth. Maternal and neonatal outcomes of the first 100 patients who underwent cesarean births after checklist implementation were compared with the last 100 patients who underwent cesarean births before checklist implementation. Healthcare provider checklist utilization rates were determined and degree of completeness assessed.

Results: Checklist utilization rate amongst providers was 83%. Fifty-seven percent of checklists were complete; 26% of checklists were partially complete. Checklist utilization was associated with significant increases in documentation of estimated blood loss (91.6% vs. 0.9%, p < 0.0001) and antibiotic administration before incision (96.4% vs. 30.8%, p < 0.0001). Checklist utilization was also associated with fewer patients being hospitalized longer than the standard 4 days after cesarean births (19.3% vs. 69.8%, p < 0.0001). There were no significant differences in rates of maternal complications (14.5% vs. 14.5%, p < 0.09), neonatal complications (10.8% vs. 6.8%, p < 0.31) or NICU admissions (2.4% vs. 5.1%, p < 0.47) with or without checklists respectively.

Conclusions: A cesarean birth checklist that is adapted and implemented using a culturally and resource specific strategy can result in high utilization rates and improve performance of key best practices by healthcare providers. Specifically, we have shown that cesarean birth checklists can greatly improve antibiotic administration prior to incision, which is known to decrease rates of endometritis and other post-operative complications. Length of hospital stay may also be reduced by utilizing cesarean birth checklists. Larger studies are needed to assess impact on the incidence of other maternal and neonatal outcomes.

P0661
CHARACTERISTICS OF BIRTH ATTENDANCE AND DELIVERY PRACTICES AT HOSPITAL-BASED VAGINAL DELIVERIES IN WESTERN KENYA

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Objectives: To characterize the frequency of evidence-based practices, respectful communication, and teamwork practiced by providers during normal vaginal deliveries at a large referral hospital in Western Kenya.

Method: To characterize the frequency of evidence-based practices, respectful communication, and teamwork practiced by providers during normal vaginal deliveries at a large referral hospital in Western Kenya.

Results: A total of 75 normal vaginal deliveries were observed. Births were primarily attended by nursing students of differing levels. The average number of evidence-based delivery practices was 3.6 (SD=1.0) out of 6 total observed (3 maternal, 3 neonatal), which rose to a mean of 4.5 for trainees undergoing assessment by a clinical educator. A team size of 3 or more people was negatively associated with performing all three evidence-based maternal delivery practices. OR 0.29 (95% CI: 0.08-0.95). Larger delivery teams also provided less respectful maternity care (p=0.002) based on a respectful care score.

Conclusions: Low rates of evidence-based practices and patient-centered care existed in this teaching hospital in Kenya, which may serve as a deterrent for women to seek care at facilities. These findings emphasize the need for a global approach to improving quality of care to achieve continuing successes in maternal and newborn health.
P0662
DETERMINANTS OF EMERGENCY CAESAREANS IN MIGRANT WOMEN IN MONTREAL, CANADA

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Objectives: To identify determinants of emergency caesareans in low-risk migrant women from Low and Middle Income Countries (LMICs) giving birth in Montreal, Canada.

Method: Using a case-cohort design, migrant women from LMICs, and in Canada <8 years were recruited from the postpartum units of three Montreal hospitals. Data were collected from the medical record and by interview-administration of the Migrant-Friendly Maternity Care questionnaire (available in 8 languages) while still in hospital. All low risk women (singleton, term, and vertex pregnancies) who delivered by emergency caesarean (cases) or vaginally (controls) were selected from the cohort; emergency caesareans due to placental complications, pre-eclampsia, HIV, IUGR, chorioamnionitis, prolapsed cord or failed forceps were excluded. Multi-variable logistic regression was used to identify determinants of emergency caesarean.

Results: The final sample included 233 cases and 1615 controls. Preliminary results show migrant women to have a higher odds of emergency caesarean if they were: 35 years or older, OR=2.4 [95% CI: 1.7–3.4]; were primiparous, OR=5.5 [95% CI: 3.8–7.8]; were overweight or obese (BMI 25 or more), OR=1.7 [95% CI: 1.2–2.3]; from Sub-Saharan Africa or the Caribbean (versus Eastern Europe), OR=2.7 [95% CI: 1.2–5.9]; or from South Asia, OR=2.4 [95% CI: 1.0–5.6]; “were asked to do something they did not want to do during pregnancy, labour or birth”, OR=1.8 [95% CI: 0.98–3.4]; and “overall were only sometimes, rarely or never happy with their care during labour and birth”, OR=2.6 [95% CI: 1.6–4.2].

Conclusions: Among low-risk migrant women, non-bio-medical factors, including how care is delivered during pregnancy and labour and birth might have an impact on their risk of having an emergency caesarean.

P0663
TRIPPING OF THE DELIVERY LABOR ON UTERINE SCAR IN A DEVELOPING COUNTRY: RESULTS OF A SERIES OF 118 CASES AT THE UNIVERSITY HOSPITAL MOTHER AND CHILD IN COTONOU, BENIN

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Objectives: The rate of cesarean delivery is increasing, and one of its main indications is scarred uterus. Based on the results of studies carried out in the world, several scientific societies recommend as much as possible vaginal delivery even on scarred uterus. Therefore with a good selection of pregnant women, the triggering off on scarred uterus is a reality since 2009 to University Hospital Mother and Child in Cotonou. Objective: to evaluate the prognosis of labor induction on scarred uterus.

Method: It was a descriptive and analytical study, over 5 years from 1st January 2009 to 31 December 2013. Are included in this study parturient carriers of the united mothers who underwent induction of labor, without cervical ripening. For the selection of patients we used an oxytocin infusion score.

Results: The frequency of labor induction on scarred uterus in chupmel of Cotonou was 7.39%. acute fetal distress was the main indication for cesarean anterior (41.90%). he birth interval was superior to 12 months in 98.02% of cases. The rate of vaginal delivery was 94.29%. The most common maternal morbidity at chup-mel were dehiscence of the old scar discovered during systematic uterus revision on 0.95%. The Apgar score in the 1st minute was good in 95.52% of cases.

Conclusions: Induction of labor with scarred uterus is possible in under developed countries, with a rate of success neighboring to those of developed.

P0664
THE RETROSPECTIVE EVALUATION OF PROLONGED LABOR USING THE WORLD HEALTH ORGANIZATION PARTOGRAPH IN AN ACADEMIC CENTER IN THE USA

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Objectives: The purpose of this study was to evaluate the progress of labor of women who underwent a primary cesarean delivery (PCD) for labor abnormalities using the WHO partograph to determine if those abnormalities are under or over-diagnosed and evaluate the timeliness of the decision to proceed with a PCD.

Method: Retrospective cohort study of women carrying singleton pregnancies >34 weeks who underwent PCD’s for “failure to progress”, arrest of dilatation and/or descent and failure to descend. Labor progress was plotted “a posteriori” using the WHO partograph. Women with and without PO complications were compared on demographic characteristics, comorbidities, obstetric complications and partograph characteristics. RR’s and 95 CI’s were calculated for adverse maternal outcomes and time in labor. A p value of <0.05 was considered significant.

Results: 199 women who had PCD’s at Memorial Hermann Hospital in Houston (TX) between 03/01/2012 and 04/25/2013 were included. 97% were operated during the 1st stage and 31.6% of them when the cervix was <6 cm dilated. Postoperative complications were observed in 30.5% (61/199); the most common were IP/PP hemorrhage (20.5%), transfusion (11.5%) and chorioamnionitis (11%). PP complications were more common in women with previous comorbidities (p=0.047). The risk of complications increased significantly when labor crossed the action line for 6 hours (RR: 3.45; 95 CI: 2.1–5.6). 36 women (18%) underwent a PCD before or at the action line.

Conclusions: The implementation of the WHO partograph in the management of labor in the USA could be an adequate tool for the evaluation of cervical dilatation during labor. Its implementation has the theoretical potential of reducing at least 18% of CD’s performed for failure to progress in an academic center in the US.

P0665
STUDY OF THE RISK FACTORS, MANAGEMENT AND OUTCOMES OF CASES OF MASSIVE POSTPARTUM HAEMORRHAGE 2014

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Objectives: 1) To evaluate the management of post-partum haemorrhage (PPH) in a district general hospital, based on the established hospital and Royal College of Obstetricians and Gynaecologists (RCOG) guidelines. 2) To assess the associated risk factors and sequelae 3) To produce recommendations based on the study findings that improve outcomes and minimise the occurrence and morbidity associated with PPH.

Method: A retrospective review of cases of massive PPH was carried out over a one-year period with the inclusion criterion of blood loss of 2000ml or more in the puerperium. Cases matching this parameter
were identified using Cionia Maternity information System (CMiS) “Quick Query” menu. Patient demographics, risk factors, interventions and outcomes were also assessed antenatally, intrapartum and postnatally using case notes, hospital PHP proformas, and Electronic Patient Record. Data obtained was analysed using Microsoft Excel.

Results: 44 cases of massive PPH were identified. Median blood loss was 2000–2500mL. Majority of patients were over 30 years (56.4%), primiparous (52.27%), and of White-British (45.45%) origin. Induction of labour (50%), anaemia (25%) and previous Caesarians (16%) contributed antenatally. Intrapartum risks - prolonged labour (16%), antepartum haemorrhage (7%), and prolonged syntocinon infusions (2%) were related with massive PPH. 45% of cases were delivered by Caesarean section, 22% by assisted delivery, 32% were spontaneous vaginal deliveries (SVD). Uterine tone and perineal trauma accounted for 57% of cases. 72% required blood products, (11%) transferred to Intensive Care, and two (5%) required hysterectomies.

Conclusions: Majority of PPH patients, being White-British, was not reflective of the hospital’s catchment population. BMI did not significantly increase the risk of massive PPH. Intervention remains a significant contributory factor to massive PPH. Massive PPH was also associated more with operative or assisted deliveries. Prompt identification of “at-risk” patients, may reduce the morbidity and mortality associated with massive PPH. Regular re-training of staff on “Massive PPH protocol” and multi-disciplinary team involvement may also improve outcomes. Regular studies such as this, promotes a neutral and blame-free mode of assessing cases of massive PPH. This may improve outcomes and prevent massive PPH altogether.

Management of Infertility

P0666

COMPARE TWO GROUPS OF COMBINATION DRUGS IN INDUCTION OVULATION WITH FAVORABLE RESULTS

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Objectives: Avonulation disorders cause 30 to 40 percent of infertility cases. The cost of infertility treatment is expensive. Since 1996 different clinical trials has been done but best results and least complications is still a big concern and studies still continues. Many studies reported that antioxidants such as vitamin E, vitamin C help to scavenge the oxygen radicals throughout the female reproductive tract that might improve the results of infertility treatment. The aim of this research is adjusted a regimen that is a combination of antioxidant and Ovulation induction drugs and evaluation of pregnancy outcome.

Method: This is a semi experimental clinical study which was done on 202 infertile women that referred to Dr.Rasekh clinic in Jahrom city during two years. Results are reported as number and percentage and the Chi-square test. All these patients were treated with regimen include letrozole+ tamoxifen +estrogen + vitamin E. Most of the women in this study was in range of 20–30 years old (63.4%). 24.8% of patients were case of PCO syndrome. Frequency of pregnancy was reported based on endometrial quality, endometrial thickness and follicular size. Data was analyzed by SPSS.

Results: At the end of the study 25.7% of patients treated with this regimen were pregnant. 44.6% of follicular sizes were more than 18 mm. 68.7% of patients had high quality of endometrium (triple layer & lucid). 71.6% of endometrial thickness were more than 8 mm. OHSS was 0.5% that 99% of them mild and 1% moderate.

Conclusions: Based on the results of this study, this regimen can improve the endometrial quality and thickness which are required for successful implantation of fetus in uterus. Also this regimen had acceptable effects on follicular size which is one of the basic steps in success of ovulation induction. Pregnancy was occurred in 1 woman between 4 infertile women. For evaluations of the results, this study must be done on numerous of infertile patients to achieve meaningful results. Another important factor; availability of drugs, low cost.

P0667

EFFECT OF PALM POLLEN ON SPERM PARAMETERS IN INFERTILE MEN AND PREGNANCY RATE

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Objectives: There are many ancient records of herbal medical plants. The phoenix dactylifera (palm pollen) is used in the traditional medicine for male infertility. The aim if this research is to determine the effects of palm pollen on sperm parameters of infertile men and pregnancy rate.

Method: In this clinical trial, 60 nonsmoker infertile men whose problem could not be solved surgically were enrolled. Wives of these infertile men are quite normal. These infertile men were treated by palm pollen for 2 months. 7 gram of palm pollen, was prescribed in form of capsule, 3 times a week during the study course. Semen analysis was done before and after the treatment and the results were compared. As well, reproductive outcome was assessed.

Results: The mean sperm count was 2.33±5.61×10⁶/mL at baseline and 22.03±12.17×10⁶/mL after the treatment period (P<0.05). The mean percentage of sperm progressive motility was 14.69±6.8% before the treatment which increased to 24.01±11.11% thereafter (P<0.05). No significant increase was detected in sperm with normal morphology. Pregnancy rate was 32% after improvement of semen parameters.

Conclusions: Palm pollen seems to improve the sperm count and motility in infertile men. Also, fertility outcome is satisfactory. We believe further studies on larger sample sizes are needed to elucidate the potential role and mechanism of action of palm Pollen in the treatment of male infertility.

P0668

OBESITY AND MALE INFERTILITY AT THE UNIVERSITY COLLEGE HOSPITAL IBADAN: A PRELIMINARY REVIEW

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Objectives: 1. To describe the sociodemographic characteristics of infertile male clients seen at the andrology unit of the University College Hospital, Ibadan. 2. To evaluate the relationship between body mass index and male infertility.

Method: A descriptive cross-sectional study of 54 consecutive male clients seen at the andrology unit between the 1st of January and 31st of March, 2014. Male clients were requested to abstain for at least 2 days and no more than 5 days.

Semen samples were analyzed within 30 minutes of collection. Data from the survey was analyzed using Statistical Package for Social Sciences (SPSS) version 15. Frequency distribution, Cross-tabulation, test of significance with chi-square and multivariate analysis were generated. Level of significance was set at p<0.05.

Results: Mean age of the clients was 37.80±6.60 years with an average sperm count of 33.94×10⁶/mL and an average BMI of 25.6±5.12. Risk factors were alcohol intake (22%), smoking (7%) and use of medications (15%). Erectile dysfunction was admitted by 8 clients (15%). Semen collection was majorly by coitus interruptus (90%). Tests for statistical significance did not show any relationship between se-
Results: A total of 154 samples, all of Ugandan males were analyzed. Seventy-one percent (94) had normal sperm counts, 16 (10.4%) had azoospermia, 37.7% had oligoasthenospermia, 22.5% (34.6) had asthenoteratozoospermia and 25.2% (39) had oligoasthenoteratozoospermia. Conclusions: Despite a high fertility rate in Uganda, male factor infertility seems to contribute to the problem of infertility among Ugandan individuals and couples.

P0669
SEMEN QUALITY IN UGANDAN COUPLES AND INDIVIDUALS ATTENDING A PRIVATE FERTILITY CLINIC IN A LOW RESOURCE SETTING
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Objectives: In 40% of involuntary childless couples male infertility is found concurrently with abnormal semen parameters. There have been several studies showing regional differences and a possibility of declining semen quality over the last 50 yrs. Most of the reports showing regional differences are from Western countries, despite the fact that Africa particularly Uganda, is the region with a high fertility rate. This article is a review aimed at informing our present knowledge regarding the current status of semen quality in men attending a fertility clinic because of the paucity of data due to limited publications from Africa.

Method: A retrospective descriptive study of semen analysis of Ugandan men attending a private clinic. Both as patients or spouses of patients. Data reviewed was over a two year period (2009–2011). Standard semen analysis of fresh unstained sperm using a phase contrast microscope had been done. A 100 μm deep haemocytometer counting chamber was used for the counts.

Results: A total of 154 samples, all of Ugandan males were analyzed. Seventy-one percent (94) had normal sperm counts, 16 (10.4%) had azoospermia, 37.7% had oligoasthenospermia, 22.5% (34.6) had asthenoteratozoospermia and 25.2% (39) had oligoasthenoteratozoospermia.

Conclusions: Despite a high fertility rate in Uganda, male factor infertility seems to contribute to the problem of infertility among Ugandan individuals and couples.

P0670
STRENGTHEN MANAGEMENT OF INFERTILITY BY PREVENTING REPEAT PREGNANCIES AMONGST ABORTION CLIENTS – EXPERIENCES FROM MARIE STOPES INTERNATIONAL VIETNAM
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Objectives: The objective is to prevent unintended pregnancies, particularly for women who do not want to be pregnant and may undergo a subsequent unsafe abortion if contraception is not made available during this brief interval. Post Abortion Family Planning (PAFP) is one of the most important components of a comprehensive abortion service as it reaches women at the only time they may enter the health system for an abortion related service and offers them the support they need to avoid future unwanted pregnancies.

Method: The data will be collected using the PAFP Data Collection Tool. This is a simple record that collects key information about each client that visits our centres for abortion. This can be printed out and kept alongside client registers in the chosen centres. The tool should be filled out by the centres involved in the project and sent to the project supervisor regularly. If the centres have access to a computer either at reception or in the centre manager’s office the data can be transferred to an excel spreadsheet, before it is sent to the supervisor.

Results: Average age of clients is 27.83yrs and 99% of abortion performed <9 weeks, in which 76% of abortions were Medical Abortion; 61% women not using any regular contraception before coming to Marie Stopes centres; 74% PAFP (slightly skewed due to 2 centres with small sample numbers but 100% PAFP); Pill most popular method for PAFP (43%); Higher IUD rates (14%) than other programmes 70% of women pay for PAFP.

Conclusions: Improve PAFP, especially long term reversible methods, is essential amongst young abortion clients to help them preventing repeat abortion and management their fertility.
Method: A cross-sectional study was conducted between April 2014 and December 2012 using 502 infertile women who had attended the infertility clinic, Jahrom, Iran. The Female Sexual Function Index (FSFI) questionnaire was used for sexual function assessment. The data were analysed by Descriptive Statistic and presented as mean± standard deviations, minimum and maximum values and used SPSS 11.5 software program.

Results: A total of 502 infertile women were surveyed. The mean age of women 30.95±6.80 years were. The average total FSFI score was 16.35±4.75. Result showed that 430 (87.1%) of women had sexual dysfunction (FSFI < 26.55), while only 72 (12.9%) had normal sexual function (FSFI score ≥26.55), the most common sexual problems were decreased libido 95.2% and anorgasmia 94.6%.

Conclusions: Sexual dysfunction in infertile women was very high, which might be due to the lack of knowledge about marital issues, lack of training in the society.

Method: A systematic search of various databases was performed from January 1, 1984 to December 31, 2014 using key words “PCOS”, “laparoscopic ovarian surgery”, “LOD”, “laparoscopic ovarian diathermy”, “laparoscopic ablative therapy” and “laparoscopic ovarian electrocautery”. Relevant evidence was identified and assessed for quality and suitability for inclusion in the following order – systematic reviews, meta-analyses, guidelines, randomized controlled trials (RCTs), prospective cohort studies, observational studies, non-systematic reviews, and case series. A total of 99 publications were included for review and relevant pre-, intra- and post-operative aspects of LOD have been compiled into a poster.

Results: Most authors and recommending bodies advocate its use in selected cases of CC-resistant PCOS – those with hypersecretion of luteinizing hormone (LH), normal body mass index, non-feasibility of the intensive monitoring with gonadotropin therapy or those needing laparoscopic assessment of the pelvis. The most widely performed technique is monopolar diathermy with 4 punctures per ovary, each for 4 seconds at 40 W. Spontaneous ovulation, pregnancy and live birth rates are comparable to medical means of ovulation induction. Although its role in reducing androgen and LH levels is well established, evidence on amelioration of insulin resistance or clinical hyperandrogenism is inconclusive.
**P0676**

**THE DYSFUNCTION OF TSPAN-5 AT HUMAN MATERNAL-FETAL INTERFACE MAY ASSOCIATE WITH UNEXPLAINED PREGNANCY LOSS**

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**Objectives:** We detected the expression of Tspan-5 protein in human placental villi and decidual tissues of spontaneous abortions, to explore the function of Tspan-5 at maternal-fetal interface.

**Method:** Trophoblastic and endometrial tissues were collected from 37 unexplained spontaneous abortion. 41 age-matched normal early pregnancy women, who had voluntary abortion, and 12 normally fertile women, who received an uterine sounding before IVF-ET for male infertility, were included as control groups. Immunohistochemistry was used to detect the expression of Tspan-5 in villi and decidua tissues of normal pregnancy and miscarriages in the First-trimester Pregnancy.

**Results:** (1) In human placental villi: Tspan-5 was detected in the cytotroblasts and Extravillous Cytotrophoblas (EVCT), which invading the endometrium during implantation and placentation, in both of normal pregnancy and miscarriages, but not in the syncytiotrophoblasts. The intensity of Tspan-5 expression decreased in miscarriages, showing significant differences (mean of IOD: 53.22±35.47 vs 89.04±36.44; t=-4.39, P=0.0000). (2) In decidual tissues: Tspan-5 was expressed in the decidual stromal cells (DSC) and glandular epithelial cells in both of the two groups, but not in granulocytes. And levels of the Tspan-5 protein were significantly increased in miscarriages (mean of IOD: 184.49±119.69 vs 93.43±67.10, P=0.0000).

**Conclusions:** The expression of Tspan-5 in decidual stromal cells suggests the migration of DSC. Tspan-5 may take part in the dialogue of DSC and EVCT. If dysfunction of Tspan-5 at maternal-fetal interface may association with unexplained pregnancy loss.

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**P0677**

**OXIDATIVE STRESS AND ANTIOXIDANT SUPPLEMENTATION IN PATIENTS WITH POLYCYSTIC OVARIAN SYNDROME (PCOS)**

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**Objectives:** To determine the oxidative stress level of PCOS patients, to assess the effect of antioxidant supplementation on the outcome of management of PCOS and to compare with a control group.

**Method:** The study was a randomised control trial involving 200 patients with PCOS. The study was conducted at Usmanu Danfodiyo University Teaching Hospital Sokoto. They were randomly divided into intervention and control group and base line serum levels of oxidative stress markers, vitamins and minerals were determined. Antioxidant supplementation and placebo were given to the intervention and control group respectively. All the patients had ovulation induction with clomiphene citrate and were followed up for 6 months. Outcome measures were clinical pregnancy or menstrual regularisation. The level of significance was ~0.05.

**Results:** There was statistical significant differences in he serum levels of oxidative stress markers, vitamins and minerals between the groups. Glutathione peroxidase (p=0.001), superoxide dismutase (p=0.0001), catalase (p=0.0369), melondialdehyde (p=0.007), vitamin A, vitamin C, vitamin E (p=0.0001), zinc, copper and manganese (p=0.0001). The clinical pregnancy outcome was 22 (22%) and 2 (2%) in the intervention and control group respectively. Menstrual regularisation was also 48 (48%) and 46 (46%) respectively.

**Conclusions:** Antioxidant supplementation significantly affected clinical pregnancy rate in patients with PCOS. Larger studies are suggested to revisit the conclusion of Cochrane review that antioxidants supplementation has no significant role in female infertility.

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**P0678**

**EVALUATION OF OXIDATIVE STRESS, ANTIOXIDANTS, GONADOTROPHINS AND PROLACTIN IN INFERTILE WOMEN**

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**Objectives:** To determine oxidative stress markers, antioxidant vitamins and minerals in infertile and fertile controls. To determine the level of gonadotropins and prolactin in both subjects.

**Method:** It was a case control study conducted at Usmanu Danfodiyo University Teaching Hospital Sokoto. It determined serum levels of malondialdehyde (MDA), catalase (CAT), glutathione peroxidase (GPx), superoxide dismutase (SOD) antioxidant vitamins and minerals using standard methods in 50 infertile females and their matched fertile controls.

**Results:** Serum levels of MDA, CAT and GPx were significantly higher (P<0.05) in the infertile group compared to the control: (MDA 5.92±0.39 vs 1.35±0.09, CAT:24.65±2.20 vs 104.14±2.24, GPx: 7.66±0.13 vs 25.24±0.55) while vitamins and minerals were significantly lower: (vitamin A: 0.61±0.05 vs 0.79±0.06, vitamin C: 1.67±0.11 vs 2.15±0.07, vitamin E: 0.23±0.03 vs 0.66±0.04, Cu: 682.84±10.88 vs 779.15±15.13, Mn: 0.46±0.02 vs 0.05±0.01, Zn: 70.41±15.26 vs 1040±41.01). FSH, LH and PRL serum levels were higher in the infertile subjects (FSH: 17.13±1.23 vs 6.80±0.45; LH: 18.38±1.23 vs 5.76±0.41; PRL: 33.84±4.14 vs 18.38±1.23).

**Conclusions:** Women with infertility have high oxidative stress status and low level of antioxidant. Nutritional Supplementation is recommended to enhance their chances of conception.

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**P0679**

**EFFICACY AND SAFETY OF INTRAVAGINAL DEAD SEA PELOTHERAPY IN INFERTILITY WOMEN PLANNING IVF**

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**Objectives:** The success rate of reproductive treatment methods depends on many different factors. Insufficiency of the endometrium might be a possible reason for implantation failure. The aim of the present study was to determine the efficacy and relative safety of intravaginal Dead Sea pelotherapy in infertility women planning IVF.

**Method:** The prospective cohort study included 56 infertile women aged from 20 to 35 years who had tubal pathology and planned IVF. Levels of hormones were determined and laparoscopy with the assessment of pelvic anatomy and tubal efficiency, diagnostic hysteroscopy and endometrial biopsies were performed in all cases. The treatment group of 29 women administered a daily 20-minute intravaginal application of Dead Sea peloid for 10 days, starting on the seventh or eighth day of their menstrual cycle. The control group of 27 women refused pelotherapy. IVF were assessed from 2 menstrual cycle after pelotherapy.

**Results:** There were no significant differences in levels of hormones and chronic of endometritis (51.7% and 44.4%; p=0.7817) in women of both groups. Intravaginal pelotherapy reduced the rate of chronic endometritis by 2.3 times (51.7 vs 22.6%). The conception rate was 58.6% and 14.8%, respectively (OR=4.0). We observed spontaneous conception after pelotherapy in nine women (31.0%) with proximal tubal occlusion and chronic endometritis. 20 treated
women and 27 controls with tubal infertility underwent IVF. Intravaginal administration of Dead Sea peloids enhanced the efficiency of IVF by 2.7 times (40.0% vs 14.8%). No adverse effects were observed in the treatment group.

**Conclusions:** Intravaginal Dead Sea peloid administration in young reproductive-aged women with tubal infertility substantially improves IVF results and contributes to the higher rate of spontaneous conception.

**P0680**

**IVF FAILURES IN PATIENTS WITH APS**

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**Objectives:** To evaluate the IVF outcome in APA patients.

**Method:** Since 2008 to 2014 we observed 367 women undergoing IVF. Group I composed 228 women with IVF failure and group II consisted of 139 women with IVF success. Control group – 60 healthy pregnant women.

**Results:** Group I: positive APAs were detected in 42%. Anticardiolipin – 8.9%, anti-ß2-GPI – 31%, antiprothrombin – 13.5% of women with IVF failure. Group II: APAs – 19%, anticardiolipin – 4.5%, anti-ß2-GPI – 15%, antiprothrombin – 8%.

**Conclusions:** APA should be considered an important risk factor of IVF failures. Patients who are involved with an IVF programme should be tested for the presence of APA prior to initiation of an IVF cycle. A complete APA panel is necessary for diagnosing implantation failure associated with APS.

**P0681**

**MALE INVOLVEMENT IN THE MANAGEMENT OF INFERTILE COUPLES AT THE KENYATTA NATIONAL HOSPITAL IN NAIROBI KENYA**

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**Objectives:** To determine the extent, predictors and impact of male involvement in the management of infertile couples at the Kenyatta National Hospital.

**Method:** This study was carried out in the Infertility and Gynaecology clinics at the Kenyatta National Hospital in Nairobi, Kenya. Study design: A hospital based cross-sectional descriptive study that involved couples presenting to the KNH Infertilility and Gynaecology clinics.

**Subjects:** Male and female patients (with a clinical diagnosis of infertility) attending the infertility clinic and the Gynaecological clinics at the Kenyatta National Hospital. A total of 163 women and 34 men were recruited into the study.

**Data was analysed using SPSS (Statistical Package for Social Scientists) data analysis programme version 19, Copyright 1989, 2010 SPSS Inc., an IBM Company.**

**Results:** At least 69.9% (114) of the women who participated were ever accompanied to the clinic by their spouses. Couple awareness on male participation in infertility was 61.8% by the men and 67.5% by the women. The male partners who came to the clinic were more involved in the care of their partners (p < 0.05). On multiple logistic regression, it was found that male partners of accompanied women were paying the medical bills (p-value = 0.017, OR=3.0 [1.2–7.4]), being investigated (p-value=0.011, OR=3.1 [1.3–7.5]), helping decide the treatment the partner receives (p-value = 0.04, OR=2.5 [1.0–5.9]) and accepting treatment if found to have a problem (p-value=0.005, OR=4.0 [1.5–10.5]).

**Conclusions:** Male partner participation improved the quality of care. In light of our findings, further research should be done on ways to improve male partner attendance and participation in the infertility clinic.

**P0682**

**FOLLICULOGENESIS OF ENDOMETRIOsis STUDY ON POLymorphism T (TTTA)n INTROn4 GENE CYP19**

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**Objectives:** To investigate folliculogenesis disorders in endometriosis by evaluating the difference of VNTR intron 4 gene CYP19 polymorphism frequency relating to the folliculogenesis defects.

**Method:** This research is a case-control study. Blood samples from 25 endometriosis patient and 25 normal. Polymorphism variations are analyzed by Gene Scanning, frequency were compared by bivariate analysis.

**Results:** Result the length of fragments are 152–191 in accordance to (TTTA) in repeat 2–12. In the endometriosis group there are 7 polymorphism groups (1) 6/6, 6/6, 6/8, 6/11, 2/7, 11/12 and 11/12, most cases are 6/11 genotype or (TTTA)/6(TTTA)/11 (8 patients, 32%) and the most control groups are 6/6 genotype or (TTTA)/6(TTTA)/6 (8 patients, 32%). In control group, the dominant homozygote genotypes are 6/6 and 7/7 is 32 and 12%; endometriosis genotype 6/6 groups is 16%. Long allele polymorphism frequency ≥175 bp on endometriosis had significant, OR=4.57 (95% CI: 1.25–16.69). Relationship length alleles endometriosisst stage (1+II) was significant OR=6.7 (95% CI: 1.32–34.38).

**Conclusions:** Significance difference in polymorphism (TTTA)n repeat intron 4 gene CYP19 correlate with folliculogenesis between endometriosis patient and control.

**P0683**

**Cervical Factor In Infertility – Benefits of Colposcopy Assisted Cervical Electrocautery. Descriptive Study AT Rukmini Hospital, Nagpur, India**

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**Objectives:** To evaluate results of Colposcopy assisted cervical cautery in treatment of Infertility due to Cervical factors. To improve evidence based counselling and treatment of Cervical factor infertility patients.

**Method:** 25 Infertility patients attending Rukmini Hospital (private), who had Cervical erosion inspite of trial of oral and vaginal antibiotics on clinical examination were selected for this study. Inclusions – primary or secondary infertility patients without tubal uterine, hormonal or male causes of infertility. Pap smear taken at examination, patients with report of inflammatory smear included. Colposcopy was done, erosion demarked with Lugols iodine, and cauterized with Electrocautery. Prophylactic antibiotic Ofloxacillin 200mg bd for 7 days and metrogyl 400mg tds for 7 days given with Antioxidants & multivitamins. Follow up done at 15 days & one month. Color printouts of erosion given.

**Results:** 4 patients reported with spontaneous pregnancy in two months. 5 patients reported with spontaneous pregnancy within three months of procedure. 3 patients reported with spontaneous pregnancy at the end of one year post procedure. 2 patients conceived within 6 months, but had missed abortion at 5 and 6 weeks. 9 patients did not conceive till one year. Statistical analysis calculated in percentages. Cervical cauterezation under colposcopy gave 48% Success for treating infertility due to cervical factor.
Conclusions: Evidence is increasing that infection does not cause cervical erosion but it is rather the other way around - the changed cells of cervical erosion are more susceptible to various bacteria and fungi and tend to get infected. New squamous epithelium grows after electrocautery, and cervical function returns to normal, and spontaneous pregnancy is achieved. Colposcopy guided cautery gives better results due to better visualization and better patient counselling as pictures can be given to patient. Colposcopy directed cervical cautery an be a useful method to treat infertility due to Cervical Erosion. Long-term motive of cancer awareness & prevention is achieved.

P0684
METHODS FOR THIN ENDOMETRIUM TREATMENT IN INFERTILE WOMEN

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Objectives: Evaluation of efficiency of non-hormonal therapy focused on improvement of thin endometrium growth.

Method: 35 females from 21 to 44 years with infertility, failed attempts of IVF, associated with thin endometrium(<7 mm). Study methods included transvaginal ultrasound diagnostics, office hysteroscopy, real-time PCR diagnostics of vaginal, cervical and uterine infections. The following therapy methods were applied: human placental hydrolysate 6 mL by drop intravenous infusion No.10 during preconception preparation (20 patients), granulocyte colony-stimulating factor as intrauterine instillations during proliferative phase of the cycle of scheduled spontaneous conception or IVF (12 patients). Mesenchymal stem cells of menstrual blood were applied to treat 7 patients.

Results: Persistence of pathogenic microorganisms in the endometrium was found in 65.7% of observations. Ultrasound monitoring showed growth of endometrial from 6.2±0.29 to 8.4±0.37 with placentaldrug. Effect was evaluated by pregnancy onset as a result of conducted controlled ovarian stimulation or IVF in 60% of patients. Patients receiving GCS-F, thickness of endometrium increased from 6.12±0.27 to 8.2±0.40, pregnancy was registered in 75% of patients. For conduct of MSC therapy, 4 patients who did not respond to the therapy with placentaldrug, GCS-F and 3 patients with extremely thin endometrium were selected. Mean thickness endometrium increased from 5.10±0.21 to 6.74±0.56 mm.

Conclusions: High frequency of persistence of facultative microflora in the endometrium is the basis for microbiological examination by real-time PCR diagnostic of infection in all patients with thin endometrium. Administration of human placental hydrolysate at the preconception stage and GCS-F in the cycle of controlled ovarian stimulation and ART assisted reproductive technologies programs are promising methods for fertility restoration in patients with infertility and thin endometrium. Application of MSC of menstrual blood allows solving a problem of endometrial growth in case of absolute non-response to hormonal and non-hormonal treatment methods. Further studies in this field are required.

P0685
PREVALENCE AND AETIOLOGY OF INFERTILITY IN EXTREMES OF REPRODUCTIVE AGE IN ZARIA, NORTHERN NIGERIA

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Objectives: To determine prevalence and aetiology of infertility among clients in extremes of the reproductive age attending the Gynaecology clinic at the Ahmadu Bello University Teaching Hospital Zaria, northern Nigeria.

Method: A retrospective study of the case notes of 352 patients seen in the infertility clinic of a teaching hospital over a 5 year period (2010 to 2014) where information on the above information was extracted.

Results: Of the 352 cases 110 were among the extremes of reproductive age; 15 (13.6%) were below 18 years while those above 35 years were 95 (86.4%). Thirty six of the clients (32.7%) had primary infertility while 74 (67.3%) had secondary infertility. The commonest single aetiological factor was tubal seen in 31 cases (28.2%) followed by uterine seen in 20 cases (18.2%) and the ovulatory seen in 13 cases (11.8%). A combination of factors was seen in 57 cases (51.8%) and the commonest combination was tubo-peritoneal factor seen in 16 cases (14.5%). Male factor was seen in 27 cases (24.5%).

Conclusions: This study confirms a high percentage of infertility at extremes of reproductive age in this environment. One would have expected the ovulatory factor to be the commonest single cause but on the contrary we found it to be the tubo-peritoneal factor. This signifies that infection related causes of infertility is still as source of concern in the developing world.

Medical Disorders in Pregnancy

P0686
OUTCOME OF PREGNANCY AMONGST HEPATITIS B VIRUS POSITIVE PREGNANT WOMEN IN A TERTIARY HOSPITAL, NORTHERN NIGERIA

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Objectives: To determine the outcome of pregnancy in Hepatitis B virus infected pregnant women and the risk factors for acquiring the disease.

Method: It was a prospective study of pregnant women in Sokoto, Nigeria carried out between 12th, December 2012 to 29th, October 2013. They were recruited randomly, and using structured questionnaires, relevant informations were obtained. They were screened for Hepatitis B surface antigen. Those who tested positive were further screened for Hepatitis B e antigen, antibody to e antigen and Liver function test. The negative samples were further screened for antibody to core Antigen. The exposed neonates were screened for Hepatitis B surface and e antigen. The results thus obtained were then analysed.

Results: The sero-prevalence rate was 10.4% (19/183). There was no adverse maternal or fetal outcome and no identifiable risk factors among respondents. None among their babies was sero-positive.

Conclusions: Hepatitis B virus infection is hyperendemic in our region, there is need for routine antenatal screening of pregnant women and early active and passive immunisation of exposed neonates to reduce this rate in the sub-region.

P0687
ECLAMPSIA IN AFRICA: WHO, WHERE AND WHEN?

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Objectives: To measure the incidence of eclampsia, determine the type of health facility eclamptics were referred from, the gestational age at first seizure and whether there is seasonal variation or not.

Method: A retrospective study of 42 eclamptics at University of Nigeria Teaching Hospital, Enugu, Nigeria from 2004 to 2011 was done. Information collected from the case notes included sociodemographic
characteristics, booking status, type of health facility referred from, gestational age at first seizure, month of admission and maternal deaths.

**Results:** The hospital incidence of eclampsia was 0.86%. The mean age was 25.8 years ± 9.6 years. More than half primigravidae (57.1%), and 31% had secondary school education: these observations were statistically significant (x² = 17.05, P < 0.01, x² = 27.14, P < 0.01, x² = 11.33, P = 0.01 respectively). 85.7% were unbooked: this was statistically significant (x² = 21.43, P = 0.00). 33% were referred from a private hospital and 26.2%, maternity home. The mean gestational age at first seizure was 35 weeks ± 4 weeks. 83% of the seizures occurred during rainy season; this was statistically significant (x² = 18.67, P < 0.01).

**Conclusions:** Eclampsia is one of the leading causes of maternal mortality. Majority of the eclamptics were primigravidae, unbooked and sought care at substandard facilities. There is need for health education of women of child bearing age as well as their families.

**P0688**

**PREVALENCE OF ADDICTION OF BETEL NUTS IN PREGNANT ANEMIC WOMEN**

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**Objectives:** To determine the prevalence of addiction of betel nut formulation in pregnant women presented with anemia and to find out the association of this addiction with an adverse pregnancy outcome.

**Method:** This cross-sectional study was conducted at the obstetric and the gynecological unit III of Liaquat University hospital Hyderabad Sindh for the period of one year from January 2013 to December 2013. All women admitted in ward with hemoglobin less than 10gm/dl were included in study. Variable analyzed were demographic characters, severity of anemia and fetal out come.

**Results:** A total 1700 women were admitted with hemoglobin <11gm/dl during the study period. Out of these around 50% of woman were between age group 25–35 years, 44.17% patients were multipara and 52% patient's belonged to rural areas. 80% of women with moderate anemia had history of addiction of betel nut. 71% of women with low birth weight had similar history.

**Conclusions:** It is concluded that consumption of betel nut, especially among pregnant women is very high in our community. It is also determined that these products are positively correlated with an adverse pregnancy outcome.

**P0689**

**A RARE CASE OF APLASTIC ANAEMIA FIRST DIAGNOSED IN PREGNANCY – A CASE REPORT**

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**Objectives:** The occurrence of aplastic anaemia in pregnancy is very rare. Our current knowledge of the disease is based on few reports of single patients. We review the literature to improve our understanding of this disorder in order to provide appropriate care and treatment.

**Method:** We report a case of aplastic anaemia diagnosed during pregnancy. We review the literature for the reported cases, and discuss the management options.

**Results:** A 29 years old primip lady, which was low risk at booking, presented with a history of bleeding gum, nosebleed, and bruising. She was 22 weeks pregnant. The blood tests demonstrated gradual deterioration in her biochemical profile. She was screened for Fanconi’s anaemia. Bone marrow biopsy confirmed the diagnosis of aplastic anaemia. She was managed throughout the pregnancy in collaboration with the haematologist. She had platelets transfusion, and was started on Cyclosporin 50mg/day. She felt improvement in her general condition, and went into spontaneous labour at 38 weeks. She delivered 2.2 kg baby with Apgar score of 10 at 1 minute.

**Conclusions:** There is no agreement about the optimal supportive care and treatment regime for Aplastic anaemia during pregnancy, however, Cyclosporin seems to be safe drug antenatally. Steroids, antithymocyte globulin therapy are the other treatments to resolve haemato poiesis.

**P0690**

**MRS2179: A NOVEL INHIBITOR OF PLATELET FUNCTION**

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**Objectives:** Antiplatelet agents, such as aspirin and P2Y12 inhibitors, are essential in the secondary prevention of cardiovascular disease. Despite effective treatment with these drugs, many patients still suffer ischemic events. This suggests the need for additional antiplatelet therapy. The P2Y1 receptor is a seven transmembrane G protein coupled receptor responsible for platelet shape change and reversible aggregation. Animal studies have shown that antagonists of the P2Y1 receptor, such as MRS2179, inhibit platelet aggregation [3]. The effect of P2Y1 inhibition in man is not yet clear. To address this we characterised platelet function in human blood using a novel shear-mediated dynamic assay.

**Method:** Blood used was drawn from healthy donors free from antiplatelet medication. Light transmission aggregometry (LTA) was used to determine the optimal concentration of MRS2179. Platelet aggregation was induced by the addition of incremental concentrations of ADP. The optimal concentration of MRS2179 to inhibit ADP induced aggregation was 20μM. Thrombus formation in vivo occurs due to the tethering, adhesion and translocation of platelets to von Willebrand Factor (vWF) under arterial shear conditions. To test the effect of MRS2179 under these conditions blood was perfused at an arterial shear rate of 1500-s through custom made parallel plate flow chambers coated with purified vWF.

**Results:** The results of this study demonstrate that a concentration of 20μM of MRS2179 effectively inhibits aggregation. In 13 normal donors 20μM either completely inhibited ADP induced aggregation or enhanced platelet disaggregation (p < 0.05). In preliminary experiments from 3 normal donors assayed there were no significant changes in most of the parameters measured in the dynamic assay. However, platelet translocation velocity in the presence of the P2Y1 antagonist was significantly increased (p < 0.05).

**Conclusions:** Selective inhibition of the P2Y1 surface receptor results in a significant decrease in aggregation in the presence of an agonist. Preliminary data using a novel dynamic assay of platelet function suggests that P2Y1 inhibition may be of therapeutic value.

**P0691**

**THE PREDICTIVE VALUE OF SERUM URIC ACID FOR THE OCCURRENCE, SEVERITY AND OUTCOMES OF PRE-ECLAMPSIA AMONG PARTURIENTS AT NNEWI NIGERIA**

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**Objectives:** To determine the predictive value of serum uric acid for preeclampsia, its severity and pregnancy outcome.

**Method:** A cohort study performed on normal pregnant women attending antenatal clinic at Nnamdi Azikiwe University Teaching Hospital Nnewi Nigeria. Serum uric acid was determined in 200 women attending antenatal clinic between the gestational ages of 14 and 26 weeks. The women were followed up at 2 weekly intervals until 36 weeks and weekly thereafter until delivery. Women who developed pre-eclampsia or eclampsia were identified. Pregnancy outcomes were determined as well as fetal and placental weights. The data was analysed with SPSS version 16.0. The chi square was used for test of significance. The positive and negative predictive values were determined.
P0692
PREVALENCE AND CORRELATES OF BACTERIAL VAGINOSIS AMONG HUMAN IMMUNODEFICIENCY VIRUS POSITIVE PREGNANT WOMEN AT AMINU KANO TEACHING HOSPITAL, KANO, NIGERIA
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Objectives: To determine the prevalence of BV among HIV positive pregnant women attending antenatal clinic at AKTH. It is a descriptive cross-sectional study carried out on 242 HIV positive pregnant women as the study group and 242 HIV negative pregnant women as the control group. Following administration of the questionnaires, high vaginal swabs (HVS) was collected and tested for pH, whiff test and microscopy to identify clue cells were done. The data was analyzed using Epi info version 3.5. Chi-square test was used to determine the strengths of association between exposure (HIV) and outcome (BV) variables in the study and controlled for parity (PH), where the coefficient of determination was tested for PH, whiff test and microscopy to identify clue cells were done. The association was considered statistically significant at p-value of <0.05.

Results: The mean ages for both groups were 28.4 (SD ±4.45) and 28.7 (SD ±4.88) years for reactive and non-reactive groups respectively. The women’s parity ranged from 0 to 7 and mean parity were 28.7 (SD ±4.88) years for reactive and non-reactive groups respectively. The overall prevalence of bacterial vaginosis among pregnant women attending ANC clinic at AKTH was 43.2%. The prevalence of BV positive pregnant women (71.3%) is significantly higher than that of HIV negative pregnant mothers (28.7%), p<0.001.

Conclusions: Pregnant HIV positive women have higher risk of developing Bacterial Vaginosis compared with their HIV negative counterparts. Active screening for bacterial vaginosis among HIV positive pregnant women is advised.

P0693
THE EFFECT ON MATERNAL CBC OF FETOSCOPIC LASER OCCLUSION OF CHORIOANGIOPAGOUS VESSELS IN TREATING TWIN TO TWIN TRANSFUSION SYNDROME
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Objectives: To evaluate the effect on maternal CBC of fetoscopic laser occlusion of chorioangiopagous vessels (FLOC) in treating twin to twin transfusion syndrome.

Method: The clinical data of 71 consecutive cases of TTTS who had FLOC in the Department of Obstetrics and Gynaecology of Peking University Third Hospital were reviewed and analyzed for red blood cell count, hemoglobin and hematocrit.

Results: 1) The average operation time of FLOC was 64.0±16.3 minutes; the perioperative blood loss less than 5ml, there was 1 case of placental abruption postoperation, 1 case of placental vessel rupture. 2) Removed the above 2 cases, in the left 69 cases, the red blood cell count [(3.47±0.37)×10^{12}/L] vs [(3.01±0.37)×10^{12}/L, p=0.000], hemoglobin [(107.8±12.3) g/L] vs [(95.1±11.2) g/L, p=0.000] and hematocrit [(0.314 (0.238, 0.387)] vs (0.276 (0.213, 0.800), P=0.000] all declined significantly 24 hours after FLOC.

Conclusions: The blood dilution can not be ignored after the FLOC in the patients complicated with TTTS; furthermore we suggest routine assessment of maternal cardiac function for some patients in high risk of cardiac disfunction complicated with TTTS.

P0695
SEROPREVALENCE AND RISK FACTORS OF CYTOMEGALOVIRUS AMONG PREGNANT WOMEN AT ST. PAUL HOSPITAL MILLENNIUM MEDICAL COLLEGE. A CROSS-SECTIONAL PROSPECTIVE STUDY
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Objectives: The overall aim of the study was to determine the prevalence and identify risk factor of CMV infection among pregnant women in St.Paul’s Hospital Millennium Medical College, Addis Ababa, Ethiopia.

Method: A cross sectional types of study was employed on pregnant women starting from June-July 2014. A total of 200 individuals were consecutively recruited. A Blood sample was collected from selected pregnant women who were present at health facility for ANC. Structured questionnaire were used to gather socio-demographic data and risk factors. ELISA was used to detect anti-CMV IgG and IgM.

Results: Human cytomegalovirus IgG was detected 88.5%, and 15.5% IgM also found to be positive among pregnant women. Eleven percent of those participants were at risk of having the infection. Interestingly, only one pregnant woman was identified as having a recent primary infection. There was no statistical significant was detected between CMV positivity and any Obstetrical, socio-demographical and clinical characteristic (p>0.05). Therefore, there was no independent predictor for acquiring CMV infection.

Conclusions: This is the first research in our country, to provide information regarding HCMV seroprevalence in Ethiopia. Despite the high rate of seropositivity, the importance of HCMV testing during pregnancy should not be undermined. A comprehensive study with a long term follow-up examination of Pregnant women and their offspring born to HCMV IgM-positive mothers would be required to provide estimates of an accurate percentage of symptomatic congenital HCMV infection.

P0696
A RARE CASE OF PRIMARY LYMPHEDEMA IN PREGNANCY WITH SUBACUTE VENOUS THROMBOSIS
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Objectives: The objectives of this paper is to discuss and present the management of pregnant women with primary lymphedema. This includes antithrombotic management, fetal surveillance, intrapartum and postpartum monitoring.

Method: This paper is a case report of a 26 year old primigravid with a chief complaint of leg swelling on her 26 weeks AOG. AV Duplex scan of the lower extremity showed subacute venous thrombosis. Antenatally complicated by gestational diabetes mellitus (GDM) controlled by medical nutrition therapy. At 30 weeks AOG, she was admitted for preterm labor controlled with magnesium sulfate. Anti-coagulation with heparin was maintained until 37 weeks AOG. Antenatal corticosteroids were administered with weekly surveillance of Biophysical Profile, (BPS w/ NST), and glucose monitoring. At 38 weeks AOG, she delivered vaginally. Contraceptive with Medroxy Progesterone Acetate was initiated at 6 weeks postpartum.

Conclusions: Rigorous antenatal and postnatal surveillance is key in the management of pregnancy complicated by primary lymphedema and venous thrombosis. Primary lymphedema is generally a stable condition which can be managed conservatively during pregnancy.
P0697
MAGNESIUM DEFICIENCY PREVALENCE ESTIMATION AMONG PREGNANT WOMEN IN THE REPUBLIC OF KAZAKHSTAN
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Background: The normal magnesium level in human body is fundamental constant which controls homeostasis and human health respectively. Pregnancy is accompanied by progressive recession of magnesium level due to its high consumption for plastic and energetic processes and also due to rising renal excretion in about 25%.

Objectives: To estimate the prevalence of magnesium deficiency in pregnant women in out-patient departments of maternity welfare centers in the Republic of Kazakhstan as there was none large-scale multicenter trial performed on magnesium deficiency prevalence among pregnant women in Kazakhstan up to date.

Method: The trial has included 314 pregnant women from three cities of Kazakhstan. Status of pregnant women included in trial was registered during the course of 2 visits to a doctor: the 1st is stage of inclusion into the trial and 2nd (final) is stage of long-term follow-up by the decision of a doctor (after 1 month). Diagnosis of magnesium deficiency had been confirmed by recession of magnesium level in blood lower than 0.8 mmol/L and/or overall scoring of ≥ 20 obtained through the standardized questionnaire on detection of magnesium deficiency which is widely used in international practice.

Results: Prevalence of magnesium deficiency among pregnant women made up 257/314 (81.8%) according to the questionnaire results. Magnesium level in blood was detected in 274/314 patients at the first visit. According to the blood test the prevalence of magnesium deficiency made up 209/274 (76.28%) and the average level was 0.77±0.01 mmol/L. Magnesium containing medicine was prescribed to 276 (87.8%) pregnant women with magnesium deficiency detected by the blood test. After the course of treatment magnesium level in blood plasma statistically increased and made up 0.87±0.01 mmol/L. Ratio of pregnant women with magnesium deficiency in blood plasma has decreased from 76.3% to 34.1%.

Conclusions: The high prevalence of magnesium deficiency made up 81.8% according to the data of the questionnaire and 76.28% according to the blood test. The magnesium containing medicine was prescribed for 1 month. After the course of treatment the magnesium level in blood raised from 0.77 mmol/L to 0.87 mmol/L (p < 0.001). According to the results of questionnaire the average score statistically reduced and made up 11.38±3.04 against 24.43±3.37 at the first visit to doctor (p < 0.001). Intake of magnesium containing medicine was justified by symptoms and blood test. There were shown its high efficiency, tolerability and safety during the trial.

P0698
FETOMATERNAL OUTCOME OF PREGNANCY IN OVERT AND SUBCLINICAL HYPOTHYROIDISM – A TERTIARY CARE HOSPITAL EXPERIENCE
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Objectives: To see the maternal and fetal outcome of pregnancy with Subclinical and Overt Hypothyroidism.

Method: A prospective cross sectional study carried out in the Feto-maternal Medicine wing of Department of Obstetrics and Gynaecology, Bangabandhu Sheikh Mujib Medical University, Dhaka during the period of July 2013-December 2013. 75 admitted patients with Subclinical and Overt hypothyroidism diagnosed during ANC were included. Among them 43 were pregnancy with Subclinical Hypothyroidism (Group 1), rest 32 were Overt Hypothyroidism (Group 2). All the patients were managed according to the standard regimen and the collected data were analyzed by SPSS version 18, using the chi-square, “t” test & Fisher’s exact test.

Results: Majority (62.8%) of group 1 were 15–24 yrs age group and 65.6% of group 2 were 25–44 years. Medical diseases were more in group 2. Diabetes mellitus was 14% in group 1 and 40.6% in group 2. Anaemia was 37.5% in overt hypothyroidism and 18.6% in Subclinical hypothyroidism. 55.8% of group 1 patients received 50μg of levothyroxine whereas 75% of group 2 were on 150 μg of levothyroxine. Maternal complications (PPH, impending eclampsia) and fetal complications (IUD, fetal distress) were significantly higher in Overt hypothyroidism (p < 0.05). LBW babies were 13% in group 1 and 75% in group 2.

Conclusions: Hypothyroidism in pregnancy (subclinical and overt) is associated with both maternal and fetal complications. However maternal complications like PPH, uterine rupture, abortion were observed only in patients with overt hypothyroidism. Fetal complications such as IUD, fetal distress and low birth weight babies were more in patients with overt hypothyroidism than subclinical hypothyroidism.

P0699
ASYMPTOMATIC BACTERIURIA IN PREGNANT WOMEN IN THE ANTENATAL CLINIC AT AMINU KANO TEACHING HOSPITAL KANO NORTH WEST NIGERIA
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Objectives: Asymptomatic bacteriuria (ASB) is common in pregnant women and if untreated could lead to serious complications. Despite this, its prevalence and microbiological characteristics have not been well studied in Kano and they vary among different populations. This study was to determine the prevalence and microbiological characteristics of ASB and pregnancy outcome following treatment of ASB in pregnancy among women who came for antenatal booking clinic at Aminu Kano Teaching Hospital (AKTH) Kano, North West Nigeria, to make recommendations to improve our antenatal care.

Method: This was a cross sectional descriptive study done at AKTH, Kano. Randomly selected, 200 consenting booking antenatal clients between December 2010 and February 2011, who had no symptoms of UTI or use of antibiotics in the index pregnancy, formed the study population. Samples of 10-15 ml of urine were examined for pus cells and bacteria, and cultured on CLED agar. Colonies yielding bacterial growth of 10^2 [ml or more of pure isolates were deemed significant, and identified to species level. Antibiotic sensitivity test was done, treatment given and pregnancy outcome was determined. The results were analyzed using SPSS version 16.

Results: The prevalence of ASB in pregnancy was 9%. Parity and pyuria had statistically significant association with ASB (P < 0.05). The commonest organisms isolated were Klebsiella spp and Staphylococcus saprophyticus. Following treatment of ASB, there was no statistically significant difference in pregnancy outcome compared to patients who did not have the condition.

Conclusions: The incidence of asymptomatic bacteriuria in pregnancy in AKTH is low. Thus, in such a low resource setting, screening of pregnant women using urine microscopy, culture and sensitivity should be reserved for pregnant women with higher risk of developing asymptomatic bacteriuria such as the grand multiparous women.
**P0700**

**MODE OF DELIVERY AMONG WOMEN WITH HYPERTENSIVE DISORDERS IN PREGNANCY AT KORLE BU TEACHING HOSPITAL, ACCRA**

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**Objectives:** To determine the relative proportions of vaginal and cesarean deliveries, and the common cesarean indications among women with hypertensive disorders in pregnancy (HDP).

**Method:** A cross-sectional study conducted at the Korle Bu Teaching Hospital in Accra. The study involved daily data extraction from the medical records of women with HDP post-delivery.

**Results:** A total of 368 women with HDP were studied with 168 (45.7%) and 200 (54.3%) having caesarean and vaginal deliveries respectively. Cesarean birth rate was highest and lowest in chronic hypertension and gestational hypertension respectively. Regarding the timing of caesarean delivery, 31 (18.5%) were in labour prior to the surgery whereas 137 (81.5%) had not gone into labour. The common caesarean indications among women with HDP were previous caesarean birth (26.2%), unfavourable cervix (22.6%), fetal distress (14.9%), failure to progress (10.7%), fetal malpresentation (9.5%), failed induction (7.1%) and placental abruption (3%).

**Conclusions:** There is a high prevalence of cesarean delivery among women with HDP in Ghana with previous cesarean section and unfavourable cervix constituting about 50% of the cesarean indications.

**P0701**

**PREGNANCY WITH CROHN'S DISEASE – A CASE REPORT**

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**Objectives:** To detect the disease earlier if the patient comes with repeated diarrhea during pregnancy.

**Method:** It is a clinical diagnosis and finally endoscopic biopsy was done to confirm.

**Results:** Crohn’s disease is diagnosed. In the evaluation of “persistent diarrhea”, sigmoidoscopy with appropriate biopsies is a very useful test. In our case, rectosigmoid biopsy showed fragments of rectal mucosa and portions of submucosa with marked surface ulceration, with granulation tissue and fibrino-purulent exudates. Few ulcers extended deeper into submucosa with fissuring pattern.

**Conclusions:** Crohn’s disease may be diagnosed before or after pregnancy but diagnosis of disease coinciding with pregnancy is a very rare occurrence. We present such a unique case of disease onset for the first time during pregnancy. The objective is to emphasize the fact that although rare, Crohn’s disease can present for the first time during pregnancy and this possibility should be kept in mind while evaluating a case of pregnancy with persistent diarrhea.

**P0702**

**THROMBOPHILIA AND NON-O-BLOOD GROUP AS RISK FACTORS FOR GESTATIONAL VASCULAR COMPLICATION AMONG TUNISIAN WOMEN**

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**Objectives:** To assess inherited thrombophilia and non-O-blood group for the risk of gestational vascular complications.

**Method:** The study included 203 test subjects with adverse pregnancy outcomes including recurrent pregnancy loss, intrauterine growth retardation, pre-eclampsia and placental abruption. Each subgroup was matched with 100 controls and analyzed separately. All patients were evaluated for factor V Leiden, factor II G20210A mutations and for non-O-blood group. Proteins S, protein C and antithrombin levels were determined and deficiencies noted.

**Results:** The factor V Leiden mutation, non-O-blood group and protein C deficiency had the highest incidences among patients both as a whole and in the four subgroups. The factor II G20210A mutation, protein S and antithrombin deficiencies were not statistically significant risk factors.

**Conclusions:** Our study provides evidence for a significant association between the factor V mutation and placental abruption. Furthermore, we found that this and the non-O-blood group independently increased the risk for intra-uterine growth retardation in our population.

**P0703**

**PREVALENCE OF LOW BACK PAIN IN PREGNANCY**

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**Objectives:** The aim of this study was to verify the prevalence of low back pain in pregnancy and its association with several covariates of interest in pregnant women, in Obstetrics Service of Botucatu Medical School, São Paulo State, Brazil.

**Method:** All pregnant women who underwent prenatal care in the service were eligible for the study, except those who refused to participate and/or had not showed preserved cognitive capacity to answer to the evaluation tool, composed by a structured questionnaire containing general and specific clinical data and description of back pain. The analyzed covariates were age, gestational age, weight, height, body mass, parity, physical activity and oral contraceptive use. In the exploratory analysis were used univariate logistic regression models and the variables whose p-values ≤ 0.25 were chosen for the multiple conditional logistic regression model.

**Results:** From the 781 women interviewed, 155 (19.8%) presented suggestive complaints of back pain. In the univariate analysis, the variables “age” and “more than one pregnancy” were eligible for the multiple model. By adjusting the multiple conditional logistic regression model we observed that “more than one pregnancy” variable was the only that remained in a final model as a factor associated with low back pain (OR=1.912, CI95%=1.326–2.762).

**Conclusions:** Low back pain was highly prevalent among the pregnant group studied, but less than have been showed by the literature. Have had more than one previous pregnancy was the only factor associated with low back pain in this case series.

**P0704**

**A POTENTIAL ROLE OF CXCR2 IN EARLY-ONSET PREECLAMPSIA: PLACENTA CXCR2 EXPRESSION IS RELATED TO INCREASED BLOOD PRESSURE AND SERUM LDH LEVEL**

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**Objectives:** Preeclampsia, an idiopathic obstetric disease, is a main cause of maternal and perinatal morbidity and mortality. Although the exact cause of preeclampsia is not completely understood, it is widely accepted that the genesis of preeclampsia, especially the early-onset one, is associated with inadequate trophoblast invasion and failure of spiral artery transformation. CXCR2, binding the ELR+CXC chemokines with high affinity, has been reported to exert important role in trophoblast invasion and could be involved in the pathogenesis of preeclampsia. This study was designed to determine the changes in and significance of placenta expression of CXCR2 in preeclampsia.

**Method:** Women with early-onset preeclampsia, late-onset preeclampsia and healthy pregnancy were included in the study, from March 2012 to October 2012. After immunolocalized in human
placenta, the levels of CXCR2 protein and mRNA were detected by Western blot, ELISA and Real-time quantitative PCR. Correlations between parameters were examined using Pearson or Spearman’s correlation coefficients.

**Results:** The expression of CXCR2 was found in the syncytiotrophoblasts and vascular endothelial in all groups with no difference between maternal and fetal side. The placental CXCR2 protein as well as CXCR2-mRNA expression of early-onset preeclampsia were significantly lower than those of healthy pregnancy and late-onset preeclampsia. The placental CXCR2 protein expression of early-onset preeclampsia correlated negatively with systolic blood pressure and LDH.

**Conclusions:** Significant abnormality of placental CXCR2 expression in early-onset preeclampsia, and correlations between placenta CXCR2 protein expression and some clinical parameters in early-onset preeclampsia were discovered, suggesting CXCR2 may play role in pathogenesis of early-onset preeclampsia.

**P0705**

**JAUNDICE IN PREGNANCY: A CLINICAL STUDY AT FATIMA MEMORIAL SYSTEM**

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**Objectives:** The objective of the study is to find the effect of jaundice during pregnancy on fetomaternal outcome over a 10-year period at tertiary care hospital.

**Method:** An analysis of fetomaternal outcome of all case records with jaundice in pregnancy from January 2003 to December 2013 is made.

**Results:** The incidence of jaundice in our study is 1 in 278 pregnancies, with the disease more common in younger age group. Viral hepatitis found to be the commonest cause, HEV being the commonest with a high maternal and perinatal mortality. Obstetric cholestasis being the second most common followed by HELLP syndrome, AFLP and sepsis; Hepatorenal failure, encephalopathy, DIC and PPH were the main causes of maternal mortality.

**Conclusions:** Viral hepatitis is most prevalent cause of jaundice in pregnancy, associated with a high maternal and perinatal mortality and morbidity.

**P0706**

**MATERNAL AND FETAL OUTCOME IN PREGNANT WOMEN WITH TAKAYASU AORTAORTERITIS. DOES OPTIMALLY TIMED INTERVENTION IN WOMEN WITH RENAL ARTERY INVOLVEMENT IMPROVE PREGNANCY OUTCOME?**

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**Objectives:** The prevalence of Takayasu Aortoarteritis is common in South-East Asian & Indian subcontinent with female to male ratio of 8:1. Age at diagnosis is less than 30 years in 90% cases. As the disease is common in women of child bearing age group, management of pregnancy in these patients becomes an important issue. The purpose of this study is to evaluate the maternal and fetal outcome in pregnancies with Takayasu Aortoarteritis and also to evaluate whether early intervention for renal artery involvement is associated with improved outcomes.

**Method:** Data of 12 patients with 18 pregnancies was collected prospectively from year 2006 to 2012. The patients were divided into three groups and their outcomes were noted: i) Without renal artery involvement; ii) With renal artery involvement without intervention; iii) With renal artery involvement for which intervention has been done.

**Results:** Renal artery involvement was seen in four patients, one had transluminal balloon angioplasty and another had renal artery stenting. In patients without renal artery involvement, hypertension, abortion and FGR was seen in 60%, 10%, and 40% pregnancies, respectively. In patients with renal artery involvement without intervention, hypertension was seen in 90%, preeclampsia in 20%, abortion in 60%, preterm in 20%, IUGR in 20%, fetal demise in 20% and neonatal death in 20% of pregnancies. In patients with renal artery involvement for which intervention has been done, hypertension was seen in 66%, abortion and IUGR was seen in 33% of pregnancies.

**Conclusions:** Pregnant women with Takayasu Aortoarteritis involving renal vasculature without any intervention are at high risk of having maternal and fetal complications. Early intervention prior to conception in these women is recommended to prevent pregnancy complications.

**P0707**

**SKELETAL DYSPLASIA**

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**Objectives:** Skeletal dysplasias are a rare group of conditions, 21–47/100,000 deliveries with varied forms and overlapping features. Acromesomelic dysplasia, an even rarer subtype, is suspected in an expectant patient with no prior work-ups. The obstetric difficulties in prenatal care of a short parturient with multiple congenital anomalies is discussed.

**Method:** A 26 year-old G2P1 (1001) came in for her first prenatal check-up at 14 2/7 weeks age of gestation. She had multiple congenital anomalies with predominant skeletal deformities, plus urinary incontinence, which remained undiagnosed at time of consult due to financial constraints.

**Results:** Patient delivered via normal spontaneous delivery with repair of 1st degree laceration under local anesthesia to a live term female with an Apgar score of 9.9, a Ballard score of 38 weeks, weighing 2020 g, appropriate for gestational age.

**Conclusions:** Though limb deformities may seem frequent, some rare forms of skeletal dysplasias are considered to be potentially lethal or life-limiting. Due to the risk of passing on a similar trait, antenatal diagnosis and perinatal management, poses an important step in prenatal care. Prenatal sonographic diagnosis of skeletal dysplasias though has become challenging because of the overlapping features. Due to the rarity and risk of lethality in congenital skeletal disorders, difficulty of an exact prenatal diagnosis, and variety of modes of inheritance and multifactorial influences, prenatal genetic counseling may better prepare high risk families for pregnancy outcomes, as in this case.

**P0708**

**URINARY EXCRETION OF BRUSH-BORDER ENZYMES OF THE PROXIMAL RENAL TUBULES IN PREGNANT WOMEN WITH HYPERTENSIVE DISORDERS**

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**Objectives:** Proximal tubules of the kidney have a dominant function in the excretion of different enzymes in the urine, which can be used as markers for renal damage caused by different diseases, medicaments or toxins. Urinary activity of brush border enzymes is known as sensitive indicators of tubular function. The aim of this study was to evaluate urinary excretion of three brush border enzymes: gamma-glutamyl transferase, alanine aminopeptidase and
leucyl aminopeptidase in pregnant women with various types of hypertensive disorders.

**Method:** The study consisted of 120 pregnant women divided into four groups: 41 women in 20th week of gestation or more, with gestational hypertension, 28 pregnant women after 20 weeks of pregnancy with preeclampsia, 21 pregnant women with chronic hypertension, identified before 20th week of pregnancy and 30 healthy, pregnant women. Urinary activity of enzymes was measured by colorimetric method. The median values of enzymes were expressed as U/g of urinary creatinine. For statistical analysis the ANOVA test and Mann-Whitney U test were used. The strength of correlation between the parameters was measured with the use of the Spearman’s rank correlation’s coefficient.

**Results:** There were no significant differences between the groups that concerned urinary levels of all the three of brush border enzymes. No correlation was found between the concentration of enzymes in urine and values of blood pressure of any of the analyzed groups of pregnant women.

**Conclusions:** The results obtained suggest that, in the early stages of disorders associated with an increase blood pressure during pregnancy, there is no damage to the brush border of the proximal kidney tubules.

**P0709**

**THROMBOPHILIA SERUM MARKERS IN PREGNANT WOMEN WITH SYSTEMIC LUPUS ERYTHEMATOSUS**

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**Objectives:** The aim of the study was to determine the frequency of serum markers for hereditary and acquired thrombophilia and their association with pregnancy in women with Systemic Lupus Erythematosus (SLE).

**Method:** A case-control study was undertaken on 25 pregnant women with SLE (study group) and 33 pregnant women without known disease and with at least one previous pregnancy (control group). The association of presence of antiphospholipid antibodies and hereditary thrombophilia were analyzed in both groups using the chi-square ($\chi^2$) test with the Yates correction or Fisher’s Exact Test; $P < 0.05$ was considered significant.

**Results:** The serum markers for thrombophilia were present in 72.0% of pregnant women with SLE and in 9.1% of patients in the control group. A significant association was found between the presence of SLE and serum markers for hereditary thrombophilia/antiphospholipid antibodies ($P < 0.05$). The relative risks for antiphospholipid antibodies were 13.20 (1.81<$\chi^2$<96.46) in pregnant women with SLE, 7.26 (1.77<$\chi^2$<29.86) for the presence of serum markers of hereditary thrombophilia and 7.92 (2.62<$\chi^2$<23.94) for the presence of hereditary thrombophilia and/or antiphospholipid antibodies.

**Conclusions:** Pregnant women with lupus have a higher relative risk of having serum markers for hereditary thrombophilia and/or antiphospholipid antibodies.

**P0710**

**EFFECTS OF PROSTASIN ON BIOLOGICAL FEATURES OF HUMAN EXTRAVILLOUS TROPHOBLAST CELLS UNDER NORMOXIA AND HYPOXIA**

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**Objectives:** To investigate the effects of prostasin, as an invasion suppressor for human cancer cells, on biological features of human extravillous trophoblast cells under normoxia and hypoxia.

**Method:** An immortalized normal human first-trimester trophoblast cell line (HTR-8/SVneo) was used as an in-vitro model. Prostasin in HTR-8/SVneo was over-expressed by treating with different concentrations of recombinant human prostasin, and knocked down by transfecting with siRNA. After altering the expression of prostasin under normoxia and hypoxia, the cell proliferation assay was analyzed by Cell Counting Kit-8 assay; migration and invasion were detected by Matrigel tests; cell apoptosis was assessed by flow cytometry. Moreover, the protein expression of invasion-related molecules under hypoxia was analyzed by Western-Blot. The levels of sFlt-1 and sEng in the culture supernatants were also measured by ELISA.

**Results:** Prostasin over-expression in HTR-8/SVneo cells under 20%O2 and 3%O2 enhanced proliferation, inhibited the invasion and migration. Prostasin knock-down in HTR-8/SVneo cells resulted in inhibition of proliferation under 20%O2 and 3%O2, increased invasive and migratory ability under 3%O2. Up-regulation or down-regulation of prostasin had no effect on apoptosis. Prostasin knock-down in HTR-8/SVneo cells under 3%O2 was associated with up-regulated expression of HIF-1α, snail, MMP2 and down-regulated of E-cadherin. The levels of sFlt-1 and sEng in supernatants under 20%O2 were significantly higher than those under 3%O2. By silencing prostasin expression in HTR-8/SVneo cells under 3%O2, the levels of sEng were significantly increased.

**Conclusions:** Prostasin may be involved in many important biological functions of human extravillous trophoblast cells such as proliferation, invasion, migration, and expression of endothelial cell specific biomarkers. These effects are also influenced by different oxygen concentrations. All the findings could help us reach a better understanding of the implantation and development of trophoblasts, which contributes to the pathogenesis of preeclampsia.

**P0711**

**SOLUBLE AND ENDOGENOUS SECRETORY RECEPTORS FOR ADVANCED GLYCATION END PRODUCTS IN THREATENED PRETERM LABOR AND PRETERM PREMATURE RUPTURE OF FETAL MEMBRANES**

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**Objectives:** The aim of the study was comparison of soluble as well as endogenous secretory receptors for advanced glycation end products (sRAGE, esRAGE) plasma levels in three groups diagnosed with: threatened premature labor - A (n=41), preterm premature rupture of membranes - B (n=49), preterm rupture of membranes at term - C (n=48).

**Method:** Not later than two hours after admission to the department, peripheral maternal blood was sampled from the ulnar vein, then treated with dispotassium ethylenediamine-tetraacetic acid and after centrifugation, obtained plasma samples were stored at - 80C until assays. Immunoassay methods were used to sRAGE and esRAGE calculations.

**Results:** A positive correlation was found in group A between plasma sRAGE concentration and: pregnancy duration from diagnosis to delivery ($r=0.422$; $p=0.001$), neonate birth weight ($r=0.338$; $p=0.03$) and gestational age at delivery ($r=0.469$; $p=0.002$). In A group the subgroup of pregnancies with latency period extended over seven days, significantly higher concentrations of sRAGE were found, compared with those in whom latency was less ($p=0.004$). In group B higher sRAGE levels occurred in the pregnant women whose latency from pPROM until delivery was over 24 hours ($p=0.007$).

**Conclusions:** High sRAGE concentration can be a favorable prognostic factor in the presence of symptoms of threatened premature la-
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Objectives: Over the years, diabetes mellitus (gestational and pre-existing) has been established by multiple studies to be a risk factor for adverse pregnancy outcomes, with haemoglobin A1c (HbA1c) having been identified as a potential predictor for some of them. While certain outcomes consistently demonstrate a strong association with HbA1c values, there is currently substantial variation in the reported relationship between large-for-gestational-age (LGA) infants and HbA1c values in pregnancy. The aim of our study was thus to investigate whether elevated HbA1c values (≥6.5%) during pregnancy are associated with an increased risk of having an LGA infant (birth weight >90th percentile for gestational age).

Method: The study population consisted of 202 women whose babies were born at term (37+0 to 41+6 weeks) in KK Women's and Children's Hospital, Singapore, in 2012 or 2013. They had been diagnosed with either pre-existing or gestational diabetes mellitus in the current pregnancy. A single HbA1c measurement was performed during either second or third trimester at a median (minimum, maximum) gestational age of 29 (13, 38) weeks. Relevant data was abstracted from the electronic medical records system for this prospective cohort study. Exclusion criteria included multiple gestation, congenital anomalies/infections, genetic syndromes, significant maternal medical condition or incomplete data records.

Results: Mean maternal age (years) was 33.07. Of the women, 35.1% were Malay, 33.7% Chinese, 24.3% Indian and 6.8% of other races. Women with HbA1c values ≥6.5% were significantly more likely to have LGA infants than women with HbA1c values <6.5% (relative risk: 5.00, 95% Confidence Interval (95% CI: 2.92, 8.40). Adjusted for maternal age and race, their odds of having an LGA infant was 8.61 times (95% CI: 3.70, 20.71) that of the latter group. In addition, for every 1% increase in HbA1c, the odds of having an LGA infant increased by a factor of 2.07 (95% CI: 1.45, 2.96).

Conclusions: Women with pre-existing or gestational diabetes mellitus who have an elevated HbA1c measurement (≥6.5%) during pregnancy have five times the risk of having an LGA infant as compared to women with normal HbA1c levels (<6.5%) during pregnancy. Also, for every 1% increase in HbA1c levels, the women's odds of having an LGA infant was doubled.

P0714
CHRONIC COAGULATION DYSFUNCTION DUE TO FETAL LOSS: A CASE REPORT AND BRIEF REVIEW OF THE LITERATURE

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Objectives: We present a case of fetal loss for more than one and a half month with chronic disseminated intravascular coagulation in a woman who presented no bleeding.

Method: A 29-year-old pregnant woman at 38 and 3/7 weeks gestation with a 11-hour history of intermittent mild abdominal pain presented to our Emergency Department (ED). Upon initial history, the patient reported that she was diagnosed with fetal loss equivalent to 23 weeks gestation at the same day in a secondary hospital. A very low fibrinogen level was suggested for disseminated intravascular coagulation.

Results: Finally She discharged two fetuses which weighed 440g and 20g respectively. Few cases have been described in the literature demonstrating chronic disseminated intravascular coagulation in patients due to fetal loss for a very long time.

Conclusions: Few cases have been described in the literature demonstrating chronic disseminated intravascular coagulation in patients due to fetal loss for a very long time.

P0715
IMBALANCE OF ANGIOGENESIS ASSOCIATED CHEMOKINE NETWORKS IN SPONTANEOUS ABORTION

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Objectives: The role of angiogenesis and angiogenetic factors in pregnancy is well known, and it has been shown that chemokines and their receptors are implicated in pregnancy and abortion, but the role of chemokine networks in the development of placenta and decidua has not been elucidated. In the present study, we aim to examine the role of chemokine networks in the associated with pregnancy angiogenesis and the disorders that might lead to spontaneous abortion.

Method: Trophoblastic/placental tissue was collected from women with spontaneous abortion (n=15) and induced abortion (n=10) at the time of the therapeutic evacuation of the endometrial cavity. Tissues were homogenized and total RNA isolation was performed using TRIzol Reagent, following by cDNA synthesis from total RNA using PrimeScript™ 1st strand cDNA Synthesis Kit, according to the manufacturer’s instructions. Detection of mRNA expression for angiogenic and angiostatic cytokines was performed by conventional PCR, using KAPATaq™ PCR Kit, according to the manufacturer’s instructions and positive results confirmed and evaluated with real-time PCR.

Results: All samples from women with induced abortion, tested with conventional PCR for angiogenic chemokines, were found to express IL-8 mRNA, in contrast to the samples from spontaneous abortion, where the IL-8 mRNA expression was absent. From the group of angiostatic chemokines, the mRNA expression of the chemokine MIG (Monokine induced by interferon-g) was absent in all samples from induced abortion, while it was expressed in 5 out of 15 cases of spon-

P0712
ELEVATED HBA1C DURING PREGNANCY IN DIABETIC WOMEN AND LARGE-FOR-GESTATIONAL-AGE INFANTS – A STUDY IN SINGAPORE

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Objectives: Elevated HBA1C during pregnancy is known to be associated with an increased risk of having an LGA infant.
taneous abortion. Real-time PCR confirmed these results and demonstrated a statistical significance in the presence of MIG in spontaneous compared to induced abortion.

Conclusions: Women with spontaneous abortion, in contrast to women with induced abortion, were found to abolish IL-8 expression, a strong angiogenic factor, in trophoblastic/placental tissue, while a significant portion of them expressed the chemokine MIG, a strong angiostatic factor. These data support the evidence that an imbalance between angiogenic and angiostatic chemokines might be implicated in the pathogenetic mechanisms of spontaneous abortion.

P0716
INCIDENCE OF POSTERIOR REVERSIBLE ENCEPHALOPATHY SYNDROME IN ECLAMPSIA AND PREECLAMPSIA WITH NEUROLOGIC SYMPTOMS
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Objectives: Posterior reversible encephalopathy syndrome (PRES) is considered a primary central nervous system injury in patients with eclampsia. However, some studies showed PRES was also detected in some patients with severe preeclampsia and not all eclamptic patients developed PRES. We hypothesized the patients who presented neurologic symptoms such as severe headache, visual disturbance, impaired consciousness, and seizure developed PRES. Magnetic resonance imaging (MRI) was prospectively conducted in the patients who developed the neurologic symptoms during peripartum period to reveal the incidence of PRES in eclampsia and investigate whether the neurologic symptoms are the sign of PRES.

Method: This study is a prospective cohort study in a single medical center, TOYOTA memorial hospital. MRI was conducted within 24 hours from the onset in the patients who presented severe headache, visual disturbance, impaired consciousness, or seizure during peripartum period. A total of 47 patients were enrolled in this study between February 2007 and July 2014, but 3 patients were excluded because of a history of epilepsy and 7 patients were excluded because they were diagnosed with dissociative disorder. Maternal characteristics such as age and parity, blood pressure, and laboratory data at the onset were also examined.

Results: Eclampsia was diagnosed in 12 patients, and 11 eclamptic patients (91.7%) were complicated with PRES. On the other hand, among 25 patients who developed severe headache, visual disturbance, or impaired consciousness, 5 patients (20.0%) were diagnosed with PRES. Maternal age, parity, systolic and diastolic pressure, platelet count, aspartate transaminase, alanine transaminase, lactate dehydrogenase, and serum creatinine levels were not significantly different in the patients with or without PRES, but hematocrit was significantly higher in the patients with PRES. Severe hypertension: 160/110 mmHg or over, was observed in 14 of 16 patients with PRES and 13 of 21 patients without PRES.

Conclusions: PRES was frequently observed in the patients with eclampsia, but the presence of prodromal symptoms such as severe headache, visual disturbance, and impaired consciousness was not the good indicator of PRES. Clinical background and laboratory data except hematocrit was not useful to assess the risk of PRES. Although previous studies reported that PRES were observed in eclamptic or severe preeclamptic patients, this study indicates that PRES can occur even in patients without severe hypertension. Further study is necessary to more accurately assess the risk of the development of PRES.

P0717
EVOLUTION OF GESTATIONAL WEIGHT BY CURVE AND PREGNANCY OUTCOMES AMONG LATIN AMERICAN WOMEN
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Objectives: To evaluate the body mass index (BMI) change during pregnancy, classified according to the Atalah American Latin curve, and pregnancy outcomes.

Method: Cross-sectional population-based study in 1,126 women with information of weight gain from the beginning of prenatal care to delivery. The data report socio-demographic and obstetric history. Body mass indices (BMI) were calculated at the beginning of prenatal care and after delivery. The women were classified according to gestational age and Atalah’s curve with its classifications of low weight, adequate, overweight, and obese. The difference of the measures in the curve between the beginning of prenatal and after delivery were evaluated like a evolution of each women in terms of the increased. Odds ratio with a 95% confidence interval was used.

Results: Obese women according to the Atalah (prenatal) have more chance of cesarea and large gestacional age (OR 2.32 (1.61–3.44) and OR 3.90 (1.36–11.20)). Among pregnant women with an adequate initial weight rating, 22.5% became overweight and 0.4% obese. Among those classified as overweight, 23.5% evolved into obesity at delivery. Those women with adequate BMI (begining) that evolved increasingly in the delivery had OR 0.44 (0.24–0.95) of vaginal delivery and a OR 4.11 (1.01–16.83) of macrosomia (than those with the same BMI classification during pregnancy). Those classified as overweight (begining) and who evolved to obesity (delivery) had OR 15.00 (2.02–111.18) of macrosomia.

Conclusions: Women classified according Atalah as obese in the beginning of prenatal care, had a greater chance of cesarea and large for gestational age. Changes in BMI classification curve are associated with macrosomia for women classified as overweight or normal weight. Pregnant women of normal weight or who are overweight and who become, respectively, overweight or obesity at birth had a higher gestational weight gain than the obese. However, we should consider limiting the range of classifications of the obese, so as to place the latter in the same range even if there is a weight gain among them.

P0718
ASSESSMENT OF PLATELET REACTIVITY IN PREGNANCY USING A LIGHT SCATTERING METHOD
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Objectives: Traditional methods for the determination of platelet reactivity are cumbersome and require the level of expertise. Platelets in the citrated whole blood aggregate spontaneously in the presence of an enhanced platelet reactivity, forming larger sizes of spontaneous platelet aggregates (SPA) than that of a platelet. A new apparatus, automated hematology analyzer (CELL-DYN Sapphire, Abbott Diagnostics, Abbott Park, IL) was developed to allow the counting of number of SPAs with varied sizes using light scattering. This study aimed to investigate changes in platelet reactivity during pregnancy using this analyzer.

Method: This study was conducted after approval by institutional review board. A total of 192 blood samples from 73 pregnant women were examined. The 192 blood samples were consisted of 63, 45, 37, 22, and 25 samples obtained during 1st, 2nd, and 3rd trimesters of
pregnancy, and at postpartum day (PPD) 3 – 5 and 25 – 35, respectively. Number of SPAs was determined 15-, 30-, 45-, 60-, 75- and 90-min after phlebotomy for each blood specimen. Correlations between numbers of SPAs with levels of von Willbrand Factor, mean platelet volume (MPV), and fraction sizes of immature platelet were analyzed.

Results: Number of SPA increased significantly with advancing pregnancy trimester (15 min after phlebotomy: 41±51 for 1st trimester, 141±235 for 2nd trimester, and 249±338 for 3rd trimester), as well as increasing time after phlebotomy until 60-min after phlebotomy. (for example, in 3rd trimester: 249±338, 642±715, 777±680, and 814±729 for 15-, 30-, 45- and 60-min after phlebotomy, respectively). The number of SPAs decreased significantly to 192±461 (15-min after phlebotomy) on PPD 3–5. A log-transformed number of SPAs 15-min after phlebotomy was significantly correlated positively with MPV (r=0.45, p<0.01).

Conclusions: In the citrated whole blood obtained from pregnant women, spontaneous platelet aggregation occurred. As MPV reflects thrombopoiesis, the increased number of SPA may have reflected increased platelet reactivity. The new method was useful for the assessment of platelet reactivity.

P0719 THE INFLUENCE OF DISEASE ACTIVITY ON BIRTH OUTCOMES IN PATIENTS WITH INFLAMMATORY BOWEL DISEASE: META-ANALYSIS
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Objectives: There is a concern that active disease during pregnancy in women with inflammatory bowel disease (IBD) may be associated with adverse birth outcomes; however data dealing this topic have yielded conflicting results. We performed a systematic review and meta-analysis to evaluate the effect of disease activity at the time of conception or during pregnancy on birth outcomes in women with IBD.

Method: A systematic literature search of PubMed, EMBASE, Cochrane Library, Korean Med was conducted to identify studies that investigated the birth outcomes among pregnant women with IBD based on clinical disease activity. Disease activity was assessed at conception or during pregnancy. Various birth outcomes including premature birth, low birth weight, small for gestational age, spontaneous abortion, threatened abortion, still birth, Cesarean section, and chromosomal abnormality was measured. If significant heterogeneity was present, a random-effects model was used for data pooling.

Results: Eleven studies with a total of 4739 pregnant women with IBD were included. Regarding disease type, ten studies contained patients with Crohn’s disease (n=2191), and six studies contained patients with ulcerative colitis (n=2548). In women with IBD having active disease, the pooled odd ratios (ORs) for premature birth (OR 2.19, 95% CI: 1.72–2.80), small for gestational age (OR 1.86, 95% CI: 1.14–3.03), low birth weight (OR 2.21, 95% CI: 1.01–4.84), still birth (OR 2.38, 95% CI: 1.03–5.51), and threatened abortion (OR 2.41, 95% CI: 1.08–5.36) were significantly higher than those of women with IBD in remission.

Conclusions: Active disease at conception or during pregnancy in women with IBD was associated with adverse birth outcomes including premature birth, small for gestational age, low birth weight, still birth, and threatened abortion. Maintenance of remission at pre-conceptual phase and throughout pregnancy is crucial for better pregnancy outcomes in these patients.

P0720 DIFFERENCES IN PERINATAL AND NEONATAL CHARACTERISTICS BETWEEN EARLY- AND LATE-ONSET PREECLAMPSIA AND MATERNAL OBESITY AND NORMAL WEIGHT WITH PREECLAMPSIA
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Objectives: Recent reports have shown there may be two different entities to consider when investigating the pathophysiology of preeclampsia. Perinatal characteristics between early- and late-onset preeclampsia and between non-obese and obese preeclampsia patients to investigate their effects on fetal and neonatal growth were examined.

Method: A cross-sectional study of 108 pregnant women with preeclampsia, who visited Okayama University Hospital from 2009 to 2013. The subjects were retrospectively compared in terms of age, medical/family history, BMI, weight gain during pregnancy, complications, weeks of delivery, neonatal body weight and BMI at birth, fetal growth restriction, small for gestational age, pathological findings in the placenta, and infant’s weight at 1 month after birth.

Results: When perinatal characteristics were compared between early-onset and late-onset preeclampsia, neonatal body weight (p=0.001) and BMI (p=0.0003) were significantly lower and the extent of FGR (p=0.008) and the frequency of SGA (p=0.009) were higher in early-onset group compared with late-onset group. FGR and SGA occurred more frequently in non-obese group (p=0.006 and 0.046, respectively). Women in non-obese group also had a lighter placental weight (p=0.003) and a higher incidence of placental pathological findings (p=0.02) than those in obese group. There was a higher frequency of SGA in patients with placental pathological findings compared with those without placental pathological findings (p=0.003).

Conclusions: There are significant differences in fetal and neonatal growth, depending on the onset period, maternal obesity, and pathological findings in the placenta in preeclampsia.

P0721 POOR GLYCEMIC CONTROL IN PREGNANT WOMEN ATTENDING PAKISTANI PUBLIC TERTIARY CARE UNIT
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Objectives: This study aimed to compare the clinical profiles and glycemic control of pregnant women in tertiary care settings, and to determine the associated factors of poor glycemic control in these women.

Method: Data will be collected from public tertiary care unit from 1 April to 30 September 2015. All Pakistani women aged 18 years old and above diagnosed with poor glycemic control for at least 1 year will be included in the analysis. The target for glycemic control (HbA1c <6.5%) is in accordance to the recommended national guidelines.

Results: Data will be analysed by using SPSS, and result will be collected.

Conclusions: Conclusion will be made after the result. overall obstetricians and physicians need to pay more attention to these patients especially for those with risk factors.
P0722
OUTCOME OF PREVENTION OF MOTHER TO CHILD TRANSMISSION OF HIV INFECTION (PMTCT) IN SOKOTO, NORTHERN NIGERIA

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Objectives: The aim of the study is to determine the infection rates of the babies following PMTCT intervention.

Method: This is a five year prospective study of all HIV positive women in the PMTCT programme of Usman Danfodiyo University Teaching Hospital Sokoto, North Western Nigeria. The baby’s HIV status was tested with PCR for HIV DNA at 6 weeks and 18 months. All the mothers received anti retro viral drugs (ARV) during pregnancy including prophylaxis for the baby at birth.

Results: There were 13735 deliveries during the study period out of which 127 women were in the PMTCT programme, giving a prevalence of 0.92%. Transmission rate was 13 (10.2%) and 20 (15.7%) at 6 weeks and 18 months respectively. All mothers received highly active anti retro viral therapy. The entire baby’s were given ARV post exposure prophylaxis. Main mode of infant feeding was breast feeding in 72 (56.6%) while 55 (43.3%) used infant formula. Among the infected babies 6 and 11 babies were breast fed at 6 weeks and 18 months respectively. The 7 babies that became positive at 18 months were breastfed.

Conclusions: Transmission is high during breast feeding despite ARV prophylaxis. It is therefore recommended that all HIV exposed babies should be fed with infant formula were affordable.

P0723
ATALAH’S CURVE EVALUATION OF ADEQUACY OF WEIGHT IN GESTATION IN A NEW POPULATION. IS THERE NEED FOR REASSESSMENT?

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Objectives: To evaluate the Atalah’s curve in fresh population according to weight gain during pregnancy.

Method: Prospective study in 333 charts of women. The information about height, weight and gestacional age were collected in each medical visit during the pregnancy. This data generate a total of 2529 measures. We’ve calculated the percents 25%, 50% and 75% in each gestacional age evaluated for body mass index. Using these values like a cutoff, we’ve classified the women in low weight, normal, overweight and obese in the beginning of prenatal care, in the middle (around 20 weeks) and in the delivery. The women also were classified using Atalah’s curve. We’ve used McNemar test and kappa (a = 0.05).

Results: In the beginning of prenatal 75.1% of women were classified in the same level by Atalah’s and by recent parameters, 14.4% were classified like normal or overweight by Atalah’s and like overweight and obese following recent parameters. Also 10.2% were classified in normal by Atalah’s and in low weight by recent parameters (p<0.0001, kappa 0.78 (CI: (0.74–0.82))). In the middle of pregnancy 79.8% were concordant and 11.4% (p<0.0001, kappa 0.83 (CI: 0.79–0.86)) were underestimated by Atalah’s (comparing with new parameters), and in delivery these numbers were 78.5% and 8.5% respectively (p<0.0001, kappa 0.82 CI: (0.78–0.85)).

Conclusions: The Atalah’s curve tends to classify differently around 25% of women at the beginning and in the middle of the pregnancy, most of the cases were underestimated. Although the data have not been used in a probabilistic model but empirical to the formation of the new parameters, the update of the curve values and the national parameter appears necessary.

P0724
ACUTE HEPATIC STEATOSIS IN PREGNANCY: A CASE REPORT

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Objectives: To evaluate the incidence, the difficult in diagnosis, treatment and prognosis, as well as describe the case of a pregnant patient admitted to the service that developed the condition during pregnancy.

Method: Case report occurred in Mato Grosso do Sul (Brazil). Information was obtained through review of medical records, pregnant interview and literature review. The resolution of the case was after delivery.

Results: The patient presented hypogastric pain, generalized itching, nausea, jaundice and anasarca. She developed acute renal failure and disseminated intravascular coagulation (DIC). Because of DIC, the patient had twice reopening of the abdominal wall (on the 3rd and 7th postoperative c-section) and video-laparoscopy on the 14th postoperative. After three days of delivery, laboratorial exams showed great improvement. Despite numerous assumptions have been made about its etiology, its mechanism is still unclear. The AHSP clearly is not an infectious disease nor metabolic. No familial cases and subsequent pregnancies have been normal in women who survive the disease and later become pregnant.

Conclusions: Acute hepatic steatosis in pregnancy is a rare case, difficult to diagnose with high maternal and fetal mortality. Because it is serious illness, the most common treatment includes fast diagnosis, the immediate termination of pregnancy and the early referral to specialist services in liver diseases, which occurs wish the first signs of hepatic. Maternal death is still around 25% and is reported as a result of sepsis, aspiration, renal failure, circulatory collapse, pancreatic and gastrointestinal bleeding. Treatment is symptomatic and, when it fails, liver transplantation is an alternative, this occurs in about 2% of the cases of AHSP.

P0725
ACTIVE MANAGEMENT OF ISOLATED OLIGOHYDRAMNIIOS AT PRETERM: A CASE STUDY AND LITERATURE REVIEW

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Objectives: There are few studies available about the risks, outcomes and management of isolated oligohydramnios at preterm, some of them leading to conservative clinical decisions. This case study brings these risks to attention, with the objective of supporting and showing the importance of interventional and active management of this condition.

Method: Case study: all data were collected from the patient’s medical records, which occurred after formal authorization for this case study. The study was approved by the Ethics Committee of the maternity hospital where the patient received medical care.

Literature review: the research was performed using MedLine/ PubMed, LILACS/SCIELO, Cochrane and Scopus databases, looking for national and international studies, using key words: “oligohydramnios”, “isolated oligohydramnios” and “idiopathic oligohydramnios”. Studies with determined cause for oligohydramnios, such as: pulmonary or urinray tract malformations, premature rupture of membranes and intrauterine growth restriction were excluded from the study.

Results: FZRR, 31 years old, nuliparous, second gestation (1 previous miscarriage), 33 weeks. No prenatal interferences. However, third trimester ultrasounds revealed Amniotic Fluid Index (AFI) decrease from 147mm to 47mm, with no evidence of rupture of membranes or other apparent causes. The patient was admitted and started standard treatment. Amniotic fluid scored zero on biophysical profile and cardiotocography indicated decelerations, leading to
the indication of a cesarean section. Absence of amniotic fluid was noticed during the surgery. The newborn was admitted to NCU (due to prematurity) for 10 days, with no further intercurrences. Anatomopathological exam of the placenta: Chronic Intervillous Hypoxemia.

Conclusions: Due to the nearly absence of amniotic fluid noticed during surgery, this case could not have presented satisfactory outcomes if caesarean delivery was not indicated. The anatomopathological of the placenta result – chronic intervillous hypoxemia – could have led to fetal distress and perinatal complications if gestation was prolonged. The reviewed literature confirmed the risks associated to expectant management and indicated risks of premature labor complications on active management. However, based on this case, expectant management must be as much cautious as active management, since the purpose of obstetrical care is providing successful gestations.

P0726
INFERIOR LIMB OSTEOSARCOMA DIAGNOSED IN A PREGNANT ADOLESCENT DURING HER THIRD TRIMESTER
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Objectives: To report the course and treatment of a third trimester pregnant teenager with a recent diagnosis of osteosarcoma in her lower limb.

Method: We report a 17 year old, primigravida, in her 38th week of pregnancy who arrived to the emergency room complaining of a fast growing mass in her inferior right limb. Pain, edema and claudication had developed in the past five months upon her arrival. With no previous medical or prenatal care. She was admitted to the Obstetric Ward. After the evaluation of oncology, pathology and traumatology, interruption of gestation was performed via cesarean section with a low transverse incision. Obtaining a male product, weighing 2,590 g, height 48 cm, Apgar 8/9, gestational age of 37 weeks.

Results: A MRI of the right knee reported lesions in the distal portion of the femur, compatible with osteosarcoma, with involvement of all the muscular compartments. A biopsy was performed confirming osteosarcoma. She declined leg amputation and was treated after pregnancy with 3 cycles of Cisplatin/Doxorubicin, with an adequate reduction of the tumor's size, with no signs of acute toxicity. Two months after the start of chemotherapy she developed cough and dyspnea, and was diagnosed with lung metastasis. She died of acute respiratory failure afterwards.

Conclusions: Osteosarcoma is the most common primary bone cancer, it is rarely associated with pregnancy. The diagnosis and treatment have to be adjusted to each patient. The complete surgical excision reassures the best prognosis. The stage of the tumor, metastasis, type of chemotherapy, anatomic localization and size of the tumor affects the prognosis. A multidisciplinary approach must be taken, tailored to the mother’s health, balancing the needs of a developing fetus, assuring an appropriate oncologic.

P0727
LYMPHOID CELLS PHENOTYPIC PROFILE ON SYSTEMIC AND LOCAL LEVELS IN PREGNANT WOMEN WITH HYPOTHYROIDISM
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Objectives: Investigate the quantitative and functional indices of different populations and subpopulations of lymphocytes in mother-placenta system's blood of pregnant women with hypothyroidism in the iodine deficiency region.

Method: It was used direct immunofluorescence of membrane surface antigens to lymphocytes by flow cytometry.

Results: At the peripheral level marked increase CD3, reduction of cytotoxic and natural killer cells, with increasing cell activation markers, an increase an apoptotic index. At the local level was found decrease apoptotic index.

Conclusions: Disorders of immune cells phenotypic profile from peripheral and cord blood in comparison with the control occur in pregnant women with hypothyroidism, which persists even after correction with thyroid hormones.

P0728
A CASE OF GESTATIONAL CHORIOCARCINOMA WITH MULTIPLE UNCOMMON SITES OF METASTASIS PRESENTING IN A VIABLE PREGNANCY
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Objectives: Choriocarcinoma is a malignant tumour of the syncytiotrophoblast and cytotrophoblast with common metastases to the vagina, lung, brain and liver. The disease presenting during a viable pregnancy is extremely rare. We report a rare case of gestational choriocarcinoma in a pregnant woman with metastatic disease to atypical sites, the investigations leading up to the diagnosis and the management of her pregnancy and disease.

Method: A literature search was conducted using Pubmed, Medline and Cochrane Library with the terms [choriocarcinoma] OR [metastatic choriocarcinoma] OR [gestational choriocarcinoma] AND [pregnancy] OR [intrauterine pregnancy] OR [viable pregnancy]. This yielded 45 case reports, with the oldest dating back to 1907. Six cases reported metastases to less common sites i.e. breast, thyroid, spleen, intestine, myocardium, pancreas or bladder. We believe our case is the second case report on this disease from Australia and the only case of metastatic gestational choriocarcinoma with bony involvement.

Results: A 33-year-old woman who was 33 weeks pregnant presented with hemoptysis and cough. Initial imaging demonstrated a large right lower lobe mass extending into the inferior pulmonary vein into the left atrium, suspicious of malignancy. She was delivered at 34 weeks and placental histology confirmed choriocarcinoma. She was diagnosed with FIGO stage IV choriocarcinoma, with cerebral, pericardial, hepatic, adrenal, cutaneous, breast and bony metastases and was treated with the EMA-CO protocol. Her prognosis remained poor as new cerebral and bony metastases was found on reimaging. Her child was not affected by the disease and made good progress despite his prematurity.

Conclusions: Gestational choriocarcinoma concurrent with a viable intrauterine pregnancy is a very rare occurrence. In practice, the diagnosis of choriocarcinoma in pregnancy is only likely to be made when there is histological or radiological evidence of the disease. The diagnosis should, however, be considered where pneumonic symptoms are resistant to initial treatment, as the most common metastatic site for choriocarcinoma is the lung. The decision to deliver the fetus in such circumstances is a delicate strike of balance between the risks of delay in treatment and prematurity of the fetus, and the benefits of prolonging the pregnancy.

P0729
SUBCLINICAL CENTRAL DIABETES INSIPIDUS UNMASKING DURING PREGNANCY. A CASE REPORT
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Objectives: To report the clinical presentation and management of a patient who developed Diabetes Insipidus, during her peripartum period.
Method: Early diagnosis and initial management of Diabetes Insipidus that unmasked during a cesarean delivery at a secondary care Health facility in rural India, followed by appropriate referral and further management in a super specialty tertiary care Hospital.

Results: A 32 year old G3P1A1 with an unremarkable antenatal course underwent emergency cesarean delivery due to protracted descent in active phase of labor. She had severe atonic postpartum hemorrhage which responded to uterotonic. However, she developed intense thirst and polyuria in the postoperative period which lead to further evaluation that confirmed the diagnosis of Diabetes Insipidus. She responded well to Desmopressin nasal spray for 3 months, following which the patient self-discontinued medication. Four years following the diagnosis, she continues to have mildly elevated serum osmolality with reduced urine osmolality, although asymptomatic.

Conclusions: Awareness and prior knowledge of this rare medical disorder may lead to early recognition and appropriate management thereby avoiding serious maternal morbidity and even mortality.

P0730
5 YEARS REVIEW OF MATERNAL NEONATAL OUTCOME ON ECLAMPSIA IN PROF KANDOU PROVINCIAL HOSPITAL MANADO, INDONESIA

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Objectives: Aims of the study is to evaluate maternal and neonatal outcome in patient with eclampsia and the factors affecting the outcome.

Method: A retrospective epidemiological study was undertaken in the department of obstetrics and gynaecology Prof Kandou Hospital Manado, Indonesia during the period of January 2010 to December 2014. Patient who is diagnosed with eclampsia or developed eclampsia during hospital stay were included in the study. Statistic analysis using Pearson Chi square and Fisher exact test.

Results: During this period the incidence was 38 per 18576 deliveries (0.2%). Most (81.6%) has already developed eclampsia before reach the hospital. Eclampsia happened most frequently on primigravida and most in the age range of 20–35 years old (71%), the gestational age 37–42 weeks (52.6%). The highest blood pressure reach 260/140 mmHg. The most complication was HELLP syndrome (10.5%) with the mortality was 7.5%. Most was delivered by cesarean section (68.4%), with the neonatal outcome was 9 fetal death and 29 life birth. There's no statistical difference in age, parity and blood pressure (p>0.05) between eclampsia with and without additional complication.

Conclusions: Eclampsia still had poor maternal neonatal outcome and unpredictable.

P0731
PREVALENCE OF CANDIDIASIS, TRICHOMONIASIS AND BACTERIAL VAGINOSIS AMONG PREGNANT WOMEN WITH VAGINAL DISCHARGE

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Objectives: The current study was conducted with the objectives to find out the occurrence of candidiasis, bacterial vaginosis and trichomoniasis in abnormal vaginal discharge of pregnant woman, to co-relate between the clinical findings of abnormal vaginal discharge and presence of actual pathology.

Method: This cross sectional study was done in the Out Patient Department of Obstetrics and Gynecology of a tertiary Hospital, Dhaka from July to December 2009. All the pregnant women with the complaints of vaginal discharge were included. Data were collected by interviewing, examining and laboratory investigations. Three consecutive samples of vaginal discharge were collected at the same time from each patient for laboratory investigation. With the 1st sample microscopic examination was done to detect Trichomonas vaginalis, pus cells, budding yeast cells and clue cells. With the 2nd sample Whiff test and with the 3rd sample gram staining and microscopy was undertaken.

Results: One hundred pregnant women with vaginal discharge were enrolled in this study and majority were in the age group of less than or equal to 25 years (77.0%) with a mean of 24.6±6.48 years (range 18–43 years). Vaginal itching was present in 55%, no foul smelling discharge in 68%, homogenous vaginal discharge in 28%, granular vaginal discharge in 59%, mucoid in 13%, thick fluid like vaginal discharge in 46% and curd like discharge in 35%. Whiff test for Gardnerella vaginalis was positive in 38% cases and in 39% cases pseudohyphae of Candida albicans were found.

Conclusions: The prevalence of bacterial vaginosis, trichomoniasis and vaginal Candidiasis was found to be quite common in pregnant women. Proper diagnosis and treatment of vaginal discharge in pregnant women should be done to prevent adverse pregnancy outcomes.

P0732
IMPACT OF MATERNAL THYROID DISORDER ON NEONATAL THYROID FUNCTION

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Objectives: To present the neonatal thyroid status of mothers on thyroid replacement in a multi speciality children's hospital.

Method: Retrospective review of case records of neonates with TSH ≥ 6 mIU/ml born to mothers who are on thyroid replacement.

Results: Case records of 27 babies were reviewed. The median neonatal TSH was 15.6 mIU/ml; None with clinical symptoms; median birth weight 2.2 kg.

The thyroid disorders in the mothers include pre pregnancy Hashimotos thyroiditis (n=7), pregnancy hypothyroidism (n=18), Graves disease (n=1) and Post thyroidectomy (n=1). To establish the etiology, antibody testing was performed in three babies, positive in two. The median maternal TSH was 4.3 mIU/ml and 13.3 mIU/ml in mothers with pregnancy hypothyroidism and Hashimoto's thyroiditis. The elevated TSH was picked up on repeat thyroid screening in 7 babies. There was no correlation between maternal and neonatal TSH.

Conclusions: Further research is needed to determine the impact of maternal thyroid status on neonatal thyroid function in the light of the new maternal TSH screening guidelines. Also, whether, direct versus sampling is preferable to neonatal screen in neonates with maternal thyroid disorders needs to be ascertained on a larger sample.

P0733
METABOLICOS STUDY OF PLASMA PROFILES OF PREGNANT WOMEN WITH PRETERM LABOR

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Objectives: Preterm labour is defined as birth at less than 37 completed weeks of gestation. According to WHO (November, 2014) every year, an estimated 15 million babies are born preterm and this number is rising. Metabolomics fingerprinting is a semi quantitative approach to find metabolic changes in biological samples and it has proven its potential of finding novel biomarkers of under diagnosed diseases. Recently metabolomic approach has become very popular in clinical research. The aim of the study was to analyze metabolic plasma profiles of pregnant women and to find changes of metabolites concentrations which could identify women with preterm labor.
Method: Using liquid chromatography followed by high resolution mass spectrometry (LC-Q-TOF-MS) we have studied plasma of three groups of pregnant women: preterm labor without clinical chorioamnionitis (n=61), false preterm labor (n=48) and term labor (n=27). Plasma samples were deproteinized, filtered and analysed in both polarities modes under the same chromatographic conditions. LC-Q-TOF-MS data analysis was performed by chemometric tools. Univariate and multivariate statistics was applied to find metabolic changes between conditions and build a PLS-DA predictive model with satisfying selectivity and sensitivity. Selected markers were identified by MSMS analysis.

Results: LC-MS data analysis resulted in finding 89 statistically significant metabolites among plasma profiles. Among others there were differences between compared groups in concentrations of: lysophosphatidylcholines, fatty acids, some amino acids (lysine, arginine, histidine, phenylalanine), and several hormones or hormones metabolites (progesterone, estrone sulphate, pregnenolone sulphate).

Conclusions: Metabolomic approach revealed changes in metabolite concentrations in plasma of women between studied groups and some of them may be considered as potential predictors of the preterm labor.

P0734
FETO-MATERNAL OUTCOME OF DIABETES MELLITUS IN PREGNANCY AT THE UNIVERSITY OF PORT-HARCOURT TEACHING HOSPITAL, NIGERIA

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Objectives: The aim of the study was to determine the prevalence of pre-gestational and gestational diabetes mellitus and to highlight its associated maternal or perinatal morbidity and mortalities at the University Of Port-Harcourt Teaching Hospital, south-south Nigeria.

Method: This was a retrospective cross-sectional study of all cases of diabetes mellitus in pregnancy managed in the labour ward of the University Of Port-Harcourt Teaching Hospital from January 1, 2008 to December 31, 2012. The delivery records for the study period were reviewed; their data collected, entered and analyzed using the SPSS version 17.0. The results obtained were represented in percentages, means, bar charts, pie chart, line pictograms and frequency tables.

Results: There were a total of 122 cases of diabetes mellitus out of 14,521 deliveries within the study period; giving a prevalence of 0.84%. There were 21 cases of pre-gestational DM and 101 cases of GDM giving a prevalence of 1.45% per 1000 deliveries and 6.96 per 1000 deliveries respectively. The mean birth weight of infants was 3.75kg (0.76kg). There were 60 cases (49.2%) of fetal macrosomia. There were 11 perinatal mortalities giving a perinatal mortality rate of 90.2 per 1000 deliveries. The caesarean delivery rate was 89.3%. There were no maternal deaths or congenitally malformed babies.

Conclusions: Diabetes mellitus in pregnancy is associated with significant adverse maternal and neonatal outcomes. Patients at risk should be encouraged to attend preconception clinics and register early for antenatal care.

P0735
EVANS' SYNDROME AND PREGNANCY: A CASE REPORT

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Objectives: To report a case of a pregnant patient with a personal history of Evans’ syndrome, complicated by severe hemolytic crisis at 31 weeks’ of gestational age.

Method: We present the case of a 20-year-old patient, primigravida, with a personal history of Evans’ syndrome diagnosed in childhood, controlled and treated at the Pereira Rossell Hospital in Montevideo, Uruguay.

Results: At 31 weeks’ gestational age she is admitted to the hospital with a diagnosis of severe anemia and universal jaundice. Concomitantly diagnosis of Intrauterine Growth Restriction is performed. Medical treatment is initiated with intravenous high-dose corticosteroids, intravenous immunoglobulin and transfusion of red blood cells and platelets. Termination of pregnancy is decided because of maternal and fetal risk. A cesarean section is performed, obtaining a vigorous newborn, with very low birthweight, who installed jaundice in exchange-transfusion range. Maternal postpartum evolution was good, with mild anemia and thrombocytopenia.

Conclusions: Evans’ syndrome is the coexistence of immune thrombocytopenia with autoimmune haemolytic anaemia. It has a very low incidence during pregnancy. The effects of this syndrome in the fetus and newborn are unknown, with a small number of cases reported in the literature. It is a challenge for treatment during pregnancy and when making obstetric decisions. The interruption of pregnancy in our clinical case was a valid therapeutic option to reduce both maternal and fetal complications.

P0736
CLINICAL PROFILE OF ASTHOMATIC WOMEN IN PREGNANCY

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Objectives: To evaluate the clinical characteristics of asthmatic pregnant women in Recife, Brazil.

Method: Cross-sectional study among November 2013 and December 2014 developed in Federal University of Pernambuco, Brazil. Trained researchers asked asthmatic women about pregnancy and asthma related factors. Asthma was classified in severe (moderate or severe persistent) or non severe (intermittent or mild persistent; controlled or non controlled (<16 points in Asthma Control Test score); users of inhaled corticosteroids (ICS) or non users. Student’s t-test or Pearson’s chi-squared test were employed when appropriate. Two-tailed p-value <0.05 indicated statistical significance.

Results: Fifty three asthmatic women were enrolled: mean age of 25.6±5.6 years, mean gestational age 21.6±1.3 weeks, and 10.3±2.7 years of education. Half of them were primigravid (28 women, 52.8%); 32 (60.4%) had severe asthma, 33 (62.3%) were controlled and 39 (73.6%) were ICS users. The majority (37, 69.8%) believed that asthma symptoms get worse. Opinion about worsening was related to the same perception in previous pregnancy (p=0.03), to a higher gestational age at booking (18.23 weeks, p=0.01), and to severe asthma (p=0.04), but was not associated to asthma treatment before pregnancy (p=0.70) or drug suspension at pregnancy diagnosis (p=0.65).

Conclusions: Asthma is the most common clinical condition in pregnancy and classically a third of women would present worsening of symptoms. In spite of its importance, few clinicians consider an adequate evaluation during prenatal visits and asthmatic patients are seldom offered the chance to perform a spirometry. Thus exact classification is usually never considered, even though severe asthma and bad symptoms control are related to poor gestational outcomes. It is crucial to start antenatal visits as soon as pregnancy is diagnosed and never interrupt the maintenance medication.

P0737
QUALITY OF LIFE IN ASTHOMATIC PREGNANT WOMEN

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Objectives: To describe the epidemiological profile and the quality of
life related to health in asthmatic pregnant women under treatment at a public university hospital in Brazil.

**Method:** A descriptive cross-sectional study from March, 2013 to May, 2014 with pregnant asthmatic women at antenatal clinics of Federal University of Pernambuco (Recife - Brazil). Asthma was classified in intermittent or persistent (mild, moderate, severe). Disease control was determined by the Asthma Control Test (ACT) and was considered controlled if score >20. The quality of life (QoL) was assessed by the St. George’s Respiratory Questionnaire (SGRQ), and it was considered impaired when score >10%. Student’s t-test and ANOVA test were used for statistical analysis of QoL compared to clinical and epidemiological factors. P-value <0.05 was considered significant.

**Results:** Fifty one asthmatic pregnant women were included. The mean gestational age was 24.4±6.8 weeks, 51% were up to 25 years old (p=0.001), and 41.2% (p=0.005) had severe persistent asthma. Most reported worsening of asthma symptoms during pregnancy (86.3%, p<0.001) and 60.8% of women (p<0.001) had uncontrolled disease. Pregnant women with intermittent asthma had better SGRQ scores compared to other patients (SGRQ general average: 32.5% ± 19.7, p<0.001). Patients with controlled asthma also had better QoL (SGRQ general average: 30.1% ± 11.9, p<0.001).

**Conclusions:** Asthma is probably the most frequent clinical condition in pregnancy and studies about quality of life are scarce in this population. The obstetrician must be aware about asthma classification, disease control, and women quality of life to offer a proper antena
cal care. Controlled and less severe asthma are associated with better health-related quality of life in pregnant women. However, further studies are needed with this particular group of patients to evaluate the influence of the pregnancy on clinical course of asthma.

**P0738**

**DILEMMAS IN MANAGEMENT OF ACUTE CORONARY SYNDROME (ACS) IN PREGNANCY**

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**Objectives:** ACS is rare in pregnancy, but carries a high maternal mortality rate. A recent UK Obstetric Surveillance System (UKOSS) reported an estimated incidence of 0.7 per 100,000 pregnancies. The relative risk of myocardial infarction (MI) in pregnancy is 3-4 times in excess of the age specific rate of MI per 100,000 women in the reproductive age group, with coronary artery dissection being the more common cause in pregnant women with no prior risk factors instead of an atheroma. Despite the high importance, there is still no specific guidance for the management of ACS in pregnancy.

**Method:** We present the case of a 35-year-old, normal BMI, otherwise fit and well, low risk multigravida with ACS (NSTEMI) confirmed via ECG and elevated Troponin levels. Coronary angiogram revealed dissection of the Left Circumflex artery with thrombus in the Left Anterior Descending artery and good LV systolic function on echocardiogram. The multidisciplinary consensus was management with dual anti-platelet and anticoagulant therapy and arrange for planned caesarean section (CS) 2 weeks following the MI. Patient had an uncomplicated spontaneous normal vaginal delivery at 32 weeks gestation, however had a further NSTEMI 3 days postpartum.

**Results:** Safety and bleeding risk of anticoagulation and antiplatelet therapy, foetal-maternal radiation risk of Primary Coronary Intervention (PCI) and angiography, place/timing/mode of delivery (MOD) are some of the management dilemmas in pregnancy. Dual therapy is more effective, but raises the (dose-dependent) bleeding potential - in our case the patient developed a rectus sheath haematoma. The foetal-maternal radiation effects of PCI/angiography are clinically insignificant. Delivery within two weeks of ACS increases mortality. There’s no preferred MOD, but CS is more predictable, with less haemodynamic fluctuations compared to vaginal delivery. Controlling blood loss reduces hypotension and anaemia which are detrimental to myocardial function.

**Conclusions:** ACS in pregnancy is a rare but has a high rate of maternal mortality. Therefore, early recognition and multidisciplinary team management approach is crucial to having a positive outcome for both mother and fetus.
**P0740**

**THROMBOTIC THROMBOCYTOPENIC PURPURA IN PARTURIENT**

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**Objectives:** Thrombotic thrombocytopenic purpura (TTP) is a rare, life-threatening disorder with an estimated incidence of 4–11 patients per million population. Its occurrence during pregnancy causes higher maternal and fetal mortality. We describe the management of a parturient that was diagnosed to have TTP in the immediate postpartum period after having normal vaginal delivery under epidural analgesia.

**Case history:** A 41 year old G2P1 parturient was admitted to the labour floor at 39 weeks of gestation. She had pregnancy induced hypertension at 24 weeks of gestation and was on antihypertensive medications. Her physical exam was unremarkable. On admission, her laboratory investigations were within normal limits except the platelet count of 85,000/cu.mm. The parturient had epidural analgesia and uneventful delivery. However, the patient's platelet count dropped to 60,000/cu.mm early after delivery and then to 23,000/cu.mm on 1st post-delivery day (PDD). The diagnosis of TTP was made based on clinical and laboratory work up (Table 1). Specifically, ADAMTS 13 activity was found to be <2.5% of normal value.

**Discussion:** The nature of TTP was discussed with the parturient and plasmapheresis was instituted on 2nd PDD. Blood and blood products were transfused for 2 weeks with close monitoring of neurological status and signs of sepsis. The epidural catheter was left in situ and was removed on 5th PDD when the platelet count was 105,000/cu.mm and ADAMTS 13 activity was >10%. She was discharged on 15th PDD. A warning card documenting the complications that she had during her post-partum period was issued.

**Conclusions:** Pregnancy increases the risk of TTP relapses between 12 to 61%. The follow up of ADAMTS 13 activity during the pregnancy may identify the patients with the greatest risk for relapse. Plasma exchange is the cornerstone for the treatment of patients with frank TTP but its role to prevent relapse in patients with high risk has not yet been elucidated.

**Reference:**
[1] Raman R, Yang S. British Journal of Hematology 2011; 153:273–285.

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**P0749**

**OBSTETRIC AND ONCOLOGIC MANAGEMENT OF A PATIENT DIAGNOSED WITH BREAST CANCER DURING THE FIRST TRIMESTER OF PREGNANCY: CASE REPORT**

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**Objectives:** Demonstrate the obstetric and oncologic management of a 33 year old patient in her 8th week of pregnancy who is diagnosed with poorly differentiated ductal infiltrating adenocarcinoma (IDC), presence of an intrammamary positive lymph node, positive estrogen receptors (65%), positive progesterone receptors (25%), negative Her2/neu.

**Method:** Review of the clinical record of a patient diagnosed with breast cancer during pregnancy who received medical-surgical management through gestation. The clinical record was reviewed for case report documentation and literature revision.

**Results:** Clinical detection of a breast mass during first the obstetric appointment, in the 8th week of gestation of the first trimester, which is later classified as BIRADS-4. Surgical management is performed with modified radical mastectomy and sentinel lymph node with technetium-99 in week 13 of pregnancy. Chemotherapy is initiated at week 19 of gestation with doxorubicin 100 mg and ciclofosamide 1000 mg. Cesarean delivery is performed at week 37 obtaining a female neonate of 2,626 g and APGAR 9 at 5 minutes. Breast-feeding is avoided through puerperium and paclitaxel is initiated at 120 mg per day.

**Conclusions:** As fertile women nowadays delay pregnancy, situations in which cancer occurs during pregnancy become more common. Management of an obstetric patient with cancer is multidisciplinary and initial clinical evaluation is essential for the early detection of pathologies that could endanger life. Follow-up of a pregnant patient with cancer must be close with special attention to the fetal well-being. Medical-surgical management is safe during gestation and should not be postponed for the clinical state of pregnancy.

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**P0742**

**COMPLICATIONS AND MANAGEMENT OF PREECLAMPSIA AND ECLAMPSIA IN DOUALA GENERAL HOSPITAL**

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**Objectives:** The aim of the study was to analyse the complications and therapeutic aspects of the severe preclampsia and eclampsia in the departments of obstetrics and intensive unit of Douala general hospital.

**Method:** It was a retrospective study carried out in the 2 services from January 2005 to August 2011. All files of patients admitted for severe preclampsia and eclampsia were included. Complications and therapeutic aspects were studied. Factors associated to death were identified by chi square test and exact Fisher test.

**Results:** Overall, 158 patients were included with the mean age of 31.4±5.4 years. The most observed complications were acute renal failure (13.2%), HELLP syndrome (12.6%), infection (8.2%), placenta abruptio (3.8%) and acute pulmonary edema (3.8%). Delivery was mainly by caesarean section (57.8%). Diazepam was the most used anticonvulsant (57.5%) and Nicardipine the most used antihypertensive drug (69.6%). The maternal and perinatal mortality was 4.4% and 21.5% respectively. The occurrence of acute renal failure and acute pulmonary oedema were highly associated to death (p=0 and 0.0005).

**Conclusions:** Maternal and fetal mortality and morbidity due to severe pre-eclampsia and eclampsia remain high in our milieu. We then need to ameliorate treatment of these patients.

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**P0743**

**PERIPARTUM CARDIOMYOPATHY: A CASE REPORT**

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**Objectives:** Peripartum cardiomyopathy is a non familial form of heart failure presenting with left ventricular systolic dysfunction towards the end of pregnancy or in the months following delivery, where no other cause of heart failure is found. It's a relatively rare condition, not well knownby clinicians. The aim of this poster is to review the current knowledge of its pathophysiology, therapeutic strategies and prognosis, as well as new treatments and future directions.

**Method:** We report a case of peripartum cardiomyopathy in a previously healthy postpartum woman, followed by a bibliographic review on the disease.

**Results:** A 20 year old woman with no previous history of cardiovascular disease presented to the emergency department 2 months after a cesarean section. She reported dyspnea and chest pain and was diagnosed with congestive heart failure due to peripartum cardiomyopathy. The patient was refered to an intensive care unit where
her condition improved and was discharged 1 week after she presented.

Conclusions: Peripartum cardiomyopathy is a relatively rare disease, which can have devastating consequences if an early diagnosis and correct treatment is not provided. This patients are diagnosis and therapeutic dilemmas to physicians, that are not always aware of this rare but interesting condition.

P0744
SPONTANEOUS BILATERAL CHYLOTHORAX IN PREGNANCY: A CASE REPORT
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Objectives: Chylothorax refers to the presence of lymphatic fluid in the pleural space secondary to leakage from the thoracic duct or one of its main tributaries. Chylothorax complicating pregnancy is a rare condition and is usually associated with labour. The aim of this poster is to review the current knowledge of its etiology and pathophysiology of this rare disease.

Method: We report a case of spontaneous bilateral chylothorax in a pregnant woman, followed by a bibliographic review on the etiology and pathophysiology of this rare disease.

Results: A 42 year old pregnant woman, with no previous history of cardiovascular or respiratory disease, presented to the emergency department with dyspnea and chest pain, where she was admitted and initially treated for a respiratory infection. She was later diagnosed with a bilateral progressive chylothorax, with bad response to treatment. A cesarean section was made at 35 weeks gestation. The etiology of the disease in this patient is still unknown.

Conclusions: Chylothorax in pregnancy is a very rare disease. The etiology of the condition is not always known and it presents as a real dilemma for physicians.

P0745
CENTRAL SEROUS RETINOPATHY IN ANTENATAL MOTHERS
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Objectives: Central serous retinopathy in antenatal mothers incidence, demographics and management.

Method: 5 cases of antenatal women reported with visual loss, positive scotoma in front of eyes. Patients age average 35 years, period of gestation above 28 weeks, all 5 patients were primigravida, 3 patients had history of infertility treatment. On detail eye examination BCVA of both eyes was 6/9 in 3 patients, 6/12 in 2 patients. On retinal examination 4 patients had had macula edema, 1 patient had re macular edema. Photostress test was positive. Macular OCT showed pigment epithilum detachment and neurosensory detachments. Patients had no systemic disease, blood and urine checkup were normal. Patients were treated with NSAID eyedrops and followed up UP TO 1 year postpartum with monthly eye checkups.

Results: All 5 patients had had visual recovery, with reduction and disappearance of visual symptoms after delivery. Retina OCT demonstrated reduction of macular edema overtime.

Conclusions: Central serous retinopathy has a self remitting course in pregnant women.

P0746
OBSTETRIC AND PERINATAL COMPLICATIONS ASSOCIATED WITH THE USE OF CRACK DURING PREGNANCY
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Objectives: To describe the epidemiological profile of pregnant women that were CRACK (a cocaine product) users attended at Hospital Materno Infantil de Brasília (HMIB-DF), as well as the clinical and obstetric complications, and early perinatal outcomes in this group.

Method: A descriptive, retrospective and cross-sectional study was designed, to analyse obstetric and early perinatal outcome of pregnant CRACK users attended at HMIB, from March 2012 to June 2013. By a systematic collection of data from medical and psychology electronic and book records, we had a sample of 22 pregnant women or in the puerperal period, users of CRACK, who gave birth in public hospitals in Distrito Federal area. Abortions and lacking information records were excluded. The descriptive data was evaluated using averages and frequencies. The study had the assent of the Ethics Committee on Research.

Results: Mean age of pregnant users were 28 years; 50% were married or in a stable relationship. 41% had not completed primary education, and 66% started using CRACK between 21 and 30 years; 77% were multiparous. None of them carried out Brazilians Ministry of Health recommendation of at least 6 prenatal consultations, and 73% didn't attend any prenatal consultation. 86%, used other drugs besides CRACK. 36% reported domestic or sexual abuse historic. A high frequency of obstetric complications, affecting 82% of pregnant women in the sample was observed. Early perinatal complications also had high frequency, affecting 62.5% of newborns.

Conclusions: The presented study described the profile of CRACK pregnant users who were attended at the Mother and Child Hospital of Brasilia-DF (HMIB-DF) during the study period. A high frequency of obstetric complications as well as early perinatal complications was observed and is linked with low socio-economic level and consequently an accomplished prenatal precariously which further aggravates the complications frame. Knowledge of epidemiological aspects of pregnant CRACK users may be helpful in suggesting preventive measures and reduction of damage caused by the drug use during pregnancy.

Mixed Bag

P0747
T-CELL IMMUNE RESPONSE TO HUMAN PAPILLOMAVIRUS 16 FOR PREDICTING THE CYTOLOGICAL PROGRESS
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Objectives: To investigate whether the T-cell reactivity to human papillomavirus (HPV) 16 E7 antigen is associated with cytologic progress of the cervix.

Method: In this prospective study of 104 women who visited hospital for routine checkup, Pap smear and HPV test were followed up at 3 to 4-month intervals, and enzyme-linked immunospot assay using HPV 16 E7 antigen was performed at study entry to examine the specific T-cell response. According to the two consecutive results of cytology, “favorable trend” was defined as consistent normal cytologies or regression, whereas “unfavorable trend” was defined as persistence or aggravation of abnormal cytology.

Results: A total of 18 patients were suitable for analysis. The initial cytology was negative in 12 patients, ASCUS in four, and LSIL in two. The positive rate of T-cell response was 6.2% in normal cytology or ASCUS, but 100% in LSIL (p=0.02). Between the patients with an increasing and decreasing level of high-risk HPV viral load on follow-up, there was no significant difference in the rate of positive T-cell response (p=1.0). None of six patients with a favorable trend on cytology showed positive immune response, and 2 of 4 patients with an unfavorable trend had a positive response without significant difference (p=0.133).

Conclusions: T-cell reactivity to HPV 16 E7 seems to be associated with the severity of abnormal cytology at initial diagnosis, but less
helpful to predict the cytologic progress, indicating that T-cell immunity is not an independent factor that can decide the occurrence of cervical neoplasia.

**P0748**

**ROUTINE DATA QUALITY ASSESSMENT ON KENYA EMR AND PAPER SYSTEM AT NDARAGWA HEALTH CENTRE, NYANDARUA COUNTY**

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**Objectives:** Primary data elements. Looking at patient level data. Aggregate data. Some specific indicators (MOH reports). EMR specifics. Data back-up, system users and accounts. Process improvement. Automation (follow up RDQA’s).

**Method:** October 2014, baseline RDQA was conducted by APHL-APLUS, I-TECH Kenya in conjunction with MOH. A standard RDQA tool for electronic data developed by ITECH Kenya with 20 indicators from MOH257 was used. Sample size was determined by use of sample size calculator, nth value and start point for systematic random sampling determined by dividing total number of patients by sample size and last figure of birth date of one staff respectively. Ndaragwa Health Centre had 650 cumulative clients, the sample size used was 94 patient files, n=7 starting point was 7 since selected staff birth date was 27th. With 2 teams of 2 people each, one dealt with paper data while other dealt with the Electronic data.

**Results:** 4/20 indicators had a matching level of above 75% while 5/20 indicators had a matching level of less than 50%. The indicators that had dates as the data had low consistency level due to wrong use of the programmed calendar. The results were shared to the facility staff and way forward on improving data quality discussed.

**Conclusions:** Routine data quality assessments on electronic systems help achieve quality electronic data. Quality data contributes to improved service delivery and also leads to quality evidence based decisions.

**P0749**

**DETERMINANTS OF ANTENATAL BLOOD DONATION PRACTICES AMONG MARRIED MEN IN ILORIN METROPOLIS, NORTH-CENTRAL NIGERIA**

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**Objectives:** 1. To determine past blood donation practices among the study population. 2. To determine the predictors of antenatal blood donation among the study population. 3. To determine the deterrents to antenatal blood donations among the study population.

**Method:** Using a pre-tested, semi-structured, interviewer-administered questionnaire, a descriptive cross-sectional study involving 500 married men was carried out using a multi-stage sampling technique. Data analysis was done using SPSS version 18 software package. Regression analysis was used to test for significant associations between variables. A p-value of less than 0.05 was considered as statistically significant.

**Results:** Even though, majority (85.8%) of the respondents were willing to support voluntary blood donation, less than half of them (43.4%) had ever donated blood. Fear of contracting infections such as HIV/AIDS and Hepatitis (66%) and fear of fainting spell and bloodletting (41.6%) were the major deterrents to blood donation. Regression analysis revealed that age (B=0.061; p=0.002), occupation (B=0.125; p=0.000) and level of education were significant predictors of antenatal blood donation practices among respondents.

**Conclusions:** Voluntary antenatal blood donation practice is still low among the study population. Certain socio-demographic factors such as age, level of education and occupation are important predictors of antenatal blood donation. Improvement in public enlightenment campaigns to raise level of awareness and allay fears and misconceptions about antenatal blood donation is advised.

**P0750**

**CLINICAL EVALUATION OF STANDARDIZED FENUGREEK SEED EXTRACT AS FUROSTENOIC SAPONINS (FUROCYST) IN POLYCYSTIC OVARY SYNDROME PATIENTS**

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**Background:** Polycystic ovarian syndrome (PCOS) is one of the most common endocrine conditions affecting women of reproductive age group with prevalence of approximately 7–10% worldwide.

**Objectives:** The objectives of the study were to find out the effect of Standardized Fenugreek Seed extract as Furocystin on reduction in ovarian volume and the number of ovarian cysts.

**Method:** An open labeled, Multicentric, single-arm, and non-comparative study was planned on 50 female patients suffering from PCOS. Patients were enrolled as per inclusion i.e. Premenopausal women between 18–45 years of age, BMI less than 42, diagnosed with PCOS, with adequate hepatic, renal and haematological functions. Patients willing to give informed consent in writing. Patients with Hysterectomy, Congenital adrenal hyperplasia, Cushing’s syndrome, Androgen secreting tumour, Thyroid-dysfunction and Hypo-gonadism were excluded.

Women were allocated to receive Furocyst and were assessed on parameters of USG & hormonal on second day of cycle before and every 4 weeks within treatment period of 12 weeks.

**Results:** After treatment for 3 months with Furocyst caused significant reduction in ovary Volume (p<0.000), 46% of study population showed reduction in cyst size who had bigger cyst, 36% study population showed complete dissolution of cyst who had small cyst, 12% study population got pregnant and 71% patients reported regular menstrual cycle on completion of treatment and LH:FSH ratio was also reduced to normal.

Overall 94% of patients reported positively or got benefitted from Standardized Fenugreek seed extract dosing. No changes were observed in LFT, KFT and Haemogram level.

**Conclusions:** Present study indicates that Standardized Fenugreek seed extract as Furocystin is very effective and safe in the management of Poly Cystic Ovary Syndrome in women of reproductive age Group.
ous period of the center and with similar outcomes from the region and the word.

Results: The births recorded for the study period was 79,429. The prevalence of preterm births and LBW was 11.3% and 12.9% respectively. SGA (based on regional charts) corresponded to 10.9% of all births. A total of 920 were fetal deaths for the whole period (11.6 per 1000 live births). During the period 2004–2008 fetal death was 15.1 and for the second period (2009–2013) was 10.7 per 1000 being this difference statistically significant (p=0.0007).

Conclusions: There was a decrease in the fetal mortality in the last ten years in our institution. Considering historic figures (around 22.0 per 1000 previous 2000) we can conclude that the decrease of stillbirth was remarkable and continuous over time. No other significant changes were found in other perinatal outcomes.

P0752
SUMMARY OF MATERNAL MORTALITY IN UPPER SILESIA, POLAND BETWEEN 2000 AND 2012
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Objectives: Upper Silesia is an urban and industrial area of Poland with good access to maternal health-care with several tertiary perinatal centers located in different parts of the region. It covers 12,333.09 km² with population of 4,635 min (12.14% population of Poland). Our analysis is from 2000 to 2012 with the average number of deliveries ranges from 38,000 to 47,000, nevertheless the good maternal health care in the region, we notice constant number of perinatal deaths. We aim to detect the underlying diagnosis of maternal death to improve women health care in our region.

Method: Regional patient’s chart analysis. 2000 – 42,112 deliveries/5 deaths (Pulmonary embolism, Amniotic fluid embolism, DIC resulting from hemorrhage in placenta praevia, Oligohemolnic shock after extrauterine pregnancy rupture, Infarct of intestinal mesentery); 2001 – 40,672 deliveries/3 deaths (Hemorrhage after unrecognized uterine rupture; DIC resulting from placental ablation, Complications after legally not-allowed interruption); 2002 – 39,672 deliveries/5 deaths (“street death” due to HTN, HELLP 2x, Acute hepatitis, DIC resulting from placental ablation); 2003 – 38,860 deliveries/6 deaths (Lymphoma stage IV, Pulmonary hypertension, DIC resulting from uterine rupture, DIC resulting from placenta ablation, DIC resulting from placenta accreta, Pulmonary embolism); 2004 – 39,796 deliveries/5 deaths (Pulmonary embolism (2x), Liver toxicity, DIC resulting from septic shock, Post-partum hemorrhage); 2005 – 40,684 deliveries/4 deaths (Amniotic fluid embolism (2x), Mediastinal lymphoma, Postpartum hemorrhage); 2006 – 42,263 deliveries/1 death (DIC resulting from urosepsis); 2007 – 44,003 deliveries/4 death (Pulmonary embolism, Myocardial infarct, Uterine rupture (“house death”), Viral/bacterial encephalitis); 2008 – 46,998 deliveries/5 death (Pulmonary embolism (2x), Pulmonary hypertension, Hemorrhagic gastritis (“house death”), Amniotic fluid embolism); 2009 – 43,014 deliveries/3 deaths (Anterior cerebral artery aneurysm, Postpartum hemorrhage, AH1N1 infection); 2010 – 47,745 deliveries/3 deaths (Electric shock, Cerebral ischemic infarct, Amniotic fluid embolism).

Results: 2004 – 39,796 deliveries/5 deaths (Pulmonary embolism (2x), Liver toxicity, DIC resulting from septic shock, Post-partum hemorrhage); 2005 – 40,684 deliveries/4 deaths (Amniotic fluid embolism (2x), Mediastinal lymphoma, Postpartum hemorrhage); 2006 – 42,263 deliveries/1 death (DIC resulting from urosepsis); 2007 – 44,003 deliveries/4 death (Pulmonary embolism, Myocardial infarct, Uterine rupture (“house death”)); 2008 – 46,998 deliveries/5 death (Pulmonary embolism (2x), Pulmonary hypertension, Hemorrhagic gastritis (“house death”)), Amniotic fluid embolism); 2009 – 43,014 deliveries/3 deaths (Anterior cerebral artery aneurysm, Postpartum hemorrhage, AH1N1 infection); 2010 – 47,745 deliveries/3 deaths (Electric shock, Cerebral ischemic infarct, Amniotic fluid embolism).

Conclusions: 2011 – 44,803 deliveries/3 deaths (Amniotic fluid infarct, Pulmonary embolism, Hemorrhage due to placenta accreta); 2012 – 44,192 deliveries/4 deaths (Rupture of Aorta, Rupture of left lower limb varices, Pulmonary embolism, Uterine rupture due to placenta percreta).

The most common underlying diagnosis for maternal death in years 2000–2012 was pulmonary embolism followed by amnionics fluid embolism, however comorbidities played significant role in increasing the rate of maternal death. We advised for better detection of patients in need of anti-embolic prophylaxis.
to a mean of 15.58 (± 4.53) ug/g after 360 minutes perfusion. NPH showed rapid drop in the maternal compartment. It dropped 5.54 ug/g in the first 15 minutes and 13.8 ug/g in 360 minutes. However, the increase of NPH concentration on the fetal side was much slower.

**Conclusions:** Pregnant women seem to be exposed to high levels of environmental NAP. Its metabolites, NPH, and accumulates in term placentas. NPH has the ability to rapidly cross the placenta from the maternal to the fetal compartment within 15 minutes. The placenta seems to play a role in limiting the passage of NPH in the fetal compartment.

**P0755**

**SERVICE READINESS ASSESSMENT OF PUBLIC HEALTH FACILITIES TO PROVIDE MATERNAL AND NEWBORN CARE IN 15 REGIONS OF MADAGASCAR**

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**Objectives:** To evaluate the capacity of public health facilities to deliver maternal and neonatal services.

**Method:** A cross-sectional assessment of 52 public health facilities within 15 out of the 22 regions of Madagascar was conducted during 3 weeks in September 2014. Facilities included 62% of basic health centers (CSB), 27% of referral hospitals at district and regional level (CHD/CHRR) and 11% of university hospitals (CHU). Data was collected with an adapted version of World Health Organization’s SARA instrument, on tablet using CommCare© and analyzed by facility type with SPSS 20.0 and Microsoft Excel.

**Results:** General readiness (availability of basic amenities, basic equipment, standard precautions, diagnostic capacity, essential medicine) mean score was 86% [76%-96%] for CHU, 70% [65%-76%] for CHD/CHRR, 65% [61%-69%] for CSB. Lowest score was in CSB for diagnostic capacity and availability of essential medicines (53%) and highest score observed was in CHU for availability of functional basic equipment (95%). Regarding availability of 13 life-saving commodities of UN Commission, oxytocin was the most available in 78% of CSB, 64% of CHD/CHRR and 67% of CHU. Equipment for newborn resuscitation was available only in 31% of primary care centers (CSB).

**Conclusions:** The findings show low capacity of each level of public health facilities to provide maternal and neonatal health services. Furthermore, this poor service readiness in facilities was one of the main causes of Madagascar’s failure for achieving the MDG goals 4 and 5.

**P0756**

**A RARE AND DELAYED PRESENTATION OF HERLYN-WERNER-WUNDERLICH SYNDROME**

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**Introduction:** Congenital mullerian and wolffian duct system abnormalities can cause urogenital anomalies, including a relatively rare condition, termed Herlyn-Werner-Wunderlich syndrome. This anomaly was first reported in 1922. HHWW syndrome is characterised by uterine didelphys, unilaterally obstructed hemi-vagina and ipsilateral renal agenesis.

**Case details:** A thirty two year old lady presented with history of copious vaginal discharge, dysmenorrhoea and dyspareunia for five months. On vaginal examination, a tender 8cm x8cm bulge was palpable in the left antero-lateral wall of vagina. MRI showed two separate uterine cavities, cervix and vagina, pointing to a diagnosis of uterine didelphys. The left smaller moiety continued into a stenosed hemivagina and haematocolpos, measuring 7.2 x7.0 x7.3 cm. This was compressing the normal right moiety and causing displacement of the right vaginal wall.A diagnostic laparoscopy also confirmed the diagnosis.

**Discussion:** HHWW syndrome usually manifests shortly after menarche as haematocolpos or haematometra, and causes progressive dysmenorrhoea. As in most of the cases reported previously, diagnosis could be clinched pre-operatively using ultrasonography and magnetic resonance imaging. There is a 100% incidence of ipsilateral renal agenesis in HHWW syndrome, with the lateral distribution of obstructed hemi-vagina and renal agenesis favouring the right side twice as likely when compared with the left side. Our patient had a rarer left sided pathology.

**Conclusions:** Awareness of this rare congenital anomaly of the female genital tract would help in preventing the suboptimal management caused by diagnostic delay and help reduce the incidence of complications like endometriosis.
P0758
ESTROGEN INFLUENCES THE CROSSTALK BETWEEN APOPTOSIS AND AUTOPHAGY OF OSTEOCYTES IN THE OVARIECTOMIZED RAT MODEL OF OSTEOPOROSIS

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Objectives: To investigate whether estrogen influences osteocyte survival by regulating autophagy.

Method: Sixty-six adult female rats were sham-operated (SHAMG) or ovariectomized (OVXG). After 21 days, the rats received daily subcutaneous injection of 30 μg/kg of body weight of estrogen (OVXEG) or vehicle solution (OVXG) for 15, 30 and 45 days. Twelve non-estrogen-treated SHAM and OVX female rats were used as baseline groups (SHAMBL and OVXBL, respectively). Afterwards, the rats were euthanized and the maxillae containing the alveolar processes of the first molars were fixed and embedded in paraffin. Sections were subjected to immunohistochemistry for detection of apoptosis (cleaved caspase-3, BAX and TUNEL method) and autophagy (beclin1, LC3II and p62).

Results: The incidence of caspase-3, TUNEL and p62-positive osteocytes increased in the OVXG in comparison to SHAMBL. Meanwhile, the frequency of beclin1- and LC3II-positive osteocytes decreased in the OVXG group, while the incidence of TUNEL-positive osteocytes increased, whereas the frequency of beclin1-positive osteocytes decreased in the OVXG, in comparison to OVXEG. Also, a significant increase in the incidence of p62-positive osteocytes and significant reduction in the incidence of LC3II was observed in the OVXG in comparison to OVX, at 45 days.

Conclusions: Our results point to a possible correlation between apoptosis and autophagy in osteocytes, which is influenced by estrogen status in estrogen deficient rats.

P0759
EVALUATION OF THE HYALURONIC ACID AND SULFATED GLYCOSAMINOGLYCAN ON RATS BREASTS AFTER TREATMENT WITH STEROID HORMONES

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Objectives: To evaluate the hyaluronic acid and sulfated glycosaminoglycan on breasts of female rats ovariectomized (OVX) after hormonal treatment.

Method: 40 adult rats were initially ovariectomized and after 21 days randomly divided into four groups, each containing 10 animals, namely: CG - received saline solution, EG - received estradiol benzoate (37.6 μg per animal/day) for 7 consecutive days, PG - received medroxyprogesterone acetate (11.28 mg per animal/day) for 23 consecutive days, EPG - received estradiol benzoate (37.6 μg, for 7 consecutive days) and medroxyprogesterone acetate (11.28 mg, for 23 consecutive days). The results were subjected to statistical test (p<0.05).

Results: Dermatan sulfate in breast tissue of hormonal-treated animals showed a lower concentration in all groups compared to CG, p<0.05. Heparan sulfate and Hyaluronic acid in breast of P-treated animals showed a lower concentration compared to others groups (CG, EG and EPG), p<0.05. There were no differences among the other groups analyzed.

Conclusions: The results showed that the treatment with estrogen in their composition were able to stimulate the production the sulfated glycosaminoglycans (heparan and dermatan) and non-sulfated glycosaminoglycans (hyaluronic acid) in breast tissue compared to progesterone treatment. Although the concentration of GAGs analyzed was higher in the breast of the control group animals.

P0760
CONCENTRATION HYALURONIC ACID AND SULFATED GLYCOSAMINOGLYCAN ON UTERUS OF MICE OOPHORECTOMIZED AFTER TREATMENT – LONG TIME WITH SEX STEROIDS

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Objectives: To evaluate the influence of hormone replacement therapy for long time on concentration hyaluronic acid and sulfated glycosaminoglycan on the mice uterus.

Method: 50 female mice (non –oophorectomized) were divided into five with 10 animals/group: CG (control, non-oovx group) and OG (ovx group): 0.2ml saline solution; EG group: 2μg of 17β-estradiol; PG group: 2mg of progesterone and EPG group: 2μg of 17β-estradiol associated to 2mg of progesterone. All animals received for gavage of hormone dissolved in sunflower oil for 50 consecutive days. After 50 days the animals were euthanized and the blood samples were collected for measurements hormonal and the uterus used for quantitation of the hyaluronic acid and sulfated glycosaminoglycans. Data were statistically analyzed by ANOVA (p<0.05).

Results: Treatment with sex steroid hormones (17β-estradiol and progesterone) stimulated the synthesis of CS/DS and HS compared to control group (p<0.05). The 17β-estradiol treatment increased the amount of CS/DS compared to other groups (p<0.05). The progesterone treatment showed lower amount of HS compared to group that received the treatment with estrogen associated to progesterone (p<0.05). However, the treatment only with progesterone stimulated the synthesis of hyaluronic acid compared to other groups (p<0.05).

Conclusions: Our results showed that treatment with sex steroid hormones (17β-estradiol and progesterone) stimulate the synthesis of sulfated glycosaminoglycans (CS/DS and HS). And treatment with progesterone stimulates the synthesis of no sulfated glycosaminoglycan (hyaluronic acid). Suggesting that the synthesis of sulfated glycosaminoglycans in the uterus is dose/exposure time dependent, and the 17β-estradiol and progesterone have a different action on uterine extracellular matrix.

P0761
PERCEPTION ATTITUDE AND PRACTICE EXPERIENCE OF HEALTH CARE PROVIDERS TOWARD OCCUPATIONAL EXPOSURE TO HIV AND POST-EXPOSURE PROPHYLAXIS IN NIGERIA

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Objectives: To assess the perception, attitude, interventional and practice experience of healthcare providers towards occupational exposure to HIV infected body fluids and post-exposure prophylaxis.

Method: A cross-sectional questionnaire based survey was conducted among 84 healthcare providers, who attended a prevention of mother-to-child transmission of HIV capacity building workshop in June, 2014. Data was collated and analyzed with Epi-info statistical software. The process involved descriptive statistics.

Results: Among 84 participants, only 26 (31%) had correct information on PEP, its procedure and benefits. Over two-fifth (42.9%) had a wrong perception of prophylaxis with a high level of misconceptions ranging from 38.1% to 47.6% among participants. Over two-fifth (42.9%) had a wrong perception of prophylaxis with a high level of misconceptions ranging from 38.1% to 47.6% among participants. Over two-fifth (42.9%) had a wrong perception of prophylaxis with a high level of misconceptions ranging from 38.1% to 47.6% among participants. Over two-fifth (42.9%) had a wrong perception of prophylaxis with a high level of misconceptions ranging from 38.1% to 47.6% among participants.

Conclusions: The results showed that two-fifth (42.9%) of participants had a wrong perception of prophylaxis with a high level of misconceptions ranging from 38.1% to 47.6% among participants.
P0762
RAPID ANALYSIS OF MIDWIFERY PRE-SERVICE EDUCATION IN MYANMAR

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Objectives: Jhpiego, an affiliate of Johns Hopkins University administered a rapid midwifery education assessment as part of a project supporting the Ministry of Health (MoH) in Myanmar. The assessment’s primary objective was to provide evidence guiding interventions aimed at improving the quality of midwifery education and the competency of graduating midwives in Myanmar.

Method: A rapid assessment tool (RAT) was developed and validated to assess six major areas of PSE: Infrastructure; Teacher, tutors and preceptors; Students; Clinical practice sites; Curriculum; and factors that influence midwifery education. Myanmar is the first country where assessment was conducted employing the RAT in the first six of twenty two project schools. The RAT uses key informant interviews, observations and document review to produce a quantitative score representing each of the key inputs in relationship to whether or not they meet the International Confederation of Midwifery education standards. Those categories with lower scores were identified for priority project attention.

Results: School infrastructure accommodates trainees but classrooms are congested with 50–70 students (ICM standard 30). Skill labs have basic training equipment, however, do not fulfill ICM standard list. Teacher student ratio meets the standard and there is special consideration for student enrolment. Most of the student respondents are motivated to enter the midwifery profession. On average a student conducts only 5–10 deliveries before graduation and clinical preceptors are not specifically assigned and/or workload unadjusted. The current midwifery curriculum (2011) has substantial compliance with ICM competencies. Myanmar Nursing and Midwifery Council (MNMC) is the regulatory body for setting standards and midwifery licensing.

Conclusions: Jhpiego will provide support to equip skill labs for midwife trainee practice. Teachers’ capacity building will be provided including competency based training. Coordination between midwifery schools and teaching hospital/practice sites should also be strengthened in regard to appointing clinical preceptors and facilitating supported standardized clinical practice. Special enrollment schemes—allowing lower entry requirement for remote ethnic population with the agreement for serving in the area-for applicants should be maintained and scaled up. The midwifery curriculum will be updated in 2016 in line with ICM standards and a greater focus to ensuring graduates are competent and confident on completion of educational programs.

P0763
KNOWLEDGE AND AWARENESS OF THE INTEREST GROUPS ON HUMAN PAPILLOMAVIRUS VACCINE FOR MALES IN KOREA

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Objectives: The quadrivalent human papillomavirus virus vaccine was recently licensed for use in males in Korea. However, the successful introduction and acceptance of the vaccine will depend on a range of factors, including awareness of HPV infection as an important problem related to cervical cancer, the affordability and acceptability of the vaccine. The major objective of this research is to examine knowledge and awareness toward Human Papillomavirus (HPV) vaccination for males among people who are directly or indirectly related to HPV vaccine.

Method: It is a cross-sectional survey type study from multiple interest groups. The subjects of the study were about 500 people recruited in community. These subjects were classified into 5 groups with 100 people each. The 5 groups are as follows: high school students, parents of high school students, college students who are not related to medical studies, health providers, and employees of administration in health center. This study used constructed survey to assess knowledge and awareness of HPV vaccination in male in Korea. We used same questionnaire and measurement variables to survey each groups.

Results: In five groups, 31.8% knew nothing about HPV (79%, high school students). And only 24.6% knew that HPV vaccine could be used for men (8%, high school students). Acceptance score for vaccination of high school student group was significantly lower than other groups. Other measurement variable scores of high school student group were also lower. Only 14.2% parents had a plan to suggest getting HPV vaccination to children.

Conclusions: The group of high school students was vulnerable to measurement variables related to HPV vaccination. More effective education methods for each group should be implemented and right information about HPV vaccination should be exposed by media.
Conclusions: The positive correlation between maternal and neonatal serum 25-hydroxyvitamin D$_3$ levels confirms the fact that a mother needs to have adequate levels during pregnancy for her neonate to have the normal levels. In vivo serum 25-hydroxyvitamin D$_3$ levels alone may not be responsible for an increase in the risk of very early onset neonatal sepsis.

P0765

FRACTURE FEMUR IN A NEWBORN: A RARE COMPLICATION OF BREECH PRESENTATION IN DIFFICULT POST CAESAREAN SECTION (A CASE REPORT)

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Objectives: To increase the awareness of the clinical complication of fracture of the femur during breech extraction in the course of caesarean section.

Method: A male baby weighing 2800gm delivered by emergency caesarean section with breech extraction for a booked case of post caesarean section 39 week pregnancy with breech presentation in active labor with scar tenderness was diagnosed fracture femur of left side on 3rd day. 90°–90° splinting was done for two weeks. Mother was readmitted after one month for wound granuloma which was treated conservatively.

Results: Evaluation of the baby after one month by x -ray showed abundant callous formation around the fracture site. The findings showed that this fracture fully consolidate when treated conservatively. Both the mother and baby were doing well at present.

Conclusions: The risk of accidental traumatic injury of long bones of newborn should not be underestimated in difficult caesarean section for breech presentation. The mother should be informed about the risk before delivery. Every surgeon needs to take precautions to avoid this accidental injury. Care to rule out the possibility of fracture of long bones of newborns is essential for early diagnosis and management specially in difficult caesarean section for breech extraction.

P0766

WHOLE GENOME STEADY STATE EXPRESSION ARBAY REVEALS THAT CATIONIC ANTIMICROBIAL PEPTIDE LIKE (ALA8,13,18) MAGAININ II AMIDE MAY AFFECT IMMUNOMODULATORY FUNCTION OF HUMAN FIRST TRIMESTER VILIUS CYTOTROPHOBLASTS

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Objectives: The anti-nidatory function of a cationic anti-microbial peptide, Ala$_8$$^{13,18}$ magainin II amide (AMA) has previously been reported. It has been indicated that placental trophoblast cells could be a potential target of AMA resulting in its anti-nidatory action. In the present study, we have examined the effect of different doses of AMA on the molecular phenotypes of the first trimester placental cytotrophoblasts in-vitro using whole genome expression microarray.

Method: Villous cytotrophoblasts were isolated from freshly collected early placentals samples, purity checked and cultured on three-dimensional collagen biomatrix as described elsewhere. After 24 hours following the administration of different doses (0, 1, 10, 100, 1000 ng/ml) of AMA, the cells were harvested, total RNA was extracted, quality of extracted RNA was checked and subjected to whole genome expression microarray analysis as described elsewhere. The expression data were subjected to exploratory and differential display analysis using ANOVA followed by Tukey test with Benjamini-Hochberg correction. The data was further analyzed for pathway based analysis using GENEGO MetaCore Web portal.

Results: Administration of AMA to cytotrophoblasts in-vitro resulted in differential expression of 27 genes at steady state. Post-hoc analysis identified that these genes were primarily involved in the Toll-like receptors (TLRs)-mediated immunomodulatory functions of early placental cytrophoblasts.

Conclusions: It appears from the present study that administration of antimicrobial peptides like AMA adversely affect the immune regulatory function of placenta, which may result in significant imbalance in the adaptive control of placentation. Further studies in this area may give us the important leads towards understanding the underlying mechanism of anti-nidatory effect of cationic antimicrobial peptides.

P0767

A NEW CASE OF CONGENITAL POLYMALFORMATIONS IN AFRICAN RICH MINERAL ENVIRONMENT REGION

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Objectives: To discribe a new case of congenital malformations which is close to MURCS associations.

Method: Clinical examination, paraclinic investigations and laparotomy.

Results: A 19 years old girl consulted 2 years ago for a problem of miction, primary dysmenorhoea since age of 14. Gynecological check observed a fuse of labia minora in a thin membrane. There was a tiny tunnel behind the membrane going to another opening located at 1cm from the anus. The 2 labia majora, vaginal cavity, uterine cervix were normal as well as the biological investigations. The x-rays confirmed squeletic abnormalities and a non functional left kidney; the ultrasound didn’t show this kidney image. The laparotomy revealed an agentic left fallopian tube and hemi-uterus while the right were well developed.

Conclusions: All these findings:genital, squeletic, limbs and renal abnormalities let us conclude that the patient had a syndrome similar to MURCS associations. But as she doesn’t have primary amenorhoea we think that the present syndrome is a new one; so that more investigations such as cariotype and genetic are needed.

P0768

MAPPING CERVICAL CANCER PROGRAMMING STRATEGIES WITH NCD AND INFECTIOUS DISEASE FRAMEWORKS TO GET THE BEST FIT RECOMMENDATIONS FOR PUBLIC AND PRIVATE SECTOR CONTROL OF CERVICAL CANCER IN SOUTH ASIA

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Objectives: As part of the South Asia regional cervical cancer initiative for control of cervical cancer – IPPF South Asia regional office is conducting a mapping of practices and strategies in the region. The objective in this mapping study was to see if Infectious disease management frameworks match these strategies better than the global NCD framework currently practiced for cervical cancer control.

Method: Academic papers, regional cancer manuals, editorials, interviews and commentaries from leading journals were consulted to understand the current disease and infection classification voice within the public health response context. Experts in the field of cancer policy were also contacted in order to understand the effective potential of the suggested synergies. The online, published and open source literature were critically appraised to identify emerging service delivery and advocacy themes within the global communicable (infectious), non-communicable (chronic) and neglected tropical disease classifications whose implementation would directly or indirectly benefit prevention and treatment of Cervical Cancer in middle income countries.

Results: We find that all the strategies inherent in a life-cycle approach to control cervical cancer – such as vaccines and barrier methods to prevent HPV spread- all match better to the infectious disease...
management framework rather than NCD framework. There is a call to integrate cervical cancer screening and treatment services with infectious and chronic disease management programmes at the Primary Healthcare level. Preventive strategies such as education and vaccine delivery can be achieved through existing vaccination drives. The integration model provides scope for improving cancer registry quality. Global funding models can be emulated to ensure rapid financial assistance.

**Conclusions:** Recognizing and reclassifying cancer cervix as an “infectious disease” in South Asia will pay regional cognizance to the human rights based public health response, currently the cornerstone of reproductive and sexual health programmes in the region. The epidemiological transition from infection to chronic disease management provides training, care and advocacy opportunities in situ. Compartmental Non-Communicable Disease frameworks encourage pharmaceutical and philanthropic dependence. Cross-cutting, rights based and gender transformative infectious disease control efforts in the region have elicited the opportunities to integrate infectious cancer prevention, treatment and palliation within existing national sexual and reproductive health programmes for women and men.

**P0769**

**IMBALANCE BETWEEN THE APOPTOTIC CELL DEATH (CASPASE-3 CLEAVED) AND THE CELLULAR PROLIFERATION (PCNA) IN LACRIMAL GLAND OF FEMALE MICE OF HYPERPROLACTINEMIC FEMALE MICE**

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**Objectives:** To investigate expression of cleaved caspase-3 and PCNA in the in the lacrimal gland of female mice of hyperprolactinemic mice female.

**Method:** 20 female/groups: control group (non pregnant, Ctr1): 0.2 mL of saline (vehicle) and the experimental group (non pregnant, HPrl1): 200 μg/day of metoclopramide, dissolved in vehicle. After 50 days 10 females of each group were placed for mating with males and continued to receive treatment. The females non pregnant were euthanasia on 50th day (experimental I) and the females pregnant were euthanasia on 5.5th to 6.5th post-coital day (Ctr2: control group and HPrl2: experimental group). The blood samples were collected for hormone measurements. The uterus were processed for immunohistochemistry. The results were subjected to statistical test (p<0.05).

**Results:** The decreased immunoeexpression of caspase 3 in the non pregnant controls compared to non-experimental group (p<0.05). And increased cell proliferation (PCNA) in the pregnant control group compared to pregnant experimental group (p<0.05). Serum prolactin levels were higher whereas the levels of estradiol and progesterone were lower in the animals that received metoclopramide compared to controls.

**Conclusions:** The metoclopramide-induced hyperprolactinemia altered the cellular activity in lacrimal glands in non pregnancy and pregnancy as a consequence of the imbalance between the apoptotic cell death (caspase-3 cleaved) and the cellular proliferation (PCNA). It is hypothesized that this effect might be related with decrease in the hormonal production of estrogen and progesterone.

**P0770**

**THE IMPACT OF DIET ON GESTATIONAL DIABETES IN SOUTH ASIAN IMMIGRANTS**

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**Objectives:** Diabetes is found in significantly higher proportions within the South Asian population, independent of traditional risk factors such as age and weight. This trend also translates to gestational diabetes. The relationship between the traditional South Asian diet and diabetes risk has been studied, with the high intake of refined carbohydrates and saturated fats noted to play a role in disease development. However, limited information is available regarding the relationship between the South Asian diet and management of gestational diabetes (GDM). 

**Method:** This was a retrospective cohort study of pregnant South Asian women who delivered at Bellevue Hospital in New York City between January 2010 and October 2012. Subjects were selected from obstetric logbooks, which record all deliveries in the hospital. All patients received prenatal care and nutritional counseling at the Hospital. The electronic medical record (Quadrac-Med) was used to obtain the information regarding weight gain, dietary recommendations from the nutrition counselors, and birth weights. Inclusion criteria for the study were South Asian ethnicity, pre-natal care and delivery at Bellevue Hospital, and nutritional counseling.

**Results:** 37/145 (26%) had GDM, diagnosed via GCT > 140, and 8/145 (6%) had pre-gestational diabetes. All had 2nd trimester screening, 13/37 were screened, but not diagnosed, in their 1st trimester. Average weight gain for the GDM group was 22.4lbs, compared to 25.2lbs in the entire study group. Per nutrition records, dietary modification was the treatment for 22/37 (59%) of the GDM group, while 13 required the addition of oral hypoglycemics to control sugar levels. 20/37 (54%) delivered vaginally, and 17 (46%) had c-sections. Average birth weight in the GDM group was 3123.9g, and 3357.5g (+233.6g) in the pre-gestational diabetes group.

**Conclusions:** Dietary guidelines provided by the nutritional counselors to those diagnosed with GDM are generic and vague. Usual recommendations are to follow the food guide pyramid and increase fruit, vegetable, and whole grain intake. While most patients were successful with the diet, they reported difficulty controlling rice and fried food intake, which hindered their ability to optimally control their sugar levels. These findings highlight the necessity for culturally specific dietary modifications targeted to the South Asian population.

**P0771**

**CERVICAL PREGNANCY: TWO CASE-REPORTS AMONG 138,000 LEGALLY INDUCED ABORTIONS IN MEXICO CITY. CLINICAL PRESENTATION AND REVIEW OF THE LITERATURE**

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**Objectives:** The objective of the study is to review two cases of cervical pregnancies, and to present an updated review of the literature, in order to analyze the expected incidence of this pathology, its clinical presentation as well as the present recommendations for diagnosis and treatment.

**Method:** We report the clinical history of two cases of cervical pregnancies that occurred among more than 138,000 women presenting for legal termination of pregnancy, between April 2007 and February 2015, in the public legal abortions (LA) services in Mexico City Ministry of Health. Patient histories, ultrasound results, clinical presentation of symptoms and medical/surgical management are analyzed. A search of the literature was performed, through PubMed, to examine published case reports/series of cervical pregnancies, and to review updated evidence on presentation, symptoms, diagnostic methodologies and therapeutic approaches of this rare illness.

**Results:** Both women presented during first trimester of gestation. Case 1 was diagnosed preoperatively, via US screening; she underook a planned hysterectomy, due to satisfied parity. Case 2 was diagnosed intraoperatively, during the aspiration procedure, when she started with profuse bleeding. She was managed with transfusions, uterine artery clamping and emergency hysterectomy. Literature confirms the rarity but the severity of this ectopic pregnancy variant: cervical implantation accounts for less than 0.1% of all ectopic pregnancies, however is associated with high morbidity and
mortality. Management should take into account severity of bleeding, available resources and preservations of fertility, whenever desired.

**Conclusions:** Cervical ectopic pregnancy is due to implantation of the fertilized ovum in the endocervical canal distal to the internal cervical os. Cases are usually asymptomatic or include painless vaginal bleeding. Diagnostic tools include US imaging, but even US diagnosis is difficult in early pregnancies without fetal cardiac activity, as cervical ectopic may be confused with spontaneous abortion retained by a closed external os. Evolution may be catastrophic without previous diagnosis, when pregnancy continues, as well as when treatment (surgical or medical evacuation) is initiated. An early diagnosis is key for a correct and whenever possible, conservative management of this condition.

**P0772**

**HIGH PREVALENCE OF MULTI-DRUG-RESISTANT-ORGANISMS (MDRO) IN PRE OPERATIVE STOOL SURVEILLANCE CULTURES OF GYNAECOLOGY PATIENTS IN AN ONCOLOGY CENTRE IN EASTERN INDIA**

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**Objectives:** The commonest morbidity of gynaecological cancer patients undergoing major surgery in Indian hospitals is infection. An audit carried out in our institution identified that 23% of patients who had major gynaecological oncology surgery had sepsis in the post-operative period. Appropriate antibiotic prophylaxis is therefore of paramount importance to minimise the infection rate among these patients. We introduced a policy of stool surveillance culture to identify the potential offending organisms prior to surgery to tailor anti-biotic prophylaxis and treatment started based on the surveillance results. This study investigates the prevalence of different organisms and their antibiotic sensitivity among gynaecological cancer patients.

**Method:** Stool samples of all women listed for major gynaecological oncology surgery were subjected to culture processed based on standard reference method (Landman et al. J Clin Microbiol, 2005), validated in our hospital’s microbiology department. The results were auto-populated in the electronic hospital management system (HMS) from which data was retrieved. The proportion of different isolates and their antibiotic sensitivity was analysed from 1st January 2014 to 31st December 2014.

**Results:** During the study period 138 samples were processed. Of these, 118 (85.5%) samples grew one or more multi-drug-resistant-organisms (MDRO) and 133 organisms were isolated. Only two of the 133 organisms were enterococcus, the rest were Gram negative bacteria (99 *E. coli* and 32 *Klebsiella* spp.). All these Gram negative MDRO were found to be extended spectrum beta lactamase (ESBL) producers. Meropenem resistance was found in 7% *E. coli* and 29% of *Klebsiella* spp. Co-amoxiclav sensitivity in *E. coli* was only 51% and to *Klebsiella* spp. 32%. Most Gram negative MDRO were sensitive to Amikacin (91.6%).

**Conclusions:** There is a high prevalence of Gram negative MDRO among women undergoing gynaecological cancer surgery attending our hospital. As these organisms were grown prior to surgery, it may reflect the acquisition in the community and has important public health implications. Surgical antibiotic prophylaxis and empirical treatment strategies in case of clinically suspected infections following surgery must take into account this background prevalence of high MDRO. Adding Amikacin to Co-amoxiclav may be a relatively inexpensive and broad spectrum antibiotic sparing strategy for prophylaxis.

**P0773**

**VITAMIN D ATTENUATES GROWTH OF CERVICAL CANCER CELLS THROUGH ACTIVATION OF p27kip1, JAB1 AND VDUP1**

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**Objectives:** The goal of this study was to investigate expression of cell cycle signaling protein p27kip1 and Jun activation domain-binding protein 1 (Jab1) and vitamin D up-regulated protein 1 (VDUP1). VDUP1 is a protein that is up-regulated by 1α,25-dihydroxyvitamin D₃ (vitamin D), an active form of vitamin D, and stress environment. As VDUP1 has anti-tumor effects, its expression either highly decreased or disappeared in various human cancer type. It is exported that VDUP1 stabilizes nuclear p27kip1 by inhibiting jab1/CSN5 which is known to translocate nuclear p27kip1 to cytoplasm for ubiquitin-dependent degradation pathway.

**Method:** Hec cervical cancer cells (2 × 10⁶ per well) were seeded in a 96-well plate overnight and then treated with varying concentrations of vitamin D in serum-free medium for 24 hr. Cell growth was assayed using a MTT assay. Western blotting analyses were performed to clarify molecular changes (p27kip1, Jab1 and VDUP1).

**Results:** In vitro experiments, Vitamin D inhibited the growth of cultured Hela cells in a dose-dependent manner by 20–25%. Doses were Vehicle, 5, 10, and 20uM. In western blotting, results indicated that expressions of p27kip1 protein were increased in a dose-dependent manner. And expressions of Jab1 and VDUP1 were decreased in a dose-dependent manner.

**Conclusions:** The data presented here strongly indicate a relationship between the vitamin D and Hela cervical cancer cell line, p27kip1, Jab1 and VDUP1. VDUP1 expression is involved in the proliferation of the tumor cell, but not always to the anti-cancer activity, depending on the type of cancer.

**P0774**

**CHANGING TRENDS AND DETERMINANTS OF CAESAREAN SECTIONS IN A TERTIARY CARE HOSPITAL OF A DEVELOPING NATION**

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**Objectives:** 1. To study changing trends and determinants of caesarean section in last five years in a tertiary care hospital and associated perinatal outcome.
2. To evaluate and suggest steps for optimizing the caesarean section rates which are a cause of concern in a developing nation.

**Method:** A retrospective analytical study of caesarean sections done during 2008—2009 and 2013—2014 at VMMC & Safdarjung hospital, New Delhi. Former was designated as Group A which was 27,250 and the latter as Group B which was 29,175. Determinants of Caesarean sections and those for repeat sections were analyzed including the perinatal outcome. Inferences were drawn regarding factors which can be modified for optimizing the said rates.

**Results:** Caesarean rates have risen from 12% to 16.3% over five years. Major determinant was Fetal distress being 35.6% in group A and 33.25% in group B. Previous one cesarean was second major deter-
minant which rose from 23.19% to 30.32%. NonReassuring fetal heart pattern was major cause of fetal distress in 55.92% cases. While repeat cesareans were done commonly for features of scar dehiscence in group A (55.28%), it showed a declining trend in group B (39.20%). Women not willing for TOLAC showed a percentage rise of 1.6%. The perinatal mortality declined from 24 to 20/1000 live births.

Conclusions: Caesarean rates have risen in last 5 years by 4.3%. Fetal distress remains the major indicator for primary caesareans contributed by nonreassuring fetal heart pattern. Scar dehiscence was second major determinant while a rise of 9.7% was observed in sections done for fetal distress in this group. No significant decline observed in perinatal mortality. Sections done for fetal distress should be carefully audited whether non-reassuring fetal heart, meconium stained liquor are absolute indications for surgery and whether maternal tachycardia itself is an indicator of scar dehiscence. Proper spacing, good nutrition, improved surgical skills, asepsis will improve scar healing.

P0775
BASELINE EVALUATION OF INFECTION PREVENTION AND CONTROL (IPC) IN THE CONTEXT OF EBOLA VIRUS DISEASE (EVD) IN NINE HEALTHCARE FACILITIES IN THE CITY OF CONAKRY, GUINEA

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Objectives: As a means to contribute to the response to the EVD epidemic and support health system strengthening, Jhpiego, with funding from USAID, committed to strengthening health service capacity in IPC. To ensure that the interventions to reinforce IPC were appropriate for the needs of the healthcare providers and facilities, the project team started by conducting a rapid assessment of focus sites using established performance standards in order to assess current practices in IPC, identify gaps in performance and inform the implementation of corrective measures.

Method: The assessment was conducted in December 2014 and January 2015 in the nine public hospitals of Conakry; three teaching hospitals, comprising 66 services, and six communal medical centers (CMC). The main assessment tool was based on performance standards for IPC previously introduced in several facilities in Guinea as part of the quality improvement methodology. Standards-based Management and Recognition™ (SBM-R). A materials inventory and interview questions were also used. Data collection consisted of observation, interview and document review by a team of two evaluators per facility, for 2–3 days per facility. Evaluators were trainers in IPC and/or SBM-R.

Results: In the three national teaching hospitals, among 66 services, one service achieved 75% of performance standards, and eight (12%) achieved none. 33 (50%) of the services achieved below 30% of standards, while 17 (26%) scored between 31 and 49% and seven were performing at 50–74% of standards. In the 6 CMC, four were performing between 16 and 20% of standards, and two were performing at 35% and 37% respectively. Key reasons for poor performance included: 1) lack of IPC materials and equipment, 2) non-observance of IPC procedures and norms, 3) poor management of IPC activities, such as waste management.

Conclusions: The assessment of the nine public hospitals in Conakry allowed for the identification of gaps in IPC practices and guided the implementation of a strategy for reinforcing IPC practices. Key interventions included training of healthcare workers, provision of an initial stock of IPC materials, onsite follow-up and close supervision, and monitoring and evaluation to feedback results to providers and managers. These actions ultimately will contribute to the reduction of EVD and other infections among healthcare workers, improve the quality of healthcare services, and help to restore community confidence in the public health services.

P0776
ANALYSIS OF A PILOT PROGRAM TO IMPLEMENT PHYSICAL THERAPY FOR WOMEN WITH GYNECOLOGIC FISTULA IN THE DEMOCRATIC REPUBLIC OF CONGO

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Objectives: To describe components of a physical therapy pilot program for women with gynecologic fistula, and to report prospective data from the first 2 years of program implementation.

Method: A single-cohort observational study with repeated measures was conducted at HEAL Africa Hospital, Goma, Democratic Republic of Congo. Hospital staff received training in pelvic floor physical therapy. Guidelines for exercise, functional training, and reproductive health education were integrated into the existing program. Demographics, clinical findings, and functional outcomes were recorded. Key stakeholders were interviewed to understand the perceived strengths and limitations of the program.

Results: A total of 205 women were followed up; 161 participated in physical therapy, with an average of 9.45 sessions. Of 161 women examined postoperatively, 102 (63.4%) reported no incontinence; they remained continent at discharge. Of 21 who indicated a change in level of incontinence during postoperative physical therapy, 15 (71.4%) improved. The program was feasible and well received by staff and patients.

Conclusions: Pelvic floor physical therapy could have significant results in women with gynecologic fistula, may be an important adjunctive treatment in comprehensive fistula care, and warrants further investigation.

P0777
ECTOPIC CERVICAL PREGNANCY: THE NEARLY MISSED DIAGNOSIS. A CLINICAL CASE

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Objectives: Cervical pregnancy is a rare form of ectopic pregnancy, accounting for less than 1% of all ectopic pregnancies, and is often associated with significant morbidity and devastating effects on future fertility. Its etiology remains unclear, despite association with few risk factors, and its diagnosis is often delayed or missed, made mainly intraoperatively during dilatation and curettage for a supposed abortion. Our main objective is to bring awareness to this, thought infrequent, potential life-threatening condition and support the recent reports that a conservative approach with methotrexate can be safe and effective, preserving the woman’s reproductive ability.

Method: We describe a clinical case of ectopic cervical pregnancy managed successfully with a conservative medical approach, with a single intramuscular dose of methotrexate.

Results: 44 y.o. woman, gravida 4, para 2 (1 CS), presented to our emergency room with lower abdominal pain and vaginal hemorrhage at 10 wk. amenorrhea. A previous evaluation defined an abortion in progress. A light bleeding and a distended congestive cervix were observed. The ultrasound: empty uterine cavity, cervical gestational sac with an 8 wk. embryo, no cardiac activity. B-hCG level was 384 IU/L. Intramuscular administration of methotrexate 50mg/m², was the elected treatment for the cervical pregnancy. Progressive drop of the B-hCG level and collapsing of the gestational sac was seen by day 7, and complete remission after 3 weeks.

Conclusions: Cervical pregnancy is a rare condition that can be haz-
ardous if not diagnosed and treated early during the course of pregnancy. Timely and prompt diagnosis, distinguishing a true cervical pregnancy from cervical abortion, is essential for successful treatment and fertility preservation. Therefore increased awareness and suspicion index among the Ob-Gyn practitioners should be fomented. Since the 1980’s several reports supporting successful methotrexate treatment reinforced our decision for a conservative attitude, as well as the patient’s desire for fertility preservation and her hemodynamic stability. The ideal therapeutic approach remains to be defined, and should be tailored accordingly to each patient.

**Neonatal Care**

**P0778**

**IMPROVING CHLORHEXIDINE ADVOCACY FOR NEWBORNS (I-CAN)**

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**Objectives:** The objective of the study was to prepare a "Situation Analysis Report on Use of Chlorhexidine for Cord Care in Pakistan". The situation analysis was based on two components, Literature review and Field Consultations. Literature Review consolidates the existing evidence base for cord care from global, regional, and national studies. Field Consultations to determine the existing practices and protocols for cord care at various levels and to collect recommendations and advice from key stakeholders (e.g. technical experts, policy makers, policy implementers, service providers and communities) about the use of Chlorhexidine for cord care.

**Method:** The literature review included analysis of global, regional, and local studies and strategies related to cord care. Biomedical and social sciences databases were searched for publications related to Chlorhexidine use for umbilical cord care. Health Sector Strategies were also reviewed to assess the extent to which MCH and cord care was prioritized in provincial health plans. Field consultations were done in three provinces (Baluchistan, Punjab, and Sindh) and two regions (AJK and GB). Healthcare providers working at the public and private sector were approached to assess their knowledge and practices regarding cord care and to gather recommendations from key stakeholders.

**Results:** All studies proved that Chlorhexidine was superior to any other anti-septic for cord care although 4% Chlorhexidine tested during trials in Asia was the most efficacious. Hence, 4% Chlorhexidine is now considered the gold standard drug. The WHO approved 7.1% Chlorhexidine digluconate and included it in the Essential Medicines List for Children.

Field consultations found that knowledge about Chlorhexidine decreased as we moved down from policy makers to PHC providers. Few, if any, private healthcare providers, CMWs, LHW, & TBAs had ever heard of Chlorhexidine. However, most groups were able to identify sepsis as the leading cause of newborn mortality.

**Conclusions:** To advance the use of Chlorhexidine for cord care in Pakistan, most of the interview participants suggested improving advocacy at the policy and programmatic level for inclusion of Chlorhexidine into the Essential Drugs List, purchase list of LHWs and MNCH Program and purchase list of Executive District Officer Health. Further, they recommended advocating with pharmaceutical companies for local production of Chlorhexidine in required concentration.

**P0779**

**DEVELOPMENT OF THE PROMOTING STRATEGIES TO SUPPORT BREASTFEEDING MOTHERS AND THEIR BABIES IN SOCIO-CULTURAL CONTEXT OF IRAN: USING THE NOMINAL GROUP TECHNIQUE MEETING**

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**Objectives:** Exclusive breastfeeding is one of the important aims of healthy nutrition and public health program in the world. Many women are employed or educated in universities. So, supportive strategies can increase successful breastfeeding rates in Iran. This study was for evaluating the perspectives of maternal and child health care providers on the appropriate strategies for increasing breastfeeding rates among Iranian mothers and their children using Nominal Group Technique (NGT).

**Method:** A semi-quantitative/qualitative methodology research using NGT, a panel discussion was held in December 2014 with 15 maternal and child health care providers who were selected through purposive sampling method.

**Results:** In the first round, 18 strategies were generated; after eliminating irrelevant items and integration similar items, 15 strategies remained. Overall 15 generated items were further listed as the accepted as supportive strategies to breastfeeding among Iranian mothers and children. After group discussion and voting, the following 3 items had scored higher than 30 point: Maintaining mothers work seat and occupational position during breastfeeding period (49 point); father involvement as a supportive strategy during breastfeeding period (39 point); and community involvement by establishing supportive peer group and health care provider campaign during pregnancy and breastfeeding period (38 point).

**Conclusions:** The interesting strategies presented in this study are the special health care providers in promoting breastfeeding in the context of Iranian society. Since many of Iranian women educate in university or employ, so maintaining mothers work seat and occupational position during breastfeeding period received the highest score by all the participants of NGT. These strategies may be used by maternal and child health care providers, policy-makers and managers to improve maternal and child health.

**P0780**

**PERINATAL RISK FACTORS OF HYPOXIC ISCHEMIC ENCEPHALOPATHY IN NEONATAL INTENSIVE CARE UNIT IN EL-MINIA UNIVERSITY HOSPITAL FROM 2007 TO 2012**

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**Objectives:** To assess the risk factors of birth asphyxia in neonates in EL-Minia University Hospital from 2007 to 2012, to be used as basic information for preventing birth asphyxia in the future and to detect the role of antenatal care.

**Method:** We conducted a case control study of HIE in EL- Minia University hospital Neonatal Intensive Care Unit, Egypt. Over 6 years from 2007 to 2012. We studied files of 80 neonates fulfilling criteria of neonatal asphyxia and we excluded major congenital anomalies and we studied the files of 80 neurologically free neonates were included as a control group in the same period.

**Results:** About 18.8% of cases having grade 1 encephalopathy HIE, 47.5% having grade 2 encephalopathy, 33.8% having grade 3 encephalopathy. We found that antepartum, intrapartum and postpartum factors are important in the causation of neonatal encephalopathy in our study. It revealed that inappropriate ANC, meconium stained amniotic fluid, prolonged 2nd stage of labour, chorioamni-
ionitis, placenta previa, abruptioplacenta, prolapsed cord, PROM ≥12h, polyhydraminos, forcoeps and oxytocin use as maternal factors highly affect the occurrence of encephalopathy in cases than control.

Conclusions: Early identification of high risk cases with improved antenatal and perinatal care can decrease such high mortality as absent antenatal care was associated with an increased risk of encephalopathy in our study.

P0781 NEWBORNS AND APGAR SCORES: STUDY ON MATERNAL AND CHILD HOSPITAL IN THE EXTREME NORTH OF THE BRAZILIAN AMAZON

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Objectives: The study was conducted to analyze the influence of age, educational level, number of prenatal consultations, the delivery route and weight of the Newborn in the 5th minute APGAR in the far north of Brazilian Amazon, so pointing out the biggest influencers of result of APGAR scores <7, supporting future interventions to prevent such results.

Method: The study was conducted at the Hospital Materno Infantil Nossa Senhora de Nazaré, maternity located in Boa Vista, the capital of Roraima, northern Brazil. This is a descriptive, retrospective, cross study, which analyzed 3507 medical records of women from November 2012 to July 2013. Statistical analysis was performed using Epi Info 7, using the chi-square test for proportion of qualitative variables with p <5% and the odds ratio (OR) in the risk assessment of prevalence study. Newcomb method with 95% confidence was used to analyze the sample means of the confidence interval. Ethics Committee approved the study.

Results: From those born with values of APGAR ≥7, 59.5% were born vaginally. From the newborns with APGAR <7, the prevalent delivery route was vaginal with 60% (p=0.002, OR=1.0196, 95% CI: 0.4630–2.3282). From infants with APGAR <7, 53.3% were of mothers aged between 21 and 35, in the group of APGAR ≥7, also prevailed these ages (57.2%) (p<0.05, OR=1.171). Patients who had more consultation during prenatal care, had less newborns with APGAR <7 (0.65%). From newborns with APGAR <7, 73.3% were of mothers who attended ≤6 visits during the prenatal (OR=1.4997). Those born weighing ≥2500g, 4.63% had APGAR <7, against 0.38% of patients weighing <2499g (p=0.00001, OR=0.078).

Conclusions: Becomes evident the relationship of vaginal birth and prenatal consultations (≥6), with values of APGAR ≥7, although the group with APGAR <7 has presented vaginal delivery as prevalent. Is worth noting regional peculiarities, such as age, mothers aged 21–35 have children with APGAR <7 and newborns weighing over 2500g have worst APGAR, perhaps is due to this weight range being the prevalent. Such findings should be used to improve the prenatal care quality and the fathers’ participation in it, and to evaluate the delivery care quality, since the women at childbearing age and newborns with appropriate weight who are having lower APGAR scores.

P0782 A CASE-CONTROL STUDY OF INTRAHEPATIC CHOLESTASIS OF PREGNANCY INDUCED RESPIRATORY DISTRESS SYNDROME IN NEONATES

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Objectives: To investigate the association between maternal intrahepatic cholestasis of pregnancy (ICP) and neonatal respiratory distress syndrome (NRDS).

Method: A case-control study was conducted. There were 75 childbearing women identified with ICP in the study group and 75 cases in the control group. In both groups, maternal and umbilical cord blood cholylglycine levels were tested delivery. Mothers and infants were followed up to 7 days after delivery. Incidence of NRDS was compared between two groups. Conditional Logistic Regression mode was used for analysis of risk factors of NRDS.

Results: The average levels of cholylglycine in maternal serum was significant higher in study group than that in control (t=20.36, P<0.05). This was similar in comparison of the average level of neonatal cholylglycine (t=7.19, P<0.05). The odd ratio for NRDS was 4.57 among newborns in study group in contrast to control (OR=4.57, 95% CI: 1.23–16.94). Conditional Logistic Regression mode showed delivery in advance of expected date (OR=0.57, 95% CI: 0.40–0.83), cholylglycine levels of umbilical blood above 500ug/dl (OR=11.59, 95% CI: 3.14–42.71) were the major risk factors of NRDS.

Conclusions: Maternal ICP was significantly associated with the occurrence of RDS in the newborn.

Operative Obstetrics
P0783 UTERINE ARTERIOVENOUS MALFORMATION: A RARE CAUSE FOR SECONDARY PPH – A CASE REPORT

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Objectives: We discuss a case of secondary postpartum haemorrhage (PPH) diagnosed as arteriovenous malformation (AVM) of uterine artery on Doppler and angiography, and successfully managed by bilateral embolization.

Method: We report a case of arteriovenous malformation presented as secondary PPH. We review the literature for similar reported cases, and compare our surgical management with other management options, and discuss the outcome.

Results: We report a case of a 26 years old para 1 lady, who presented to the emergency department with heavy postpartum vaginal bleeding and passage of blood clots. She had C-Section 7 weeks prior to admission. On admission she had massive PPH. Hb levels dropped from 12g/dl to 6.2g/dl. She needed resuscitation with fluid and 4 units of blood, in addition to syntocinon infusion 40U. No cause identified. Angiography of uterine vessels was performed which showed lesions of arteriovenous malformation. Bilateral uterine artery embolization was done. The patient recovered well. She had no further heavy PV bleeding episodes.

Conclusions: We conclude that in a woman with unexplained vaginal bleeding after c-section delivery, AVM is a potentially life-threatening complication and should be considered in the differential diagnosis of secondary postpartum hemorrhage. Although data are scant, bilateral uterine artery embolization for obstetric hemorrhage appears to have no increased deleterious effect on future fertility and is more effective when compared to unilateral embolization.

P0784 A PILOT STUDY TO ASSESS THE ADEQUACY OF “BRIGHAM 20 KITS” FOR CESAREAN DELIVERIES AT AN URBAN HOSPITAL IN RWANDA

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Objectives:
• Create a standardized cesarean section kit that is COST-EFFECTIVE.
• Create a system to insure that the kits are intact.
• Introduce a system for counting instruments for patient safety.

Method:
• Brigham 20 Kits introduced into Kibagabaga Hospital in November 2011.
• 1 hour of education provided to staff.
W.A. Gebregiorgis

ETHIOPIA: A CASE SERIES OF 386 WOMEN SAFELY UNDERTAKEN BY NON-SPECIALIST CLINICIANS IN RURAL PRIMARY REPAIR OF OBSTETRIC UTERINE RUPTURE CAN BE

Results: With proper education and enforcement, Brigham 20 kits can provide:
- Consistent, higher quality instruments.
- An easy system for instrument counting.
- An easy system for instrument processing and inventory.

P0785

PRIMARY REPAIR OF OBSTETRIC UTERINE RUPTURE CAN BE SAFELY UNDERTAKEN BY NON-SPECIALIST CLINICIANS IN RURAL ETHIOPIA: A CASE SERIES OF 386 WOMEN

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Objectives: This study was undertaken to explore the outcome of repair surgery for uterine rupture and its associated factors at Aira hospital, West Ethiopia.

Method: A retrospective case record analysis was carried out over a 10-year period from January 2000 to December 2009. Population: 390 cases of uterine rupture.

Primary outcome measure was death before discharge from hospital. Data were collected using structured questionnaire. Data was cleared, coded and entered into computer software (SPSS) for analysis and findings were presented using tables, charts and graphs. Selected variables were cross-tabulated and tested for statistical associations with the outcome of treatment.

Results: There were 10,270 deliveries over the 10-year period. Uterine rupture occurred in 386 (3.7%) women and was surgically treated. Primary uterine repair, which was carried out by non-specialised doctors in 43% of cases, was the treatment for 98% of women, and appears to be simple and effective. Univariable analysis revealed that women were more likely to die if their labour lasted more than 24 hours (P=0.05), if their labour ceased more than 12 hours before treatment commenced (P=0.02).

Conclusions: Our series suggests that simple resuscitation with crystalsloid fluids followed by primary repair surgery can be safely carried out by non-specialist clinicians with varying experience, and has a low mortality rate in women who reach a suitable facility within 12 hours of uterine rupture.

P0786

CLINICAL EFFECT OF FETOSCOPIC LASER OCCLUSION OF CHORIOANGIOPAGOUS VESSELS FOR TWIN-TWINS TRANSFUSION SYNDROME: EXPERIENCE OF A CENTER FROM CHINA

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Objectives: To study the clinical effect of fetoscopic laser occlusion of chorioangiopagous vessels (FLOC) in treating twin to twin transfusion syndrome.

Method: The clinical data of 44 consecutive cases of TTTS who had FLOC in the Department of Obstetrics and Gynaecology of Peking University Third Hospital were reviewed and analyzed for perinatal complications, perinatal outcomes and fetal survival rate.

Results: There was 1 case of placenta vascular rupture in the operation. The average operation time was 60.1±15.1 minutes. There were 25 patients after FLOChaddeliveredintheperinatalperiod. The average gestational age of delivery was 33.5±2.7 weeks. The donor fetuses survival rate was 88% (22/25), the recipient fetuses survival rate was 100% (25/25). The birth weight of donor fetuses was significantly less than that of recipient fetuses (1631 vs 2071g, P=0.016). From Quintero staging I to IV, the rate that 44 cases of TTTS had entered the perinatal period was 4/7, 11/14, 7/19, 3/4, both twins survival rates were 4/7, 10/14, 5/19, 3/4, at least one fetal survival rate was 8/14, 21/28, 12/44, 6/8, respectively.

Conclusions: FLOC for TTTS is associated with a better survival rate. Quintero staging probably does not effectively predict the fetal diagnosis of TTTS after FLOC. When TTTS diagnosed, the sooner FLOC given, the better fetal prognosis had.

P0787

DOES SKIN INCISION-DELIVERY INTERVAL AND INDUCTION-DELIVERY INTERVAL AT ELECTIVE CAESAREAN SECTION HAVE ANY EFFECT ON NEONATAL OUTCOME?

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Objectives: To determine the effect of skin incision -to - delivery interval, and induction of anaesthesia -to - delivery interval during elective caesarean section, on neonatal Apgar score.

Method: A cross-sectional study of elective caesarean sections done at Nnamdi Azikiwe University Teaching Hospital, Nnewi, South-east, Nigeria from January 2008 to Dec 2012. Patients with high risk fetal or maternal obstetric conditions were excluded from the study. Women with previous caesarean section were however included. Information on socio-demographic characteristic, the indication for surgery, type of anaesthesia, the induction-delivery interval (InDI), incision-delivery interval (IDI), first and fifth minute Apgar scores and birth weight of the babies were obtained and documented. Statistical analysis was done using SPSS version 17.0 for windows.

Results: A total of 154 patients were included in the study. The mean InDI was 8.58±4.66 minutes and the mean IDI was 11.08±4.89 minutes. No association was found between the IDI and neonatal Apgar scores at first minute (p=0.999) and 5th minute (p=0.978). There was no association between InDI and neonatal Apgar scores at first minute (p=0.842) and 5th minute (p=0.364). There was also no association between the type of anaesthesia and first minute and 5th minute Apgar scores (p=0.184 and 0.767 respectively).

Conclusions: The IDI and InDI at elective caesarean section have no significant effect on neonatal Apgar scores in a tertiary health care facility. Awareness of this fact could obviate the need for speed during elective caesarean sections and focus therefore should be more on improved techniques and interventions that would reduce maternal and neonatal morbidity and mortality.

P0788

CLINICAL ANALYSIS OF EMERGENCY PERIPARTUM HYSTERECTOMY, A 5 YEARS REVIEW

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Objectives: To investigate the incidence, indications & outcome of emergency peripartum hysterectomy.

Method: A retrospective analysis of case files of patients who required emergency peripartum hysterectomy at the department of obstetrics & gynaecology, Shalamar Hospital, Lahore, Pakistan from Jan, 2010 to Dec, 2014 was conducted. Their demographic data, indications, outcome including maternal morbidity (ICU admission, Blood transfusion, urological injuries, DIC) and maternal deaths were recorded and analyzed in SPSS version 13.

Results: During 5 years, 22 cases out of 10.030 deliveries were required emergency peripartum hysterectomy giving incidence of
2.1 per 1000 deliveries. 86.4% (19 patients) had cesarean sections whereas 13.6% (3 patients) had vaginal deliveries. Out of 22, 13 patients (59%) had abnormal adherent placenta, 8 patients (36.6%) had uterine atony. All patients with abnormal adherent placenta had previous cesarean sections. 100% patients needed blood transfusion, 54% needed ICU admission, 18% had urological injury, (one got vesiqovaginal fistula). One patient needed reopening for suspicion of internal bleeding. Maternal deaths were recorded in 2 patients due to coagulopathy (DIC).

Conclusions: Abnormal adherent placenta is the major cause of emergency peripartum hysterectomy and is associated with significant maternal morbidity & mortality. Previous cesarean section is the primary cause of abnormal adherent placenta, so decision for primary section should be taken with proper indication.

P0789
CESAREAN MYOMECTOMY: IS IT SAFE AS A CESAREAN?
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Objectives: To find out the postoperative complications and outcomes in Cesarean Myomectomy and compare it with complications in a routine Cesarean.

To find out if there is increased morbidity in Cesarean Myomectomy.

Method: Study design: Retrospective Comparative Study.

Study setting: Government Medical College, Thrisssur.

Study period: March 2008 to December 2014.

Study Population: 30 women who underwent cesarean myomectomy were compared with 30 women who underwent routine cesarean section.

Analysis: Parameters analysed were operating time, intraoperative blood loss, as indicated by need for blood transfusion or fall in hemoglobin percentage, postoperative morbidity, need for relaparotomy and hysterectomy.

Results: Mean age and mean hemoglobin of the two groups were comparable. The mean operating time in cesarean myomectomy was 79.26 minutes which was slightly more than a routine category 4 cesarean. Fall in hemoglobin in cesarean myomectomy was 0.31 g/m%.

There were no cases of relaparotomy or hystectomy in the myomectomy group.

Conclusions: Cesarean myomectomy in selected cases may be an appropriate surgical intervention without significant increase in risk or morbidity compared to routine cesarean. The duration of surgery is more than cesarean, but this potentially avoids a future surgery for the patient.

P0790
EMERGENCY PERIPARTUM Hysterectomy: A FIVE YEAR RETROSPECTIVE STUDY
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Objectives: Peripartum hysterecomy is a major surgery which may be the last resort to save a woman's life but makes her sacrifice the reproductive capability. The objectives of this study were to determine the incidence, indications, associated risk factors and complications of emergency peripartum hysterecomy at a tertiary care hospital in north-east India.

Method: This is a retrospective analysis of 62 cases of emergency peripartum hysterecomy among 57535 deliveries from January 1, 2010 to December 31, 2014 at Regional Institute of Medical Sciences, Imphal, India. The incidence, indications, associated risk factors and outcome of emergency peripartum hysterecomy were studied.

Results: Out of 57535 deliveries during 5 years study period. 62 (0.10%) women underwent hysterecomies. Out of them, 56% of the women were booked, with a mean of 4.22 antenatal visits. Uterine atony (56%), morbidity adherent placenta (25%) and uterine rupture (10%) were the main indications of hysterectomy. Increased parity and post cesarean pregnancy was at increased risk. Three women died (4.8%) during operation and 8 (12%) women were admitted to the intensive care unit postoperatively. The study showed a good fetal outcome as 76% of the babies has an Apgar Score of ≥7 at 5 minutes.

Conclusions: The present study suggested that uterine atony, placenta accreta and uterine rupture were the most common indications for emergency peripartum hysterectomy. With only three (4.8%) maternal death and good foetal outcome, the study reiterated the importance of emergency peripartum hysterectomy in modern obstetric practice as an indispensable life-saving procedure to reduce the maternal mortality rate.

P0791
FEAR, BLAME AND TRANSPARENCY: CAREGIVERS’ RATIONALS OF A HIGH CAESAREAN SECTION RATE IN A LOW-RESOURCE SETTING
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Objectives: To explore obstetric caregivers rationales of their hospital's high CS rate in order to identify factors that might lead to an overuse of cesarean section in a university hospital in Tanzania.

Method: A qualitative study performed in the country's public teaching and referral institution in Dar es Salaam. Six months of participant observations in 2012 and short periods of 2010 and 2014 were jointly conducted with twenty-two semi-structured individual interviews and two FGDs with five caregivers in each. Respondents included consultants, specialists, residents, and midwives, of age between 27-70 years; and working experience of 2 to 45 years. A framework of naturalistic inquiry and thematic data analysis was used. As a conceptual framework, our discussion was within the on-going debate about blame avoidance and how transparency and auditing can alter staffs' behavior.

Results: Caregivers had divergent opinions on whether the hospital’s CS rate was a problem or not. They rationalized high CS rate by referring to factors outside their control. Although, economic compensation affected some caregivers, the major drive behind an overuse of CSs in private patients was caregivers’ concern to avoid poor perinatal outcomes and meet clients’ demands. Residents reported lack of support from senior colleagues when making decisions, and felt pushed by midwives to perform CSs. Fear for being blamed by colleagues and management in case of poor perinatal outcomes was evident and made them advocate for CSs on doubtful indications.

Conclusions: The study demonstrated caregivers withdraw from their responsibility of rising CS rates. In order to address an overuse of CS, caregivers need to acknowledge their role as decision-makers and medical experts and strive to minimize unnecessary CSs. Incen- tive and pressure to meet demands of private client and miscommunica- tion between hospital staff can lead to unnecessary CSs. Therefore, clear and accessible guidelines of private practice should be enforced. Although auditing and transparency are important to improve patient safety, they must be used with sensitivity for any unintended or contra productive effects they might have.
P0792
A NOVEL TECHNIQUE OF TOURNIQUET APPLICATION TO MINIMIZE INTRA-OPERATIVE BLOOD LOSS IN PLACENTA ACCRETA CASES REQUIRING CAESAREAN HYSTERECTOMY – OUR EXPERIENCE

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Objectives: To assess the efficacy of tourniquet for minimising intra-operative blood loss in cases of placenta accreta requiring caesarean hysterectomy.

Method: Nine cases of diagnosed placenta accreta with previous caesarean section were chosen to utilize this novel approach. These cases were planned for caesarean section followed by hysterectomy. The utero-vesical fold was dissected using scissors and the bladder was pushed down if possible. The baby was delivered through upper segment caesarean section and then a tourniquet of cotton gauge was tied all around the lower pole of uterus by making a window in the broad ligament on both sides at the level of internal os. This step minimized the blood loss tremendously. The total hysterectomy was performed with placenta in situ.

Results: Total average operative time taken was 50 minutes. Average blood loss was 800–1200 ml approx. Blood transfusion required was two units on an average in any case. No intra-operative or post operative surgical complication seen in any case. Both mother and baby were healthy at discharge in all the cases.

Conclusions: The presence of placenta accreta/increta/percreta is associated with major feto-maternal complications as its incidence is increasing day by day. This tourniquet application is very helpful in associated with major feto-maternal complications as its incidence is increasing day by day. This tourniquet application is very helpful in

P0793
INFLUENCE OF BOLUS ADMINISTRATION OF OXYTOCIN ON CARDIOVASCULAR SYSTEM DURING CAESAREAN DELIVERY

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Objectives: During caesarean delivery, oxytocin is often used to help uterine contraction and to reduce uterine bleeding. Some of adverse effects such as tachycardia, hypotension, and ST-T depression on electrocardiogram (ECG) have been reported to occur after bolus administration. We have investigated whether influence of bolus administration of oxytocin on cardiovascular system may be dose dependent retrospectively.

Method: 383 patients were underwent caesarean section from January to November, 2014 in our hospital. Three patients were excluded because of their history of heart disease. Caesarean section was underwent under spinal and/or epidural anesthesia and five or ten units of oxytocin were intravenously administrated immediately after the delivery which dissolved in 500 mL of saline and dripped full open. Bleeding amount as the effect of oxytocin and the change of heart rate, blood pressure and ST-T depression as the influence were compared between the five-unit- (5U) and the ten-unit-administration (10U).

Results: Bleeding amount were not so much different between 5U and 10U. Increase of heart rate, decrease of blood pressure, and ST-T depression were observed immediate to twenty minutes after administrating oxytocin in both groups. There was significant difference in heart rate between 5U and 10U within five minutes after the administration. However, No other differences were found in blood pressure and ST-T depression between 5U and 10U.

Conclusions: Five units and ten units of oxytocin were comparable for uterotonie effect. However, there were not any remarkable dose depending adverse effect of oxytocin for cardiovascular system.
rhage. Leading indications were morbidly adherent placenta in 26 cases, ruptured uterus in 9 cases, uterine atony in 8 cases. Mean operative time was 100 minutes. 6 bladder injuries repaired successfully. Mean blood loss was 2000ml and transfusion was required in all cases. Mean hospital stay was 7 days. There was one maternal mortality and rest of patients remained stable postoperatively.

Conclusions: Morbidly adherent placenta has got a lead over uterine atony as an indication for obstetrical hysterectomy.

**P0799**

LOW FORCEPS APPLICATION: A LOST ART OR USEFUL TOOL TO REDUCE LSCS RATES

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Objectives: To assess the effect of low forceps applications on LSCS rates.

Method: Retrospective analytical study of a hospital data from October 2010 to April 2014. Total 4184 patients were delivered out of which 2578 had normal vaginal delivery, 1301 underwent LSCS; 200 were delivered by forceps application – 68 outlet & 132 low forceps; 105 Vacuum assisted vaginal delivery. Assuming that the patients delivered with low forceps would otherwise land up in LSCS the LSCS rates were calculated. The complications if forceps group were compared with random one year LSCS and normal delivery patients.

Results: The LSCS rate was 31.1% when low forceps delivery was conducted which would have been 34.1% had these patients undergone LSCS. By application of both tests: chi square test and standard error of difference between proportions; the difference was found to be statistically significant.

Conclusions: In expert hands low forceps applications significantly reduces LSCS rates, without significant increase in maternal & neonatal morbidity.
ful clinical indicator on judgement of selecting cerclage procedure. In the present study urgent cerclage brings an excellent result, while it is notable that it possess a risk of inducing inflammation like CAM.

**P0801**  
**AN EVALUATION OF THE SERVICE PROVISION BY INTERVENTIONAL RADIOLOGY IN THE MANAGEMENT OF POSTPARTUM HAEMORRHAGE IN THE UNITED KINGDOM**  
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**Objectives:** Guidelines advise that interventional radiology is an important management option both for the prophylactic planning for anticipated post partum haemorrhage, and emergency treatment of postpartum haemorrhage. The utilisation of intervention radiology for these indications is however variable. This study aimed to evaluate the provision of intervention radiology services for post partum haemorrhage management in the UK.  
**Method:** Online questionnaires were emailed to 498 Consultant Interventional Radiologists, identified from the electronic mailing list of the British Society of Interventional Radiologists. These questionnaires explored the availability and accessibility of intervention radiology for management of post partum haemorrhage in units, the level of confidence of the radiologists in offering these services and the barriers if any to utilizing the service appropriately or adequately.  
**Results:** Of 100 completed questionnaires received, 89 worked in units providing some cover for post partum haemorrhage control (70 stating this service was available 24/7), and 11 in units with no provision for this service. Most utilised prophylactic pre-procedure balloons and embolisation postdelivery; however, only 35% considered themselves to have a good level of competency with these procedures. In emergency cases the median time lag from referral to the intervention radiology procedure was 30 to 60 minutes. All respondents viewed the provision of intervention radiology for post partum haemorrhage as important.  
**Conclusions:** The 20% response rate is partly explained by not all sent the survey eligible to complete it (eg. some radiologists not working within intervention radiology any more, or having moved abroad). This study found that guidelines advocating more widespread use of intervention radiology are not met to an acceptable standard. Limitations reported include obstetricians not utilizing the service often enough, or radiology and maternity being on different sites. Greater awareness of the role of intervention radiology, and better communication between the disciplines managing post partum haemorrhage may help to ensure best practice is achieved.

**P0802**  
**NEW SURGICAL APPROACHES DURING MASSIVE BLEEDING IN OBSTETRICS**  
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**Objectives:** To find out differentiated surgical approaches during caesarean section in order to reduce intraoperative blood loss.  
**Method:** A case-control study was held in 56 pregnant, who had high rates of blood loss during cesarean section. Evaluation scale of blood loss was formulated in RSS&PMC of Ob&Gyn depending on the anatomical localization of the bleeding source: Level 1 – bleeding from the uterine at uterine atony; Level 2 – bleeding from uterine isthmus and lower segment; Level 3 – bleeding from the cervix, the upper third of vagina, parametrium and retroperitoneal space. In cases of inefficient treatment, there were carried out next steps of surgeries – phased uterine devascularization, in the absence of effect - hysterecomy.  
**Results:** Level 1 bleeding was in 48.2%. Ligation of tubal artery in 7.4%, or imposition of compression sutures in 7.4% was performed. Estimated blood loss was 982±78.2 ml. Level 2 was diagnosed in 26.7% with bleeding volume 1183±28.8 ml. Surgical interventions included imposition of compression sutures in 13.3%, ligation of tubal artery in 33.3%, hysterecomy in 6.6%. With level 3 were 25% patients with hemorrhage 1555.5±196.2 ml. Surgical interventions included ligation of internal iliac artery with hysterecomy in 28.5%, and only hysterectomies in 42.8%. Conservative treatment was effective in 92% during Level 1 bleeding.  
**Conclusions:** 1. Level 1 bleeding often relievers conservatively with adequate medical methods. 2. When level 2 bleeding ligation of tubal artery, imposition of compression sutures on the uterus is quite effective. 3. When Level 3 bleeding should be applied ligation of internal iliac arteries as well as a first-aid measures.

**P0803**  
**MEASUREMENTS OF THE LOWER UTERINE SEGMENT AT TERM IN WOMEN WITH PRIOR CESAREAN DELIVERY**  
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**Objectives:** To evaluate the accuracy of sonographic measurements of the lower uterine segment (LUS) thickness at term in predicting uterine scar defects in women with prior cesarean section (CS).  
**Method:** Sixty-three pregnant women who underwent CS between 37 and 41 weeks of gestation from October 2013 to February 2015 were enrolled in this prospective study. We performed an ultrasound evaluation of the myometrial thickness and full thickness of LUS (mLUS and fLUS, respectively) transvaginally before they underwent a CS and evaluated the appearance of LUS during surgery. Sonographic LUS thicknesses were compared with LUS grade, which was defined as follows: grade I, well-developed; grade II, thin without visible content; grade III, translucent with visible content; and grade IV, either dehiscence or rupture.  
**Results:** We observed statistically significant differences in median mLUS thickness between grades I/I (1.52 mm) and grades III/IV (0.75 mm) \(p=0.0178\) and in median fLUS thickness between grades I/I (4.05 mm), and grades III/IV (2.48 mm) \(p=0.0031\). We found that both mLUS and fLUS were independent predictive factors by multivariate logistic regression analyses. ROC analysis showed that LUS thickness for prediction of LUS grades III/IV was 0.97 mm of mLUS and 3.13 mm of fLUS, having a sensitivity of 83.3%, a specificity of 85.7%, a PPV of 45.5%, and a NPV of 97.3% in both measurements.  
**Conclusions:** Sonographic measurements of LUS at term may be a feasible and reliable method to predict uterine rupture or uterine dehiscence in women with prior CS.

**P0804**  
**CESAREAN SECTIONS: PROFILE OF PATIENTS IN A CAPITAL IN THE NORTHERN BRAZILIAN AMAZON**  
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**Objectives:** Evaluate the profile of patients who had cesareans and vaginal deliveries in the Hospital Materno-Infantil Nossa Senhora de Nazaré (HMINSN) in a capital in the extreme north of the Brazilian Amazon. Also, discuss the proportion in which these types of deliveries take place at the hospital to meet the predominant type of delivery.  
**Method:** The study was conducted at the Mother and Child Hospital Our Lady of Nazareth, maternity located in Boa Vista, the capital of Roraima, northern Brazil. This is a descriptive, retrospective, cross-
sectional, which reviewed 4143 records, of which 3947 were ade-
quate because they contain the variables: delivery route, age, mari-
tal status, where carried out prenatal, patient origin and number of
pregnancies, from November 2012 to July 2013. Statistical analysis
was performed using Epi info 7, using the chi-square test for propor-
tion of qualitative variables with $\alpha \leq 5\%$. This study was approved by
the university’s Ethics Committee.

**Results:** From the total, 39.7% were cesarean section and 60.3% vagi-
nal. The average age for vaginal delivery – 23, and cesarean section –
24 years.

Patients undergoing vaginal and cesarean delivery, respectively: Age:
45%, 21 to 30 years; 51% 21–30 years; Origin: 64.4% capital; 69.7%
capital; Prenatal: 95.3% public; 88.4% public; Marital status: 74% mar-
rried; 76% married; previous pregnancies: 75% 1–3; 76.7% 1–3 preg-
nancies.

Among the total, 35% of deliveries were on young patients (<20
years), and patients >30 years, 17.2%. The births on young patients
and elderly had predominance of vaginal, 67.31% and 64.4%, respec-
tively.

**Conclusions:** It is observed that the profile of patients undergoing
vaginal and cesarean delivery was similar, characterized by being
young patient 23 years (vaginal) and 24 (cesarean), residing in Boa
Vista, who performed prenatal care on the public network, mar-
rried/stable relationship, with 1–3 previous pregnancies.

Unlike other regions, a high number of births is found among adoles-
cents of Roraima suggesting peculiarities in population and cultural
matters. Therefore, it is important to recognize these factors so that
is possible to take actions to reduce the number of cesareans, which
increase maternal morbidity and mortality rates, and increases ex-
penses for the health system.

**P0805**

**THE EFFECT OF DEPRESSIVE AND ANXIETY SYMPTOMS DURING PREGNANCY ON THE RISK OF OBSTETRIC INTERVENTIONS**

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Calgary, Calgary, AB, Canada

**Objectives:** The effect of prenatal mental health on the risk of ob-
stetric interventions is unclear. The present study examined the as-
ociations between depressive and anxiety symptoms in the second
and third trimesters and mode of delivery, epidural use and labor
induction in a large community-based pregnancy cohort, in Alberta,
Canada.

**Method:** Women who had singleton pregnancies, delivered in hos-
pital, and had medical data were selected (N=2825). Obstetric inter-
vention data were obtained from the medical records, and depres-
ive and anxiety symptoms were measured by Edinburgh Postna-
tal Depression Scale and Spielberger State Anxiety Inventory. Data
were evaluated with multivariate multinomial and logistic regression
analyses using a hierarchical modeling.

**Results:** After accounting for factors known to increase the risk of
each intervention including demographic variables, smoking, hos-
pital site, gestational age, previous history of cesarean delivery,
prepregnancy body mass index, assisted conception, and antepartum
risk score, the only mental health variable associated with obstetric
interventions was depressive symptoms in the third trimester, which
increased the risk of emergency cesarean delivery (AOR 2.04; 95% CI
1.26–3.29). No associations were found between antenatal depres-
sive and anxiety symptoms and other obstetric interventions.

**Conclusions:** The present findings support an association between
depressive symptoms and adverse obstetric outcomes and suggest
that anxiety and depression may have different effects on obstetric
outcomes. Understanding the mechanism in which depression in-
creases the risk of emergency cesarean birth needs further research.

**P0806**

**PREVALENCE OF CESAREAN SECTION IN A LOW RISK MATERNITY IN BAIXADA FLUMINENSE, RJ, BRAZIL, IN A PERIOD OF TWO AND A HALF YEARS**

S. Teixeira, A. Cunha, M. Nascimento, E. Gerde, C. Feitosa, C. Nunes. Hospital Maternidade Terezinha de Jesus, Mesquita, Rio de Janeiro, Brazil

**Objectives:** Assess the prevalence of cesarean section in a low risk
maternity in Baixada Fluminense -RJ - BRAZIL, in a period of two and
a half years.

**Method:** Design. Cross-sectional study.

Setting. Baixada Fluminense, an area in Rio de Janeiro state, with
3,500,000 inhabitants and a reference for 11 counties. In this area
the government of the State built a maternity in June 2012 to as-
sist low rik pregnancies, which is managed by a private organization
Hospital Maternidade Terezinha de Jesus and monitored by the gov-
ernment. The maternity has 70 beds for pregnant patients and 10
for intermediate care for the new born. The data were collected from
the data base of the administration and they analysed using the Epi
Info programm.

**Results:** The activities cared in this cenario were 2,222 maternal ad-
missions in 2012 (6 months), 7,518 in 2013 (12 months) and 8,787
in 2014 (12 months); normal deliveries 1,310 (2012), 4,177 (2013)
and 5,220 in (2014); forceps deliveries 10 (2012), 55 (2013) and
42 (2014); cesarean sections 447 (2012), 1,511 (2013) and 1,552
(2014). The qui square statistics for trend of cesarean section was
14.20 (p value=0.00016, significant for a risk increase OR=1.06 in
2013, but a decrease OR=0.871 in 2014. There 25 stillbirth in 2012
(rate of 14.1/1,000), 88 in 2013 (rate of 15.32/1,000) and 17 in 2014
(2.53/1,000).

**Conclusions:** It was possible to keep a low prevalence of cesarean
section in low risk patients and a low rate of neonatal mortality. The
high fetal mortality rate was due to non optimal prenatal care.

**P0807**

**RETROSPECTIVE COMPARATIVE STUDY BETWEEN INFRAUMBILICAL C SECTION AND MISGAV-LADACH TECHNIQUE IN OUR ENVIRONMENT**

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V. Menezes, H. Rangel, D. Viacava. Tecnologico de Monterrey,
Monterrey, Nuevo León, Mexico

**Objectives:** To compare the surgical outcomes of Misgav Ladach
modified method (MLM) with infraumbilical technique (IMI) in our
environment.

**Method:** A retrospective, observational, case control in which clinical
records were reviewed of all patients with cesarean delivery in the
months of February and March 2011 in the Hospital HMI, NL, Mexico.
We included all patients with normal evolutionary pregnancy with-
out previous surgery, separated into two groups (cases and controls)
to compare the operative time and time of birth. We excluded pa-
tients with diseases associated with pregnancy, premature, previous
surgery, or information was incomplete. Statistical analysis was per-
formed using the U test of Mann-Whitney for comparison of the vari-
ables considered statistically significant at p < 0.05.

**Results:** We obtained a group of 242 patients with IMI technique
controls and 57 with MLM technique cases). The mean operating
time of the IMI was 42.99 minutes (± 14 496) compared with the
MLM technique of 30.6 minutes (p < 0.0001). The mean extraction
time in the IMI was 5.93 minutes (± 3869) compared with the MLM
technique of 2.84 minutes (p < 0.0001). Postoperative pain was mea-
sured in two groups of patients 59 (IMI) and 57 (MLM). The mean
pain of the IMI was 3.54 compared to MLM who presented a value of
2.45 (p < 0.0001).

**Conclusions:** There is a statistically significant difference in surgical
time and time extraction of the newborn in the MLM. Blood loss in both surgeries is expressed subjectively by the surgeon, nosignificant differences in both techniques. Postoperative pain measured by the visual analog scale showed a lower intensity in the MLM group statistically significant. There were no patients in either group with fever.

P0808
THE EFFECT OF EARLY ORAL INTAKE TO REGULAR DIET TOLERATED OF CESAREAN WOMEN IN RESIDENT TRAINING SETTING: A RANDOMIZED CONTROLLED TRIAL
C. Nantasupha, P. Ruangwutthilert, I. Ruengkhachorn. Faculty of Medicine Siriraj Hospital, Bangkok, Thailand

Objectives: To compare time to regular diet tolerated between conventional step diet, early oral feeding (EOF) and EOF with domperidone of women who underwent cesarean section by obstetrics and gynecology residents.

Method: Randomized controlled trial in women who underwent cesarean section by obstetrics and gynecology residents at Siriraj Hospital, Bangkok, Thailand during September 2014-February 2015. The pregnant women were randomly assigned to three comparative studied arms; arm 1 is conventional step diet, arm 2 is EOF, and arm 3 is EOF with domperidone. The mean time to regular diet tolerated was compared.

Results: 63 patients were met the inclusion criteria. Median age of studied patients was 28 (range 18-41) years. The median operative time was 47 (range 29-160) minutes. The median blood loss was 350 (range 150-900) ml. Adminal adhesion was noted in 8 women (12.7%). Overall, the mean time to regular diet tolerated was 41.4±16.2 hours, which arm 2 showed the shortest significantly. The mean hospitalization was 2.9±0.9 days. In arm 2, the trend of satisfaction score was highest. There was no significant difference in mean of pain score, rate of postoperative ileus and surgical site infection in between groups.

Conclusions: EOF without domperidone should be standard practice in postoperative cesarean section.

P0809
REPEATED CAESAREAN SECTION – POTENTIAL FACTOR FOR SERIOUS OBSTETRIC COMPLICATIONS
S. Lulaj, A. Lila, A. Lulaj. Gynecology & Obstetrics Clinic – Prishtina, University Clinical Centre of Kosovo, Prishtina, Kosovo

Objectives: Objective of this study is the analysis of the trend of cesarean section births in the Republic of Kosovo and serious obstetric implications as a consequence of repetitive births via cesarean section.

Method: In the two million inhabitant Republic of Kosovo, public and private health institutions, during the period from 2000 to 2014, have reported 458,191 births, of which 75,377 delivered via cesarean section. Repeated cesarean sections are a potential factor for serious obstetric complications. Study data is presented through graphs, echographic images and photographs.

Results: Study data shows that cesarean section birth rate is annually increasing, from 7.5% in 2000 to 28.4% in 2014. The complications which obstetricians are faced are Cesarean scar pregnancy, diagnosed until the 12 gestational week and which have usually ended with total abdominal hysterectomy and pathological insertion of placenta into the frontal wall of the uterus, placenta accreta, increta and percreta. Such obstetric cases are also accompanied by a dramatic situation in operating theatres due to profuse bleeding. Majority of these cases end up with total abdominal hysterectomy, multiple blood transfusions and in some cases with urinary tract injuries.

Conclusions: Increase of the ratio of births with cesarean section in Republic of Kosovo from 7.5% in 2000 to 24.8% in 2014 is worrying.

Among serious obstetric complications in births with repeated cesarean section are cesarean scar pregnancy, placenta previa, placental insertion in the frontal wall of the uterus and pathological insertion, consequence of repeated cesarean sections, multiple transfusion of blood and its products and urinary tract injuries.

P0810
OBSTETRIC HYSTERECTOMY IN PATIENTS WITH PLACENTA ACCRETA, INCRETA AND PERCRETA: COMPARISON OF TWO SURGICAL TECHNIQUES, GENERAL HOSPITAL OF OCCIDENTE, JALISCO, MEXICO
R.C. Ortiz Villalobos, A. Bañuelos Franco, R.F. Serrano Enriquez, E.E. Luna Covarrubias. Secretaría de Salud, Jalisco, Mexico

Objectives: To analyze maternal and fetal complications in patients with placenta accreta, percreta or by utilizing two surgical techniques obstetric hysterectomy in the General Hospital of Occidente, Jalisco, Mexico from 2011 to 2014.

Method: Quantitative study, descriptive, retrospective, analyzing complications in patients with placenta accreta, increta or percreta, intervened with two surgical techniques obstetric hysterectomy: a) modified hysterectomy (published: Ginecol Obstet Mex 2014:82:194–202) and b) conventional hysterectomy. Was resorted the medical records: insertion type placental and analyze bleeding, hospital stay, blood transfusion, admission to intensive care. Data is captured in Excel and processed in epi-info 7 calculating frequencies, percentages, measures of central tendency and dispersion.

Respond raised the alternative hypothesis: the bleeding with the modified surgical technique is less with the conventional technique, using the z test for difference of means.

Results: Study period 71 obstetric hysterectomies were performed, 34 (47.88%) placenta: accreta (23), increta (6) and percreta (5). 16 patients were with modified technique (group 1) and 18 with conventional technique (group 2).

Group 1: median days hospital stay 5, 18.8% income intensive therapy, 94.4% needed blood transfusion, bleeding median 2293 milliliters (± 1308).

Group 2: median days hospital stay 6.5, 61.1% income intensive therapy, 56.2% needed blood transfusion, bleeding median 4483 milliliters (± 2506).

Hypothesis test, value z of ~3.2424, with value 0.05 was found accepting hypothesis that bleeding technique surgical modified, is smaller than bleeding with the conventional technique.

Conclusions: The results serve two main purposes: to save the life of the patient and cause the least amount of secondary morbidity to this placental problems in both the mother and the newborn, highlighting minor bleeding from a technical and noting the null presence of maternal deaths from this cause, which affects the progress of the fifth Millennium Development Goal: Improve maternal health.

P0811
EXPANSION OF CEONC SERVICES LEADS TO REDUCING MMR IN NEPAL
I.P. Prajapati. Family Health Division, Kathmandu, Nepal

Objectives: To expand CEONC services through regular mentoring, monitoring and supervision for reducing MMR.

Method: Nepal government developed the plan for expansion of CEONC service sites in the district. Planning workshop and series of review meetings have been conducting at local level (hospitals) and developed the particular action plan locally with intra-sectorial coordination. The process and programs have been facilitating and following by CEONC mentor.

Results: Despite geographical, political and economic hardship, government expanded CEONC service sites from 14 in 1995 to 63 dis-
tricts in 2014. Although, GoN had aim to expand CEONC sites in 60 districts by 2017 in National Safe Motherhood Plan 2002 to 2017 (revised 2006), it has been already achieved and exceeded in 2014. With regular monitoring and supportive supervision, CEONC sites have been functioning and reached C/S rate 1% in 1996 to 4.5% in 2011.

Conclusions: Government’s commitment to establish CEONC sites through given emphasis on national plan and policy is vital. However, without regular monitoring, supervising and coaching to the health workers the functionality of services is not possible in Nepal.

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**P0812**

**ANALYSIS OF THE CLINICAL RISK FACTORS OF SEVERE PLACENTA INCRETA/PERCRETA**

C. Yunshan, Z. Yangyu, W. Yan, Z. Yiwen, S. Qing. Peking University Third, Beijing, China

**Objectives:** To explore the clinical risk factors of severe placenta increta/percreta.

**Method:** A retrospective study was used to obtain histories of patients with diagnosis of placenta acrreta/increta/percreta from 2003 to 2014 in obstetric and gynecology department of Peking university third hospital, using logistic regression method to single factor and multiple factors analysis, to find severe placenta increta/percreta high risk factors.

**Results:** 633 patients were included, 69 cases placenta increta/percreta and 564 cases acreta. Single factor regression analysis results suggest placenta previa, pregnant times, production times, scared uterus, primary elective caesarean delivery, cavity operation times, multiple pregnancy was statistically difference (P < 0.05). When complicated with previa is more serious, as increasing number of cesarean section, severe placenta increta/percreta rate OR=12.915 (5.714, 29.192) (1 time cs) vs OR=76.154 (8.920, 650.158) (2 times cs). Further multiple factors regression analysis result shows that placenta previa, scared uterus, multiple pregnancy are important high risk factors of placenta increta/percreta.

**Conclusions:** To strengthen monitoring for all pregnant women with placenta previa or caesarean, especially combined with multiple pregnancy, severe placenta increta and percreta should be vigilant.

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**P0813**

**EFFICACY OF ULTRASOUND IN THE ASSESSMENT OF TYPES OF PLACENTA ACCRETA AND ASSOCIATED BLEEDING RISK**

C. Yiwen, Z. Aiqing, W. Yan, L. Zhaohui, C. Yunshan, Z. Yangyu. Peking University Third Hospital, Beijing, China

**Objectives:** To discuss the value of ultrasound in assessing the different types of placenta accreta and the associated bleeding risk.

**Method:** Collecting the ultrasound images of 27 patients with placenta percreta and 38 patients with increta from January 2005 to November 2014, who were diagnosed through operation and pathology. For the control group, choosing 115 patients with accreta under the same criteria.

We devised a scoring system, giving a score of 0, 1, 2 according to the condition of the placenta position, placenta thickness, clear space, bladder line, lacuna, subplacental vascularity, cervical morphology and sinus, and history of cesarean section. We compare if there are differences between the three groups in their scores and the hemorrhage or the uterine resection rate.

**Results:** For the patients with accrete (group 1), increta (group2), percreta (group3), the scores were 1.88±1.45, 6.08±2.62, 8.74±2.75 respectively. Comparing 1 and 2, 2 and 3, the results were p < 0.001; By ROC curve, the “cut-off” values between 1 and 2, 2 and 3 were 2.5 and 9.5. The median hemorrhage in 1, 2, 3 were 200/2095/4700 ml respectively. Comparing 1 and 2, 1 and 3, p < 0.001; however, p = 0.371 comparing 2 and 3. The uterine resection rates of 1, 2, 3 were 0 (0/115), 18.4% (7/38), 44.4% (12/27) respectively. The comparison between 1, 2, 3 are all statistically significant.

**Conclusions:** Ultrasound is an effective diagnostic tool that can assess the types of placenta accrete, predict the associated bleeding risk, and alert the possibility of hysterectomy. It also facilitates preoperative planning and guides physicians in formulating subsequent treatment plans.

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**P0814**

**MANAGEMENT OF PATIENTS WITH PLACENTA ACCRETA: CASE SERIES**

A. Aleyasin, S. Eskandarian, Tehran University of medical sciences, Tehran, Iran; Shariati Hospital, Tehran, Iran

**Objectives:** Placenta accreta is one of life threatening obstetric concerns. The generally blood loss at delivery in women with placenta accreta is 3,000–5,000 ml. In the relationship to the increasing cesarean delivery, the incidence of placenta accreta has increased as high as 1 in 533 pregnancies during recent decades. The most important risk factors of placenta accreta are prior cesarean and placental previa which overlying previous cesarean scar. Other risk factors include maternal age greater than 35, any myometrial damage include previous myomectomy and curettage.

The aim of this case series is to discuss the management of pregnancies with placenta accreta.

**Method:** Four patients ranged between 24 and 39 years, is discussed in this article. The first case (G5P3 Ab2) with two prior cesarean, admitted at 33 weeks gestation with total previa and accreta placenta diagnosis in sonography. Second case (23 weeks of gestation, G3P2/C/S2) was admitted because of vaginal bleeding. The ultrasoundography was confirmed the placenta accreta and complete placenta previa. Third case (24 weeks of gestation, G4P2Ab1) with one prior cesarean was referred because of two vaginal bleeding episodes. Forth case (G5P4) with four prior cesarean, was admitted at 31 weeks gestation because of vaginal bleeding and total previa placenta.

**Results:** The elective cesarean section was scheduled at 34 weeks of gestation in first and forth case and preoperative anesthesia consultation has been done in all cases. Before the surgery the risks and complications associated, including hemorrhage, need for blood transfusion and possible hysterectomy had all been discussed with the patients and consent was obtained. Adequate blood and clotting factors was available. A multidisciplinary team was organized. General anesthesia was administered in all cases. After baby delivery, Hysterectomy has been performed immediately with placenta in situ and undisturbed. Estimated blood loss during the surgery was 2.5 to 4 liters.

**Conclusions:** For differentiation between placenta accreta, increta and percreta histopathological examination is unavoidable. Placenta percreta in third case and placenta percreta in other cases was diagnosed in Histopathological examination. Pregnant women with placenta accreta risk factors should be inspected through pregnancy. A planned preterm cesarean hysterectomy is recommended in patients with placenta accreta probability. Separation of placenta by force in these cases causes severe intraoperative bleeding and increasing maternal morbidity and mortality.

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**P0815**

**CESAREAN SCAR PREGNANCY: A CASE REPORT**

A. Aleyasin, S. Eskandarian, Tehran university of medical sciences, Tehran, Iran; Shariati hospital, Tehran, Iran

**Objectives:** In cesarean scar pregnancy (CSP), The pregnancy implant in previous cesarean scar myometrium. The incidence of caesarean scar pregnancy is about 1 in 2000 pregnancies and accounts for 6 percent of ectopic pregnancy in women with history of cesarean delivery.
Vaginal bleeding and abdominal pain are major clinical presentation. Delay in diagnosis or treatment cause uterine rupture and hypovolemic shock.

Sonographic findings in CSP patients include trophoblast among anterior uterine wall and bladder, fetal part out of uterine cavity, interruption of the anterior uterine wall and high velocity with low impedance vascular flow around the sac.

**Method:** A 31 year old patient (gravid2, para1, L1) presented to emergency department of Shariaty hospital with chief complaint of vaginal bleeding and abdominal pain, from the first day of last menstrual period she was at the 9th week of gestation. She had the history of one cesarean delivery. In physical examination there was mild abdominal tenderness in hypogastric area. The patient admitted to emergency room and β-hCG and hemoglobin were measured. Transvaginal sonography was performed.

**Results:** Before surgery, the patient’s serum β-hCG and hemoglobin were 77558mIU/ml and 11.1gr/dl, respectively. The transvaginal sonography showed a gestational sac containing an embryonic pole with heart motion in left side of uterus. In exploratory laparotomy, the fallopian tubes appear normal. the lower segment of uterine was ballooning, with suspicion of CSP the uterus was incised. After hystrotyom a 9 week of gestation fetus was appeared and the lower uterine implantation, in previous cesarean scar was confirmed. The hemoglobin level in the post operation day was 10.3gr/delciter. The patient was discharged second day postoperative.

**Conclusions:** The best management of patient with CSP is not confirmed, the dominances of surgical method include shorter hospitalization and lower risk of uterine rupture during treatment. Conservative management such as uterine artery embolization, local or systemic methotrexate therapy should be performed under close observation because of higher risk of uterine rupture. In Jurkovic et al study in 18 CSP patients Success with methotrexate was five of seven patients (71%), with the two failures requiring emergent surgery. Expectant management was successful in only one of three cases, and was not recommended. There are reports of successful term pregnancy after CSP.

**P0816**

**PREOPERATIVE PREDICTION OF INTRA-ABDOMINAL ADHESIONS BY SKIN SCAR CHARACTER IN PATIENTS WITH TWO PREVIOUS CESAREAN DELIVERIES**

M. Eskandar, A. Abusham. King Khalid University, Abha, Saudi Arabia

**Objectives:** To identify the skin scar characteristics, that most commonly related to intra-abdominal adhesions in a women with two previous cesarean deliveries.

**Method:** This is a prospective descriptive cross sectional hospital base study. 138 pregnant women underwent an elective third caesarean delivery. The previous skin scar inspected preoperatively and categorized as flat or non-flat scar (which included elevated and depressed scars).

Intra-operatively the detected adhesions categorized as no adhesions, Filmy adhesions and dense adhesions.

**Results:** Out of 138 women included in this study 67 (48.6%) had flat scar and 71 (51.4%) had non-flat scar (elevated or depressed). 70.4% of non-flat scars had dense adhesions, (29.6%) of flat scars had dense adhesions (OR=5.22; 95% CI: 2.53–10.77, p=0.001). The study revealed that depressed scar significantly associated with dense adhesions compared to flat scar (53.3 vs. 46.7%) (OR=17.52; 95% CI: 4.75–64.72, p=0.000), followed by elevated scar (55.3 vs. 44.7%) (OR=3.16; 95% CI: 1.43–6.99, P=0.004). The least scar character associated with dense adhesion was flat scars.

**Conclusions:** Non-flat scar (depressed and elevated) are found to be significantly associated with dense intra-abdominal adhesions.

**P0817**

**PERSPECTIVES OF CAESAREAN SECTION PREVALENCE IN THE 21ST CENTURY: A CONTINUATION OF EPIDEMIC OR GRADUAL REDUCTION**

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**Objectives:** Since the Caesarean Section experienced a great expansion in the new millennium, assuming almost epidemic proportions, obstetricians have been facing the question if such an epidemic is justified, if it can be stopped or if it is a method of delivery that could reach an equal share percentage to vaginal delivery or in some communities it could even surpass it.

**Method:** Analyse the objectivity of an increase in the number of Caesarean Section causes of its continual growth, and estimate whether the percentage of caesarean sections in the 21st century, regardless of the constant desire to reduce it, will still have a progressive growth tendency.

**Results:** In the majority of countries where the Caesarean Section (CS) is a routine operation today, there has been an increase in the deliveries ended using this surgical method. The more an more demanding parents, in pursuit of a “perfect child” influence the obstetricians in such a way that they, out of fear from potential lawsuits, more easily opt for deliveries using CS. A great number of old primal paras, increasingly easier decisions in favour of the CS after a previous CS, new generation of young obstetricians, with little experiences, in addition to an un doubted increase of the number of CS on demand, are only few of the reasons for the continuation of CS epidemic.

**Conclusions:** We believe that the Caesarean section rate will increase in 21st century, especially in situations of breach presentation, as well as twin pregnancy, which should completely disappear in the future from vaginal delivery methods. An increasing number of expanded indications for a Caesarean Sections, with representation of the vaginal delivery as a risky method to deliver a child by both the patients themselves and some doctors as well, could lead to that the new millennium brings more indications for Caesarean Section then vaginal delivery. However, the prevalence of the Caesarean Section shall maintain its diversity from one country to another, and even between continents.

**P0818**

**SECOND-TRIMESTER TERMINATIONS OF PREGNANCY IN CASES WITH PLACENTA INCRETA/PERCRETA: DOES FETICIDE OR UTERINE ARTERIAL EMBOLIZATION DECREASE POSTDELIVERY MATERNAL HEMORRHAGE/SEVERE PERIOPERATIVE OUTCOMES?**

Y. Zhao, Y. Wang, Q. Sheng, Y. Chen. Obstetric and Gynecology Department of Peking University Third Hospital, Beijing, China

**Objectives:** To estimate the effects of performing feticide and uterine arterial embolization on decreasing postpartum hemorrhage, before second-trimester terminations of pregnancy in cases complicated with placenta increta/percreta.

**Method:** A retrospective study was performed to obtain the histories of patients with diagnosis of placenta increta/percreta from 2003 to 2014 in obstetric and gynecology department of Peking university third hospital. 13 cases of second-trimester and another 55 cases of third-trimester termination of pregnancy complicated with placenta increta/percreta was identified. We compared the estimated blood loss and severe outcome between cases with or without pre-delivery intervention (feticide or uterine arterial embolization) in the second-trimester patients. And also analyze the clinical characteris-
Objective: To determine the risk factors and causes of severe maternal outcome due to caesarean section related haemorrhage, and to evaluate the management.

Method: This is a cross-sectional prospective study in southern Gauteng province. These preliminary data were collected by the researcher using ongoing surveillance at public hospitals.

Results: Data were collected from July to December 2014, in 13 hospitals. A total of 100 women were included: 93 near-misses, and 7 maternal deaths. The near-miss ratio was 2.22/1000 live births from caesarean section related haemorrhage. The mortality index was 7%. Previous caesarean section was associated with caesarean section related haemorrhage. Forty-four women (47%) who were near-misses had a caesarean section in a previous pregnancy. Trauma and atonic uterus were the primary causes of bleeding. The most frequent near-miss markers included emergency hysterectomies (n=38; 40%), intensive care unit admissions (n=30; 32%), and artificial ventilation (n=39; 41%).

Conclusions: For each maternal death from caesarean section related haemorrhage, there are a large number of cases of near-miss. Valuable information has been gained towards potential prevention of maternal death from bleeding at and after caesarean section.

P0820
SEVERE MATERNAL OUTCOME FROM CAESAREAN SECTION RELATED HAEMORRHAGE IN SOUTH AFRICA
S. Maswime, F. Buchmann. University of the Witwatersrand, Gauteng, South Africa

Objective: To determine the risk factors and causes of severe maternal outcome due to caesarean section related haemorrhage, and to evaluate the management.

Method: This is a cross-sectional prospective study in southern Gauteng province. These preliminary data were collected by the researcher using ongoing surveillance at public hospitals.

Results: Data were collected from July to December 2014, in 13 hospitals. A total of 100 women were included: 93 near-misses, and 7 maternal deaths. The near-miss ratio was 2.22/1000 live births from caesarean section related haemorrhage. The mortality index was 7%. Previous caesarean section was associated with caesarean section related haemorrhage. Forty-four women (47%) who were near-misses had a caesarean section in a previous pregnancy. Trauma and atonic uterus were the primary causes of bleeding. The most frequent near-miss markers included emergency hysterectomies (n=38; 40%), intensive care unit admissions (n=30; 32%), and artificial ventilation (n=39; 41%).

Conclusions: For each maternal death from caesarean section related haemorrhage, there are a large number of cases of near-miss. Valuable information has been gained towards potential prevention of maternal death from bleeding at and after caesarean section.

P0821
SURGICAL REPAIR OF CLOACA-LIKE PERINEAL DEFECT AFTER VAGINAL DELIVERY
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Objective: Cloaca-like perineal defect generates a direct communication between rectum and vagina. Patients often refer fecal incontinence, sexual dysfunction and quality of life impairment.

Method: Patients with a cloaca-like perineal defect treated between June, 2013 and June, 2014. Age, BMI, parity, time from last birth and time to first visit were considered. Cleveland Clinic Florida Fecal Incontinence Score (CCF-IS), Fecal Incontinence Severity Index (FISI) and Fecal Incontinence Quality of Life Scale (FIQL) were used to evaluate the symptoms associated with fecal incontinence and its impact on quality of life. Anal manometry previous and after surgical repair was performed. All patients were treated with surgical repair using a V flap reconstructive technique.

Results: Three patients were enrolled in this study. Median age was 34 years. Median BMI was 32. Each patient referred three vaginal deliveries. Median time between last childbirth and first visit was 2.5 years. CCF-IS improved from 17 before surgery to 4 after repair. FISI improved from 54 before correction to 13 after reconstruction. FIQL showed an increase in all categories after the surgery (average preoperative 7, postoperative 13). High resolution anal manometry showed an increase of both resting and squeeze pressures. No major complications were reported.

Conclusions: Cloaca-like perineal defect repair results in clinical, manometrical and quality of life improvement. V flap reconstruction permits a tension free closure associated with a low morbidity rate.

P0822
WHAT FACTORS AFFECT THE MEAN DURATION OF A CESAREAN SECTION PROCEDURE?
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Objective: To determine the mean duration of performing a cesarean section and the associations with demographic, prenatal and intrapartum factors and, consequently, the potential impact on clinical outcome.

Method: Start time and stop time for cesarean procedures are routinely recorded in our health system. We obtained the obstetri-
Results: Valid duration times were calculated for 2757 cesarean procedures. Factors that significantly predicted shortest or longest quartile of duration included BMI, maternal age, previous cesarean section, insurance type, marital status, ethnicity, failed induction, 2nd stage of labor, and use of vacuum extractor. Duration of cesarean section was significantly predictive of umbilical blood gas results and blood loss ($p < 0.001$). Regression analysis showed that BMI and 2nd stage of labor were independent predictors of the longest quartile of cesarean section duration, and that duration was independently predictive of umbilical blood gas values and blood loss.

Conclusions: We have demonstrated factors that predict duration of cesarean section procedures and have shown that duration may potentially affect clinical outcome.

**P0823**
TRENDS AND INDICATIONS FOR CAESAREAN SECTION IN MISURATA
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Objectives: This study was conducted to determine the recent cesarean rate and to evaluate the related indications for cesarean section (CS).

Method: Between 2003 to 2014, there were 83163 deliveries at Misurata Teaching Hospital, of which 18693 CS were performed. A retrospective study was conducted and two periods for this study were taken; the first from Jan. 2003 to Dec. 2004 and the second from Jan. 2013 to Dec. 2014; to examine the changes in the rate and indications for CS. Comparison by indication and type of CS between the 2 periods was discussed. Demographic and clinical data (age, gestational age, parity, indications, perinatal outcome) were recorded which was collected from the Medical Records. Significance of differences was assessed using Z-score test.

Results: Out of 13359 deliveries during the first period, 1774 CS were performed (13.3%), while 4193 CS (33.6%) during the second period out of 12474 deliveries with a significant increase ($p=0.0001$). The success rate of vaginal delivery after prior CS was significantly decreased from 49.7% to 24.4%. Primary CS increased from 8.7% to 18.8% and 62.9% of CS were performed electively during second period compared to 38.7% during the first one. Comparison between the 2 periods showed a highly significant change ($p<0.0001$) in repeat CS rate (37.8% vs. 54.3%), as well as for dystocia and breech ($P=0.0001$); also fetal distress ($P=0.0002$).

Conclusions: The higher cesarean rate in our locality attributed to higher frequencies of repeated CS, and dystocia which was the main indication for primary CS and Maternal request appeared to be one of the indications. Implantations of policies, including active management of labor, trial of scar, maintenance of the skills required to supervise vaginal delivery for breech presentation, and precise interpretation of fetal monitoring may be useful in the diagnosis of fetal distress; these may achieve acceptable cesarean rate.

**P0824**
AN AUDIT OF OPERATIVE VAGINAL DELIVERIES IN A MEDIUM-SIZED OBSTETRIC UNIT IN THE UNITED KINGDOM
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Objectives: To determine our department’s compliance with the Operative Vaginal Delivery (OVD) departmental and the Royal College of Obstetricians and Gynaecologists (RCOG) guidelines.

Method: Data were collected retrospectively during September 2014. There were 41 OVDs within the department during that month and 40 notes were available for review.

Results: There were 41 OVDs during September 2014 in the unit. Majority of the women were nulliparous (n=33). Three-quarters of the women had forceps vaginal delivery (FVD) with the remaining having ventouse delivery. There was documentation of examination of vertex, cervical dilatation, caput, station and presentation in all cases. There were 6 Obstetric Anal Sphincter Injuries (OASI) - 3 in FVD. Although cord gases were obtained in all cases, they were clearly unpaired or were unprocessed by the machine in more than 20% of the cases. Only 18% of the women had documentation of debriefing after OVD.

Conclusions: 100% documentation of some aspects of the delivery process was made possible because they are mandatory to complete on the electronic system. Recommendations were made to improve OASI rate, processing of cord gases and debriefing of patients after OVD.

**P0825**
The Importance Of Art In The Education Of Birth
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Objectives: The declining art of delivery leads to injuries such as the obstetric fistula as well as rising intervention rates in labour known to be associated with physical and psychological morbidity. To show that birth wether it be vaginal, instrumental or Caesarean could be made safer if the art of birth is more appreciated and taught in an inter-professional environment.

Method: Since September 2012 32 art of operative vaginal delivery courses have been taught in the UK and Africa to doctors, midwives and clinical officers. Participants are introduced to art – a simple innovative evidence-based interface standing for:

- a = assess, address, arrange.
- r = recruit, right application, review.
- t = talk, tract, time.

As well as the mnemonic POSITIONN – which incorporates a structured approach to assessment and serves as a vector through which they not only perform an interdisciplinary assessment of mothers in a consistent transparent way during labour.

Results: 519 student midwives, qualified midwives, trainee doctors and consultants attended throughout the UK and Malawi. Pretests revealed poor understanding of anatomy and physiology in 85% and limited understanding of the technical aspects of the instruments. Following the course these aspects improved to over 95%. With 3 month evaluations revealing continued understanding of the process of birth and the importance of team work and communication. 24 persons who had never attempted instrumental delivery in their health facilities in Africa started to undertake the procedure. Reasons cited being confident in assessment findings and a clear understanding of indications.

Conclusions: art and POSITIONN are a unique framework and tools which embed shared decision making in every aspect of birth especially instrumental ones. Scaled up worldwide they can reduce maternal mortality and morbidity.
**P0826**

**THE FREQUENCY OF POLYCYSTIC OVARY SYNDROME IN TEENAGE CHILDREN WITH METABOLIC SYNDROME**

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**Objectives:** Polycystic Ovary Syndrome (POS) often begin to appear during teenage years and thought to be one of the leading causes of female subfertility. The aim of this study was to determine the frequency of POS in adolescence age children with metabolic syndrome.

**Method:** This study conducted on 98 patients with metabolic syndrome. Control group consisted of 40 adolescent without any metabolic changes. The diagnosis of POS was defined using the Rotterdam criteria which includes: oligoovulation, excess androgen activity, and polycystic ovaries by gynecologic ultrasound. The presence of metabolic syndrome was defined on the base of the existing one of the following components (low high-density lipoprotein cholesterol, high triglycerides, high glucose, high blood pressure, or high body mass index).

**Results:** The frequency of POS in teenage children with metabolic syndrome was significantly higher compared with control group (45.92% (n=45) vs 5% (n=2), p <0.001).

**Conclusions:** The adolescents with metabolic syndrome are at increased risk of POS, which require correction of metabolic endocrine disorders for improving the risk profiles of the future reproductive diseases.

**P0827**

**LEYDIG CELL TUMOR OF OVARY PRESENTING AS HIRSUTISM IN A 18 YEAR-OLD FEMALE**

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**Objectives:** Not all cases of hirsuitism are caused by PCOS.

**Method:** Clinical Examination, Hormonal investigations, Pelvic USG and CT Scan.

**Results:** Total Testosterone: 2.2 ng/ml.

CT Pelvis: Ovarian mass.

Histopath: Leydig cell Tumor of ovary.

**Conclusions:** Androgen producing tumors should be suspected in woman with virilizing clinical symptoms and high testosterone levels.

**P0828**

**MANAGING GYNECOLOGICAL PROBLEMS IN INDIAN ADOLESCENT GIRLS – A CHALLENGE OF THE 21st CENTURY!**

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**Objectives:** India’s mean age according to the census 2011 is 24 years. Half of India’s population is below 25 years and around 32% are in the 10 to 24 age group. Now a days a significant number of adolescent girls have started visiting health professionals. In view of this, we undertook a study to assess the clinical profile of adolescent girls in the age group of 10 to 19 years attending our Gynecology clinic at P. D. Hinduja Hospital. The objective was to evaluate various presentations and different modalities of management required in this age group.

**Method:** Adolescence can be divided into early and late adolescence. Early adolescence stretches between the ages of 10 to 14 years. Late adolescence includes the age group of 15 to 19 years. We analyzed 100 consecutive adolescent girls, who visited our Gynecology clinic from March 2014 to February 2015. They were evaluated prospec-

tively at every visit. Specific proforma was filled for each of the patient including personal details and complaints, menstrual history, family history etc. Examination findings, investigations, details of treatment were also recorded. The statistics thus obtained was analyzed and results were as follows.

**Results:** Out of 100 girls, 27 were in the age group of 10–14 yrs while 73 girls were between 15–19 yrs. Oligomenorrhea was the most common complaint as 50 girls presented with it. The second common complaint was of Menorrhagia as 28 girls had this complaint. Few complained of leucorrhoea, vulvar pruritus, mastalgia, breast lump, pregnancy, primary amenorrhea.

26 were anaemic, 2 had hypothyroidism, 10 had hyperprolactinemia, 9 had elevated fasting insulin & blood sugar levels, whereas 9 had hyperandrogenism. 32 girls had features of PCOS on sonography. Majority i.e 66 required hormonal treatment. 4 cases required major surgical intervention.

**Conclusions:** The most common complaint was that of oligomenorrhea followed by menorrhagia. Other complaints included leucorrhoea, mastalgia, pruritus vulvae, breast lump, pregnancy etc.

Over last few years, “Adolescent Gynecology” has emerged as a subspecialty in developing countries. Health Professionals dealing with adolescent age group should have empathy, friendliness and non-judgmental attitude towards their clients. Confidentiality of young people should be maintained. We need to give special attention to adolescent population as they will be the citizens and parents of tomorrow!

**P0829**

**LAPAROSCOPIC SURGERY FOR BENIGN OVARIAN DISEASE IN CHILDREN AND ADOLESCENTS**

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**Objectives:** This study investigated the safety and feasibility of laparoscopic surgery for the treatment of benign ovarian disease occurring in children and adolescents.

**Method:** A retrospective chart review was conducted on 106 patients (age younger than 20 years) who underwent laparoscopic surgery at Kangnam Sacred Heart Hospital, from 2006 through 2012.

**Results:** The mean age was 17.1 years, Pathologic revealed that 32 patients had dermoid, 30 had simple, and 15 had endometriomas. Conservative procedures, comprised more than half of all cases. Sub-analysis revealed that the surgical outcomes of children (age ≤15), including surgery time, estimated blood loss, postoperative hemoglobin drop, and postoperative length of hospital stay, were comparable to those of adolescents (age > 15) despite significant differences in mean heights between the two groups (156.1±10.71 cm in children vs. 162.1±15.41 cm in adolescents; P <0.0001). No intra- or peri-operative complications were noted.

**Conclusions:** Among children and adolescents, laparoscopic surgery can be successfully performed using conventional instruments designed for adults.

**P0830**

**WHAT DO ADOLESCENT STUDENTS THINK ABOUT THE CONTRACEPTION?**

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**Objectives:** To evaluate the perception and the contraceptive method option of public middle school students in health education program.

**Method:** Transversal study aimed at assessing the students’ perception of the effectiveness and accessibility of contraceptive meth-
ods through a self-applied questionnaire handed out to them during the sexual education and family planning program Vale Sonhar (It Is Worth Dreaming), developed by the Kaplan Institute for the first year curriculum of the state middle schools in São Paulo State. The students rated the effectiveness and accessibility of contraceptives on a 0–10 scale. The survey was conducted in 2010 by the Family Planning Outpatient Office.

Results: Of the barrier methods, the male condom was perceived as the most accessible and effective. Of the hormonal methods, birth control pills received the highest points for both effectiveness and accessibility. Of the natural methods, the calendar method was identified as the most accessible, but its effectiveness scored low points. The contraceptive group most approved for accessibility was the group of natural methods. The intrauterine device (IUD) group was perceived as the least accessible. The highest rated group for effectiveness was the definitive contraception group, while the group of natural methods was rated as the least effective.

Conclusions: The teenage students showed their preference for the male condom and the birth control pill, for they were easily accessible and fairly effective.

P0831
CHRONIC NONSPECIFIC VULVOVAGINITIS IN ADOLESCENTS ARE NOT ONLY GYNECOLOGICAL PROBLEM
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Objectives: Determine extragenital pathology in adolescent girls with chronic vulvovaginitis. Verify the microbe pathogens of gynecological pathology and their resistance to antibiotics. Evaluate the effectiveness of the therapy of chronic vulvovaginitis with probiotics in often ill teens.

Method: We have examined and treated 20 virgin adolescent girls with chronic vulvovaginitis. The average age of the patients was 15.8±1.1 years. The degree of sexual development by Tanner was appropriate to the age and was characterized by sufficient ovarian function. The average age of menarche was 13.3±0.4 years old. For all girls were updated history of life and disease, held a general and gynecological examination, vaginal smears and vaginal bacterial microflora identification and determination of their sensitivity to antibiotics. All data was compared with previous outcomes in the same group of patients.

Results: It was found that 20 adolescents had 36 different diseases linked to 14 nosologies, or 1.8±0.42 for each girl, with the problems of the gastrointestinal tract – 12 (60%), ENT – 10 (50%), respiratory system – 9 (45%), and so on. From 50% to 80% of identified microbial agents had resistance to a wide range of antibiotics while maintaining sensitivity only to backup antibiotics. Complex therapy with probiotics was successful for 95% of patients.

Conclusions: The special properties of oral probiotic had a positive impact not only on the vaginal microflora, but for the frequency of the recurrent extragenital inflammatory processes.

P0832
WHICH ARE THE CLINICAL FEATURES OF MYOMAS IN ADOLESCENTS?
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Objectives: To evaluate the main clinical features of the adolescents with myoma as well as the follow-up of these patients.

Method: We studied 16 patients who were diagnosed with myomas until their 20 years old. The length of study was from 2003 to 2013 at the Disciplina de Ginecologia do Departamento de Obstetrícia e Ginecologia do Hospital das Clínicas da Faculdade de Medicina da Universidade de São Paulo. Research was made by accessing medical archives.

Results: The mean age was 18 years old (9 to 20 years old). The mean time from menarche until onset of symptoms was approximately 6 years. All patients presented increased menstrual flow, 7 (43.75%) dysmenorrhea, 2 (12.5%) increased abdominal size, 4 (25%) symptomatic anemia, 1 (6.25%) polliakuria. 15 patients were treated with myomectomy, and 1 with embolization of uterine arteries. One patient presented recurrence and was submitted to myomectomy 3 times in 3 years, now she’s been asymptomatic for 2 years. 11 (68%) patients presented single nodules (median diameter of 9.8 cm). One patient was pregnant and submitted to cesarean section.

Conclusions: The main symptoms of adolescents with myoma is menorrhagia and dysmenorrhea. After the miomectomy, the recurrence is rare. Although myomas in adolescent appear clinically similar to the ones in adults, the myoma growth is really fast after menopause.

P0833
CHILDHOOD URETHRAL MUCOSAL PROLAPSE IN PORT HARCOURT, NIGERIA. AN 11-YEAR EXPERIENCE
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Objectives: To review our experiences of managing urethral mucosal prolapse in children over an eleven year period and the outcome of treatment options.

Method: This is a retrospective study of all prepubertal patients diagnosed and managed at the University of Port Harcourt Teaching Hospital from January 1st, 2003 to December 31st, 2013.

Results: 13 patients were reviewed with an age range of 3–13 years. Twelve patients (92.3%) presented with genital bleeding, 11 (84.6%) patients had genital swelling while 10 patients (76.9%) presented with both symptoms. Urine culture was done for 11 (84%) and only 4 of the urine culture grew bacteria. Only 2 of the patients had mild symptoms and were managed conservatively with sitz bath and application of oestrogen cream. Two out of the eleven patients who needed surgical treatment were not done due to financial constraints. All surgical repairs were successful. There were no postoperative complications or recurrence in this study.

Conclusions: This study shows that either medical or surgical treatment yields result. Medical practitioners who attend to children must be familiar with this condition to make prompt diagnosis to avoid possible sequelae attributed to delays in management.

P0834
THE ROLE OF THE INNATE IMMUNITY FACTORS IN THE PATHOGENESIS OF SECONDARY OLIGOMENORRHEA IN OVERWEIGHT ADOLESCENT GIRLS
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Objectives: Obesity is a chronic relapsing disease, causes the adipose tissue inflammation, leading to the development of metabolic disorders and affects the reproductive axis of women. A significant role in the development of metabolic syndrome is performed by the system of the innate immunity. New data confirming the role of violations of innate immunity in the pathogenesis of insulin resistance (IR) in adolescents with obesity. The objective of our research - the study of the role of some proinflammatory cytokines, TLR-2 and TLR-4 in the pathogenesis of ovarian dysfunction in adolescent girls with obesity and oligomenorrhea.

Method: The content of leptin, adiponectin, IL-1β, MCP-1, TNF-α in...
two groups of overweight adolescent girls were established by the ELISA. The group I included 43 patients with oligomenorrhea and IR, group II – 31 patients with regular menstrual cycle, without IR. The control – 25 healthy girls without obesity. The groups were comparable with respect to age, which at the mean amounted to 14 and had no intergroup differences. The determination of TLR-2 (CD14+CD282+) and TLR-4 expression on monocytes of the peripheral blood was performed by the method of two-color flow cytometry using diagnostic kits Caltag HyCultbiotechnol-
yogy.

Results: It was established that in two groups of patients the levels of leptin increase and adiponectin decrease as well as changes of immu-
nity factors in the form of increase of IL-1β, TNF-α, MCP-1 production as compared to the control group. The increase of MCP-1 levels main-
tains the process of adipose tissue inflammation.

It was defined that in the group I as compared with the control and group II there were apparent changes in the indices of the innate immunity in the form of statistically significant in-
tereference: TLR-2 (CD14+CD282+) and TLR-4 expression on monocytes

Conclusions: Consequently, in case of obesity products of adipocytes increase the secretion of proinflammatory cytokines, which can change the metabolic and secretory activity of adipocytes; it results in the further growth of the inflammatory reaction. The activation of the innate immunity receptors may result in the increase of the cy-
tokine formation and pimelitis that promote the development of the IR and ovarian dysfunction.

The revealed peculiarities of the immune response in adolescent will contribute to the prevention of possible reproductive complications; they can help to broaden the scheme of treatment to restore the re-
productive function in adolescent girls with obesity.

P0835
GIANT FIBROADENOMA: DIFFERENTIAL DIAGNOSIS ON
PHYLLODES TUMOR AND BREAST SARCOMA. CASE REPORT AND
LITERATURE REVIEW

A. Amora Coelho Araújo, J. Pierobon Gomes, L. Conz, M. Menegueli
Miranda, J. Faria Bessa, C. Alberto Ruiz, E. Gustavo Pires Arruda, J. Roberto Filassi, E. Baracat. São Paulo University, São Paulo, SP, Brazil

Objectives: Report an atypical case of a giant fibroadenoma in ado-
lescent and perform a literature review on differential diagnosis be-
tween phyllodes tumor and breast sarcoma.

Method: Review from reports of literature on giant fibroadenoma, phylloides tumor and breast sarcoma.

Results: Case report from 10 year old adolescent with a breast node measuring 30cm which got resection and symmetrisation. Histopathological exam evidenced a giant fibroadenoma without atypia.

Conclusions: Although lesions larger than 5 cm and with progressive growth can be malignant, the possibility of a benign node exists and the surgical treatment cannot be aggressive if the lesion is benign. Giant fibroadenoma can simulate a sarcoma, but it is a benign lesion of the breast.

P0836
VULVODYNIA IN PRE-MENARCHAL GIRLS

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Objectives: To review girls who presented to a pediatric and adoles-
cent gynecology clinic with a diagnosis of vulvodynia, whose pain
tended prior to menarche.

To characterize the presentation of vulvodynia in children and to de-
scribe associated symptomatology. We will also discuss our exami-
nation and diagnostic procedures.

Ultimately, our aim is to bring a greater awareness of this little
known condition to the general medical population, so that it may be
diagnosed and treated in a timely manner.

Method: This is a retrospective case series of 14 girls with vulvody-
nia whose pain began prior to menarche. They presented to the Royal
Children’s Hospital in Melbourne, Australia, between January 2010
and January 2015. Records of all office visits and any email or tele-
phone follow-ups were reviewed.

Results: We reviewed 14 patients who ranged from 7 to 15 years. Du-
ration of symptoms until diagnosis ranged from 1 to 11 years, with
many presenting to multiple providers. 10 of the 14 patients had as-
sociated urinary symptoms, 7 also experienced vulval pruritis. All had
specific sensitivity on q-tip examination, and all were treated with a
tri-cyclic antidepressants. 9 of 14 had a favourable response to TCA’s,
1 discontinued the medication due to side effects. We are currently
contacting the final 4 girls pending their trial of endep. These results
will be ready in time for the Figo Congress.

Conclusions: Vulvodynia occurs in the pediatric population, and its
presentation is similar to adults. As well as vulval pain, pruritis and
urinary symptoms are common. Multiple providers are often con-
sulted before a diagnosis is made, and this delay can be very distress-
 ing due to extended periods of untreated chronic pain. The diagnosis
can be made during one clinic visit with a thorough history and phys-
ical exam that often requires visual inspection and q-tip testing only.
Vulval swabs, biopsies and colposcopy are rarely needed. There was a
favourable response to TCA’s indicating that this is an effective treat-
ment in children.

P0837
ENDOMETRIOSIS IS AN IMPORTANT CAUSE OF PELVIC PAIN IN
ADOLESCENCE

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Objectives: Despite endometriosis being a common disease, where
early detection is the key to preventing its progression, it is a con-
dition often overlooked in adolescents. The aim of this study was
to report the clinical characteristics of adolescent patients with endo-
metriosis monitored in a tertiary hospital.

Method: Retrospective study of 394 patients undergoing surgery
with a histological diagnosis of endometriosis at the Endometriosis
Division of the Gynecology Department at the Hospital das Clinicas of
the University of São Paulo Medical School from 2008 to 2013. 21
adolescents were included (aged under 21 years).

Results: Ages ranged from 17.95±1.48 years, the average time for di-
agnostic confirmation was 2.96±2.93 years, and the age at the on-
sert of symptoms was 15.28±3.03 years on average. The sites affected
were ovarian (38%), peritoneal (47.6%) and retrocervical (23.8%). Dys-
menorrhea was found in 80.9% of adolescents (severe in 33.3% of
cases) and chronic pelvic pain in 66.6%.

Conclusions: Endometriosis in adolescents is an important differen-
tial diagnosis from pelvic pain and ovarian cysts, mainly among those
with no response to conventional treatment. The main forms of in-
volvement are peritoneal and ovarian. Despite the onset of symptoms
in adolescence and advances in imaging methods, the diagnosis of
this disease is still delayed.
Prenatal Diagnosis

P0838
POSTNATAL OUTCOME OF ISOLATED ANTE-NATAL HYDRONEPHROSIS
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Objectives: To assess the postnatal outcome of fetuses with renal pelvis dilatation (RPD).

Method: A retrospective study was conducted to review 61 fetuses found to have RPD by ultrasound (US) carried out from January 2008 to January 2012. Five ended with intra uterine fetal death or early neonatal death, and were excluded.

Of the remaining 56 cases, 22 cases were lost to follow up, and we were not able to contact them so were excluded. The remaining 34 cases were followed-up in our hospital, and their outcomes were analyzed.

The outcome include: incidence of RPD diagnosed in our population, degree of hydronephrosis, postnatal diagnosis, and need for surgical intervention.

Results: Out of the 990 cases with sonographic abnormalities detected by antenatal US, the incidence of isolated RPD was 6.1%. Out of 34 cases, 15 patients had severe RPD (44% of cases), 41% of cases (14 patients) had moderate RPD, and 15% of cases (5 patients) had mild RPD, only 7 patients (21%) required surgery after delivery.

Conclusions: The routine use of antenatal ultrasonography will lead to early diagnosis of urologic conditions that have postnatal consequences.

P0839
CORRELATION BETWEEN INTER-TWIN BIRTH WEIGHT DISCORDANCE AND PLACENTAL SUPERFICIAL VASCULAR ANASTOMOSES IN SELECTIVE INTRAUTERINE GROWTH RESTRICTION
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Objectives: To evaluate the relationship between the inter-twin birth weight discordance with selective intrauterine growth restriction (sIUGR) and the number and overall diameter of placental superficial vascular anastomoses.

Method: From June 2013 to December 2014, 42 cases of monochorionic twins placentas with sIUGR were analyzed in Peking University Third Hospital. After recording the number and diameter of placental superficial vascular anastomoses and the birth weight, the correlation analyses were conducted. Based on 40% inter-twin birth weight discordance, fetuses with sIUGR were classified into two groups: ≤40% and >40%.

Results: (1) In these 42 cases, the inter-twin birth weight discordance was negatively correlated with the overall diameter of vascular anastomoses (Spearman correlation coefficient, r = -0.386, p=0.015). (2) In birth weight discordance >40% group, the overall diameter of arterio-arterial (AA) anastomoses [3.0 (0.0, 7.0) mm vs 1.6 (0.0, 4.2) mm, p=0.041], arteriovenous (AV) anastomoses [3.6 (0.0, 13.7) mm vs 1.6 (0.0, 11.4) mm, p=0.025], or vascular anastomoses [7.1 (0.0, 22.0) mm vs 4.2 (0.0, 14.0) mm, p=0.028] were all significantly shorter than the other group.

Conclusions: In the pregnancies with sIUGR, with the increasing of inter-twin birth weight discordance, the placental superficial vascular anastomoses may decrease. As for those sIUGR pregnancies with inter-twin birth weight discordance >40%, we predict that owing to the significantly decrease of placental superficial vascular anastomoses, if intrauterine fetal death happens to the smaller fetus, the blood transfusion from the alive heavier one to the death one may correspondingly decrease.

P0840
A FLOOD OF FETAL GENETIC TESTING
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Objectives: This study is to compare CMA versus conventional fetal genetic testing in collaboration with AGILE lab, New Delhi and RAINBOW hospitals, Agra.

Method: • The study started in dec 2013 and 50 cases have been studied in this study. • This study is still ongoing. • Long term follow-up of babies born will be kept for five years. • Advances in invasive prenatal diagnosis: Chromosomal microarray (array-CGH, molecular karyotyping) will replace conventional karyotyping.

Results: Arrays have demonstrated the ability to detect submicroscopic copy number variations, providing an approximately 2.1% increase in the detection rate of pathogenic copy number variations regardless of the referral indication, and rising to an approximately 5.3% increase above conventional karyotyping in the presence of sonographic anomalies.

Conclusions: • Prenatal CMA can detect clinically significant genomic aberrations in fetuses with U/S abnormality. • Provide accurate diagnosis and prognosis both prenatally and postnatally to parents. • Because an invasive procedure is required, associated with a procedure-related risk, it seems likely that high-resolution chromosomal microarrays will mainly be offered for the analysis to those fetuses at significant increased risk of a chromosome abnormality.

P0841
FIRST TRIMESTER SERUM BIOCHEMICAL MARKERS FOR DOWN SYNDROME SCREENING IN SOUTHERN THAI WOMEN
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Objectives: To establish gestational-age- and maternal-weight-adjusted median levels of first trimester serum PAPP-A and free β-hCG in ethnic southern Thai women, and to compare these reference levels with the Caucasian specific model.

Method: This was a prospective cohort study at a university hospital in Southern Thailand. Serum PAPP-A and free β-hCG concentrations were determined for normal singleton pregnant women. Logarithmically transformed PAPP-A and free β-hCG values were regressed against mean-centred gestational age and maternal weight using quantile regression models to obtain predicted median values. The relationships of predicted median PAPP-A and free β-hCG values were compared with the published equations for Caucasian. The multiple of median (MoM) values of both serum markers were calculated, and the relationships between the two estimates from southern Thai women and the Caucasian models were evaluated.

Results: A total of 1,160 pregnancies with normal fetal outcome were included in the analysis. Logarithmically transformed median PAPP-A increased and median free β-hCG decreased linearly with increasing gestational age. Both decreased linearly with increasing maternal weight. The best-fitting exponential equations for the expected median levels of free β-hCG (mg/mL) and PAPP-A (mIU/L) according to maternal weight (Wt in kg) and gestational age (GA in days) were established. Compared with the Caucasian population, the median values of PAPP-A were higher and the median values of free β-hCG were lower in southern Thai women.

Conclusions: Maternal-weight and gestational-age-adjusted median
normative models that allow the conversion of free $\beta$-hCG and PAPP-A to their MoM equivalents in ethnic southern Thai women have been generated. These models should have greater sensitivity for our population than the Caucasian-specific model.

**P0842**

JOIN HANDS TO ERADICATE RUBELLA

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**Objectives:** The objective of the present study is to estimate the susceptibility to rubella infection in Indian women of reproductive age group.

**Method:** 100 women of reproductive age group attending pre pregnancy counseling clinic or gynaecological opd were selected for the present study. Rubella specific IgG serologic testing was done in these women.

**Results:** Out of 100 studied women, 68 were IgG positive and 32 were IgG negative.

In India, it would be a herculean task for the government officials to reach such an enormous population. We’ve given more than 1500 Rubella vaccines to the adolescent unimmunised girls with the help of Rotary International.

**Conclusions:** Inspite of compulsory immunization programme followed, India have high incidence of unimmunized rubella women so they remain susceptible to the rubella infection. This study indicates that in countries like India, an intervention plan is mandatory so that each and every unimmunized woman can be reached and the complications due to Rubella infection can be reduced as was done in US. In India, it would be a herculean task for the government officials to reach such an enormous population. Hence, involving FOGSI and NGOs like Rotary International (example: Polio eradication) would be helpful in a big big way!!

**P0843**

INSULIN-LIKE GROWTH FACTORS AND CERVICAL LENGTH TO PREDICT PRETERM DELIVERY IN EARLY MID-TRIMESTER

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**Objectives:** To evaluate the performance of serum concentration of biomarkers including IGFBP, IGF1, IGFBP3, and cervical length in first to early second trimester to predict preterm delivery.

**Method:** We performed a single-center, prospective cohort study from August 2011 to November 2012 of asymptomatic pregnant women. From pregnant women attending their antenatal examination at 11–14 weeks, we collected serum samples and stored them at −80°C. All patients also underwent cervical length examination at 19–21 weeks. We retrieved for analysis frozen samples from women who then developed preterm delivery, as well as control samples per women. A receiver-operating characteristics (ROC) curve was used to determine the most useful cut off point. Prediction models were developed using multivariate stepwise logistic regression.

**Results:** Of the 100 women recruited, 45 (45%) developed spontaneous preterm delivery. Controls (n=55) were randomly selected from women without preterm delivery and included women who developed other pregnancy complications. Maternal serum concentration of IGFBP, IGF1, IGFBP3 were significantly associated with preterm birth. Inclusion of IGFBP improved the predictive ability of cervical length alone.

**Conclusions:** Addition of IGFBP at 11–14 weeks of gestation to cervical length assessment improved the identification of women at increased risk of developing preterm, but the performance is not sufficient to warrant introduction as a clinical screening test. Additional markers are needed to achieve clinical utility.

**P0844**

VOLVULUS IN UTERO, A CASE REPORT

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**Objectives:** To discuss the antenatal diagnosis, possible etiology and treatment of a neonate diagnosed in utero with volvulus.

**Method:** This is a case report of a 28 year old primigravid on her 30–31 weeks age of gestation diagnosed with fetal volvulus in utero on ultrasound.

**Results:** The patient was admitted because of hydramnios, dilated bowels with “whirlpool sign” on the left of fetal abdomen. Assessment was fetal intestinal obstruction probably secondary to volvulus versus jejunoileal atresia. Preterm delivery was beneficial since further prolonging the pregnancy would compromise the bowels even more. Antenatal corticosteroids and amnioreduction was done. Approximately 1500 ml of greenish fluid was drained with elevated bilirubin levels confirming the obstruction is at the jejunum. She delivered vaginally to a preterm boy with distended abdomen, a patent anus and no meconium. The jejunum was twisted thrice and 14 cm was necrotic and resected.

**Conclusions:** The underlying cause of volvulus is unclear however in our case, a possible muscle defect as shown in the histopathology could be the etiology. Early diagnosis of fetal volvulus done antenatally on ultrasound with findings of hydramnios, dilated bowels without peristalsis and presence of “whirlpool or snail sign” resulted in a shorter segment of intestine that was resected. Long term morbidity and mortality is not only influenced by the volvulus and its surgery but by the fetal maturity.

**P0845**

REGULAR VAGINAL PH SCREENING IN THE DIAGNOSIS OF BACTERIAL VAGINOSIS IN PREGNANCY AND ITS IMPACT ON THE INCIDENCE OF PRETERM DELIVERIES

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**Objectives:** To determine whether regular vaginal pH screening resulted in more frequent diagnoses and treatment of bacterial vaginosis, thus fewer preterm deliveries and to determine the effectiveness of using vaginal pH levels to diagnose bacterial vaginosis and candidiasis in asymptomatic pregnant women.

**Method:** This is a randomized controlled trial involving 222 asymptomatic pregnant women less than 34 weeks randomized to regular vaginal pH screening and wet smear and no vaginal pH screening. The outcomes tested were threatened abortion, threatened preterm labor and preterm delivery. Neonatal outcome were noted. Descriptive statistics were generated for all variables. Analysis of different variables were analyzed using T test, Mann Whitney U test and Fisher exact test.

**Results:** In our study the pH value of 4.5 or greater was used to diagnose bacterial vaginosis. The computed sensitivity and specificity was 88.5% and 98.7% respectively. The prevalence rate of bacterial vaginosis in this study 24%. Regular vaginal pH was able to diagnose more participants with bacterial vaginosis (pvalue <0.0001) and candidiasis (p value 0.01) in the experimental than the control group. Consequently antibiotics were given thereby decreasing the incidence of threatened preterm labor and preterm delivery (p Value <0.0001 and 0.004). For the neonatal outcome, there was no significant difference except birthweight, hour of rupture (pvalue 0.03 and 0.01).

**Conclusions:** Regular vaginal pH determination can be used as a screening method for bacterial vaginosis in asymptomatic pregnant patients with a sensitivity of 88.5% and specificity of 98.7% respectively. It resulted in a more frequent diagnoses and treatment of bacterial vaginosis and thus fewer preterm deliveries leading to reduced
hospital bills and, more importantly, decreased neonatal morbidity and mortality.

**P0846**
THE CURRENT STATUS OF CONVENTIONAL PRENATAL DIAGNOSIS IN JAPAN: A SURVEY OF OBSTETRICS/GYNECOLOGY FACILITIES

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**Objectives:** Prenatal testing has been provided in Japan over the past several decades. However, approval from academic societies is required for conducting preimplantation genetic testing and fetal cell-free DNA genetic testing in maternal plasma. Moreover, case registration for such tests is compulsory. In contrast, obstetricians can perform other conventional tests, such as amniocentesis (AC) and maternal serum marker tests (MSM), without certification and registration. As a result, it is difficult to assess the use of conventional prenatal diagnosis. This study aims to investigate the current status of AC and MSM in Japan.

**Method:** The subjects included 5,622 obstetrics/gynecology facilities in Japan. A questionnaire survey was selected and distributed among the obstetrics/gynecology departments at each facility between October 2013 and June 2014. Items included in the questionnaire were as follows: type of medical facility, basic information about the facility, status of prenatal diagnosis by AC and/or MSM, involvement of genetic professionals [clinical geneticists (CGs) and/or certified genetic counselors (CGCs)] employed, clinical setting of pretest information, examiner regarding the tests, contents of the explanation, the time required to provide the information (pre- and post-test), and the management of difficult issues.

**Results:** The response rate was 40.8% (2,295/5,622). Of the 2,295 facilities, 864 performed MSM (37.7%), 619 performed AC (27.0%), and 412 performed both (18.0%). With regard to the type of medical facility, the rate of performing both the tests was lowest in the group of medical clinics without beds (MSM: 130/603, AC: 25/603). MSM was performed most often in medical clinics with beds (367/814). Further, the rate of AC was higher in hospitals and perinatal centers (203/485 and 225/393, respectively). Although involvement of genetic professionals influenced the required time and information provided, fewer facilities employed these specialists (MSM: 96/864, AC: 128/619).

**Conclusions:** Although each prenatal test was allocated depending on medical level, the active involvement of CGs and CGCs would be beneficial to provide more appropriate genetic counseling.

**P0847**
ROLE OF MTHFR C677T, GSTM1, GSTT1 GENE POLYMORPHISM IN NEURAL TUBE DEFECT

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**Objectives:** To evaluate polymorphism of above mentioned Genes in Neural Tube Defect of various types.

**Method:** 50 pairs of mother and new born child with neural tube defect were included as cases and 50 pairs of women with normal newborn were controls. DNA extraction from maternal plasma and fetal blood done for genome studies of MTHFT C677T and glutathione S Transferase gene. Real Time PCR specific forward and reverse primer selected. Patients on anti-epileptic drugs, family history of NTD, obesity, diabetes.

**Results:** Folate intake in the cases were significantly less than in control. DNA characterization could be done in 29 cases and 43 controls. CT was found in 27.6% of cases and 16.3% controls. As in NTD babies, mother also showed increased incidence of GSTM1 gene mutation. GSTT1 was not detected in any of the cases while GSTT1 was detected in 6 females out of total 8 cases in whom this polymorphism was detected. Anencephaly cases showed maximum number of gene polymorphisms.

**Conclusions:** (i) Decreased folate level is an independent risk factor for development of NTD, (ii) GSTM1 was detected in 27.5% neural defect babies and 45.4% mothers with NTD babies, (iii) 66% of the cases were females, showing higher preponderance in them (p=0.003).
P0849
WHEN IS AMNIOTIC FLUID MAINLY CONSISTING OF FETAL URINE? CHANGE OF AMNIOTIC CAVITY IN THE FETUS WITHOUT NORMAL URINATION

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Objectives: The purpose of this study was to evaluate the time of development at which fetal urine consists primarily of amniotic fluid. In the first half of pregnancy, the majority of amniotic fluid is the result of water moving across the amniotic membrane and fetal skin. In the second half, the majority of amniotic fluid results from fetal micturition. Therefore, even the fetus without renal function has normal amniotic fluid volume in the first half of pregnancy. It is important to know at which time fetal urine consists mainly of amniotic fluid for the detection of renal anomalies in the fetus.

Method: Retrospective observational study. The amniotic cavity size was assessed by the fetal ultrasonography in the clinical records. A cavity less than 2x2 centimeters was considered to be of decreased amniotic fluid. Oligohydramnios was diagnosed when the cavity was not detected. Seventeen cases of congenital renal anomalies (eleven cases of urethral tract obstruction, two cases of renal agenesis, two cases of bilateral dysplastic kidney, one case of pouch colon, and one case of autosomal recessive polycystic kidney) were included in this study. None of the cases had premature rupture of membrane.

Results: Pregnancy was terminated in five cases of urethral tract obstruction before progression of oligohydramnios. A normal amniotic cavity was detected in these cases at 12, 14, 15, and 18 weeks of gestation, respectively. In seven cases, the amniotic cavity had decreased or disappeared during observation at 15, 16, 16, 16, 16, and 17 weeks of gestation, respectively. In five cases, the amniotic cavity was not detected at the first visit to our hospital at 13, 15, 16, 18, and 19 weeks of gestation, respectively.

Conclusions: In more than 50% of fetuses without normal micturition, the amniotic cavity had decreased or disappeared at approximately 16 weeks of gestation. The amniotic fluid consisted mainly of fetal urine instead of the fluid from the amniotic membrane and fetal skin at this time.

P0850
ATRIOVENTRICULAR SEPTAL DEFECT IN THE FETUS. ULTRASOUND DIAGNOSTIC, STRUCTURAL AND CHROMOSOMAL ASSOCIATIONS, CLINICAL SIGNIFICATION

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Objectives: To assess the ultrasound features (both in the first-FT and in the second trimester-ST of the pregnancy), the rates of invasive maneuvers, the chromosomal associations and the outcome of atrioventricular septal defect (AVSD) in the fetus in our tertiary center.

Method: This was a retrospective single center study of 21 of AVSD seen since 2004. The variables searched for analysis were: personal data of the mother, indications for fetal echography, ultrasound diagnostic features, the gestational age at suspicion/diagnostic, the invasive maneuvers performed, the conventional karyotype (KT) and array comparative genomic hybridization results, associated cardiac/extracardiac and chromosomal anomalies, and the fetal/neonatal outcome.

Results: 7 cases (46.6%) were isolated. Additional structural and chromosomal anomalies were present in 8 respectively 4 cases. 2 cases had increased nuchal translucency at the 12-week scan. One was found to have microdeletion 22q11. One case developed fetal growth restriction. One case had a cardiosplenic syndrome with right atrial isomerism. 6 cases showed an abnormal conventional KT (one trisomy 18 and 6 cases trisomy 21). No case was associated with persistent left superior vena cava. There were 9 terminations, an early fetal demise, one early neonatal death and 2 survivors, both presenting neurodevelopmental delay. Early diagnosed cases requested for termination.

Conclusions: We present our Unit of Prenatal Diagnostic experience in AVSD in the fetus. We confirm the frequent association with trisomy 21 (23% association rate in our case series). In the fetus, AVSD is associated with chromosomal/nonchromosomal syndromic conditions. Couples in Romania show an increasing desire for early diagnostic and for FT terminations in cases of major congenital heart defects, as AVSD. The overall termination rate was 80%. All terminations in this group prompted by the diagnosis of the actual anomaly, all couple decisions being made before the genetic results were available.

P0851
A CASE OF PLACENTAL CHORIOANGIOMA WITH CYSTIC CHANGES CAUSING MUCINOUS CHORIOAMNIOTIC SEPARATION

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Objectives: Placental chorioangioma is benign vascular tumor of the placenta arising from chorionic tissue. Most are small and asymptomatic, whereas the large tumor has unfavourable effects on both mother and fetus, such as polyhydramnios, fetal hydrops, preterm delivery, fetal growth restriction and fetal demise.

We report a case of a large placental chorioangioma with cystic changes and induced separation of the fetal membranes.

Method: A 29-year-old woman with polyhydramnios was referred to our department at 30 weeks of gestation. Ultrasonography was performed and there was a well-defined 4.84×6.33 cm sized mixed cystic and echogenic mass with high vascularity suggesting that chorioangioma at placenta. At 32 weeks of gestation, she complained sudden abdominal pain and extensive subchorionic hypchochogenic fluid collection between fetal membranes was revealed at ultrasound examination. We performed an emergency cesarean section because we could not rule out placental abruption. At operation, there was profuse mucinous fluid below the chorion with a solid placental tumor with yellowish cysts.

Results: Placental mass was confirmed placental chorioangioma with cystic changes at histologic examination. We report the first case of placental chorioangioma with cystic changes producing mucinous fluid below the chorion and developed the chorioangiomatic separation.

Conclusions: Cystic changes in placental chorioangioma can produce a large amount of mucinous materials below the chorion and induce separating the fetal membranes which mimicking subchorionic hemorrhage.

P0852
FETAL SCROTAL MASS CAUSED BY MECONIUM PERITONITIS: A RARE CASE OF MECONIUM PERIORCHITIS

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Objectives: Fetal scrotal mass and conditions that lead to scrotal swelling often reflect abnormalities of testicular, epididymal and scrotal development. The main causes of a prenatally detected scrotal mass are hydroleco, testicular torsion, teratoma and inguinoscrotal hernia.
Meconium periorchitis is a rare cause of benign scrotal mass and resulting from fetal meconium peritonitis with spillage of meconium into the scrotal sac via a patent processus vaginalis. The meconium in the scrotal sac can cause sterile inflammation and calcification of the peritesticular tissues. Here we report a case of fetal scrotal mass with meconium peritonitis suspected as meconium periorchitis prenatally.

Method: A 32-year-old woman at 30 weeks' gestation was referred for evaluation of sonographically suspected abnormality of the scrotum. The fetus was noted to have a hyperechogenic scrotal mass with microcalcifications. On subsequent sonography at 35 weeks’ gestation, intra-abdominal calcification with echogenic bowel, mild ascites were noted, suggesting meconium peritonitis. At delivery, neonate was showed to have abdominal distension and swollen scrotum. Postnatal ultrasound of the scrotum revealed normal testicles, numerous calcifications in the edematous scrotum. At emergent neonatal laparotomy, the neonate was found to have small bowel perforation and the scrotal mass was resolved after operation.

Results: Meconium peritonitis can present with a scrotal mass, although it is not common. We detected meconium peritonitis with meconium periorchitis prenatally with ultrasound. The fetus was noted to have a hyperechogenic scrotal mass in the scrotal sac can cause sterile inflammation and calcification of the peritesticular tissues. Here we report a case of fetal scrotal mass with meconium peritonitis suspected as meconium periorchitis prenatally.

Conclusions: When a scrotal mass is found on prenatal sonography, meconium periorchitis should also be considered when the scrotal mass is accompanied with meconium peritonitis.

P0853 PRENATAL DIAGNOSIS OF 45,XO/46,XY MOSAICISM IN A MALE INFANT WITH MIXED GONADAL DYSGENESIS: A CASE REPORT

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Objectives: The prenatal diagnosis of 45,XO/46,XY mosaicism poses a counselling dilemma to the obstetrician and geneticist. This mosaicism is rare, with an incidence of 1.5 per 10,000 consecutively born neonates. Phenotypic manifestations of the 45,XO/46,XY mosaicism varies widely ranging from normal males, undervirilised males, to females with Turner’s syndrome. Reviews of prenatally diagnosed 45,XO/46,XY mosaicism found that over 90% of cases were phenotypically normal males. In light of a 10% risk of abnormality, genetic counselling for prenatally diagnosed 45,XO/46,XY mosaicism cases can be problematic. The perinatal course for parents affected by this diagnosis can be very distressing.

Method: We present a case report on the prenatal diagnosis of 45,XO/46,XY mosaicism in a male infant with mixed gonadal dysgenesis, the investigations leading up to the diagnosis, and the challenges encountered in its management in the antenatal and postnatal course.

Results: Amniocentesis was performed in a 28-year-old woman with a high risk combined first trimester screen for Trisomy 21 and 13. Chromosomal analysis of the amniotic fluid detected fetal 45,XO/46,XY mosaicism and ultrasonic assessment for fetal gender identified ambiguous genitalia. On a genitogram, the male infant was found to have mixed gonadal dysgenesis and chromosomal analysis of the cord blood confirmed the prenatal diagnosis of 45,XO/46,XY mosaicism. The family counselled by paediatric surgeon and endocrinologist regarding the diagnosis and the possibility virilising the genitalia with testosterone and masculinising surgery as they had chosen a male sex rearing of their child.

Conclusions: 45,XO/46,XY mosaicism is a rare occurrence and its phenotypic manifestations vary widely. Although the predominant phenotype for this mosaicism is a normal male and amniocentesis is a very reliable diagnostic method, the prenatal diagnosis of this phenomenon still poses much uncertainty to parents and many challenges to the clinicians involved. Genetic counselling is crucial during the antenatal period due to the potential risk of an abnormal phenotype arising from the mosaicism. A holistic supportive multidisciplinary approach involving the obstetrician, geneticist, paediatric surgeon, endocrinologist, and psychologist is imperative in the management of such cases.

P0854 PRENATAL DIAGNOSIS OF AUTOANTIBODY-ASSOCIATED CONGENITAL HEART BLOCK – PERSISTENT FETAL BRADYCARDIA ON ASYMPTOMATIC MOTHERS IN LIMITED RESOURCES

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Objectives: Autoantibody associated congenital heart block is a rare condition in the pregnancy. The pathogenesis that has been revealed is the pregnancy with autoimmune disease without any abnormality of cardiac structure. The autoimmune marker anti-Ro/SSA and anti-La/SSB, the antibodies that related to congenital heart block, can be found. The examination of SSA/Ro and SSB/La might be unavailable in many countries. We have to exclude the other causes of congenital heart block or other antibodies that might be presence. The aim of this study is to establish prenatal diagnosis of autoantibody-associated congenital heart block on asymptomatic mother in limited resources.

Method: Case series.

Results: Reported 2 cases of persistent fetal bradycardia on congenital heart block that established by M-mode fetal echocardiography. The patients had no history or symptoms of any particular autoimmune disease, such as SLE. But after we established the cause of congenital heart block by antibodies marker examination, the antinuclear-antibodies, anticardiolipin-antibodies, and ds-DNA were positive.

All the baby was delivered by C-section with perinatology preparation. One of the baby got pace maker placement due to bradycardia after delivery. Another baby didn’t get pace maker placement due to family refusal.

Conclusions: Clinical sign of congenital heart block is persistent fetal bradycardia without any sign of uteroplacental insufficiency. Autoantibody-associated congenital heart block could be presence on asymptomatic mothers and there was no abnormality of fetal cardiac structure. Further investigations might be required to establish the risk factor earlier. Good prenatal diagnosis made better management.

P0855 SONOGRAPHIC FINDINGS IN CASES OF TRISOMY 18

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Objectives: Describe sonographic findings in cases of Trisomy 18 (T18) during the prenatal period, comparing the found data in our sample with those of the literature.

Method: Prenatal sonographic findings were reviewed in 79 consecutive fetuses with trisomy 18 at the Fetal Medicine Institute Fernandes Figueira - Fiocruz from 1997 to 2012. We described the most frequent malformations and other sonographic findings of relevance, as well as the method used for genetic diagnosis.

Results: In our study karyotypes were obtained by chorionic villus sampling in 2.5% of cases, amniocentesis in 20.2%, cordocentesis in 40.5% and postnatal sample in 34.1% of cases. Abnormalities of the extremities were most common (34.1%), and abnormalities of the positioning of the feet identified in 24%, followed by changes face (17.7%) and choroid plexus cyst (15.1%). Single umbilical artery and umbilical cord cysts were detected in 14.8% and 11.3% of cases, respectively. IUGR was diagnosed in 37.9% of patients. 72% presented major malformations. None of the patients accompanied by us the cesarean section was indicated for fetal motivations.

Conclusions: The sonographic findings in this study are similar to
those described in the literature. The description of these findings may help in counseling when there is detection of malformations of the second trimester. Identify a pattern of malformations compatible with trisomy 18 may even prevent unjustified procedures, such as a caesarean section, these women and their children in low resource countries.

**P0856**

**PROGNOSTIC FACTORS TO PREDICT ABORTION IN KOREAN WOMEN IN CASES OF THREATENED ABORTION AFTER IDENTIFICATION OF EMBRYONIC/FETAL HEARTBEAT: A PROSPECTIVE OBSERVATIONAL STUDY**

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**Objectives:** We investigated the risk factors to predict abortion in Korean pregnant women with threatened abortion after identification of an embryonic/fetal heartbeat.

**Method:** In 618 singleton pregnancies with threatened abortion between 6 and 10 weeks, we studied women with ultrasound-proved fetal heartbeat. We compared maternal characteristics and medical records between women who had an abortion at less than 14 weeks (abortion group) and those with live gestation at 14 weeks (control group). We analyzed any associations with pregnancies ending in miscarriage at less than 14 weeks in cases of threatened abortion with an identified heartbeat.

**Results:** Of the 333 women with threatened abortion with a heart beat, 32 (9.6%) had abortions that occurred at less than 14 weeks. Compared to the control group, the abortion group had significantly slower fetal heart rate, and earlier gestational age at the time of diagnosis of threatened abortion. In multivariate analyses, a fetal heart rate (OR, 0.979; CI, 0.961–0.998; p=0.036) independently contributed to miscarriage at less than 14 weeks. According to the Youden index, a heart rate of less than 115 bpm was the optimal cutoff value and corresponded with an increased risk of subsequent miscarriage (OR 3.463; 95% CI, 1.350–8.880; P=0.010).

**Conclusions:** In Korean women with threatened abortion after identification of the embryonic/fetal heartbeat between 6 and 10 weeks, a fetal heart rate of less than 115 bpm may increase the risk of subsequent abortion at less than 14 weeks.

**P0857**

**ISOLATED BORDERLINE/MILD FETAL VENTRICULOMEGALY DIAGNOSED AT 18-22 WK GESTATIONAL AGE – ANTENATAL PROGRESSION, ASSOCIATED INFECTIONS AND ANEUPLOIDY**

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**Objectives:** Isolated borderline/mild fetal ventriculomegaly is an incompletely understood condition. Current literature show that these patients largely regress and show a minor association with antenatal infections and aneuploidy. This is a study looking at antenatally diagnosed isolated borderline/mild fetal ventriculomegaly between 18 to 22 weeks of gestation, the associated infections and aneuploidy as well as its antenatal progression at a single centre in Singapore.

**Method:** This is a retrospective single centre cohort study, conducted in KK Women’s and Childrens’ Hospital, Singapore. Cases of isolated borderline/mild fetal ventriculomegaly (classified as ventricle width measuring 10–12mm) diagnosed antenatally between 18 to 22 weeks of gestation between January 2010 to December 2012 were collected retrospectively. Case notes were then reviewed and the antenatal progression of each case, associated infections as well as aneuploidy was recorded. Results were subsequently analyzed and the findings reported.

**Results:** A total of 58 patients were found to have isolated borderline/mild fetal ventriculomegaly using the cut-off as 10–12mm with a mean maternal age of 30 years old. Only 47 continued their follow up at our centre and delivered at a mean gestational age of 37 weeks. Abnormal karyotype was discovered in 7% of patients with available results. There were more male then female fetuses reported with isolated borderline/mild fetal ventriculomegaly. An associated infection rate of 2% was discovered in our study. Majority of our patients showed a regression at follow up scan.

**Conclusions:** Isolated borderline or mild fetal ventriculomegaly is an antenatal diagnoses that is incompletely understood. According to our study, majority of these cases regress and there is only a minor association with antenatal infection and aneuploidy. These findings are corresponding to the current available literature.

**P0858**

**NEONATAL CONSEQUENCES DUE TO CHANGES IN LIPID PROFILE IN END OF PREGNANCY PATIENTS AT GENERAL HOSPITAL OF CARAPICUIBA**

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**Objectives:** Raise the prevalence of hypercholesterolemia in pregnant women treated at Carapicuiba General Hospital and correlate with neonatal parameters such as Apgar score, weight and length.

**Method:** A comparative study of 113 pregnant women at term, who performed childbirth at the General Hospital of Carapicuiba. It was conducted the analysis of total cholesterol (TC) through the maternal blood collection at hospitalization act and this data was correlated with Apgar score, weight and length of newborns. The patients were divided into two groups, hypercholesterolemic (CT ≥250) and normcholesterolemic (CT <250). Data were analyzed statistically and performed Mann-Whitney test, since it did not assume normality.

**Results:** Within 113 pregnant women, 50 (44.2%) presented hypercholesterolemic and 63 (55.8%) normcholesterolemic. Among hypercholesterolemic the average CT was 284.42, 90% and 98% had not asphyxia in Apgar results score of first and fifth minute, respectively. Weight results showed that 96% was appropriate for gestational age and 100% were between p10 and p90, that is within the appropriate range for growth gestational age. There were no significant differences between the two groups regarding the weight of the newborns (NB) (p=0.069); NB length (p=0.707), NB first minute Apgar (p=0.816) and NB fifth minute Apgar (p=0.768).

**Conclusions:** Neonatal repercussion in hypercholesterolemic mothers attended at this service was not statistically significant. Thus arises the need for increased sample with estatistic relevance, because of the lack of comparative data in the literature and it’s importance considering the global trend for hypercholesterolemia due to poor eating habits and current lifestyle.

**P0859**

**IS THE INFLAMMATORY RESPONSE RELATED WITH THE PREECLAMPSIA PHYSIOPATHOLOGY GREATER THAN IN LABOR? COMPARISON OF THREE INFLAMMATORY BIOMARKERS IN A GROUP OF MEXICAN PREGNANT WOMEN AT INSTITUTO NACIONAL DE PERINATOLGIA (INPER)**

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**Objectives:** Preeclampsia (PE) is a multisystemic syndrome which etiology is unknown. About its physiopathology outstands the discovery of immunology, genetics and environmental facts related with
the bad placenta implantation. Actually there are not biomedical markers for its early detection. The heat shock proteins (Hsp) have been detected in pregnancy as long as labor, hypertensive disease and systemic illness. In PE the Hsp have been associated with the increases of the immunology response. The mean objective of this study is to compare the levels of Hsp-60 and two inflammatory cytokines in the preeclampsia developing, labor and healthy pregnant women.

**Method:** This case -control study was performed at INPer and it was approved by the Ethics and Research Committees. Preeclampsia was defined according to the ACOG criteria. Maternal blood was obtained from 3 groups: women with preeclampsia (n=60), women who developed labor (n=50) and women with healthy pregnancy and without labor (n=28). The blood was centrifuged to obtain the plasma for the total proteins quantification by Bradford method; to quantify Hsp-60, IL-1β and TNF-α ELISA method was used. The results are presented as mean ± deviation and statistical analysis was performed using the Mann-Whitney test with a significant difference of p <0.05.

**Results:** The IL-1β, TNF-α and Hsp-60 secretion in PE group increased in 42.2 (p=0.003), 2.7 (p=0.05) and 2.5 (p=0.002) times respectively over the group without labor. The group PE also showed higher secretion of IL-1β and TNF-α in 1.3 (p=0.099), 5.4 (p=0.05) and 1.3 (p=0.071) times than the group with active labor, and a lower secretion in 1.3 times (p=0.65) of Hsp-60.

**Conclusions:** The findings in this study showed that the Hsp-60 and the inflammatory cytokynes IL-1β and TNF-α have higher secretion in women with PE diagnosis than in women with normal pregnancy, and these biomarkers showed a similar pattern in physiological inflammatory scenes like active labor.

### Preventive Oncology

**P0860**

**TEACHERS’ ATTITUDE SUPPORTS POSSIBLE ROLE IN PROMOTING THE UPTAKE OF THE HUMAN PAPILLOMA VIRUS VACCINE AMONG ADOLESCENT GIRLS IN ABAKALIKI, SOUTH EAST NIGERIA**

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**Objectives:** Majority of the target population for Human Papilloma Virus (hpv) vaccination for the primary prevention of cervical cancer in Nigeria are found in secondary schools. This study was aimed at describing the knowledge and attitude of secondary school teachers towards HPV vaccination, and determine if the attitude of these teachers supports a possible role for teachers in promoting the uptake of the vaccine.

**Method:** A cross-sectional-questionnaire-based study involving secondary school teachers in Abakaliki was carried out. Data analysis involved both descriptive and inferential statistics at 95% confidence level using the SPSS software version 16. P-value ≤0.05 was considered statistically significant.

**Results:** A total of 412 teachers participated in the study. Approximately 78% were aware of cervical cancer and 75% of these were aware of at least one method of cervical cancer prevention. Eighty-six percent of those aware of cervical cancer knew that HPV infection was the cause of cervical cancer; although only 40.3% of these knew that HPV vaccine that protected against cervical cancer was available in the city. Approximately 70% of teachers who were aware of cervical cancer were willing to recommend HPV vaccination to children under their care.

**Conclusions:** Majority of secondary school teachers in Abakaliki were aware of the HPV vaccine for preventing cervical cancer and over two-thirds of these were favourably disposed to recommending its use. Public health practitioners could therefore enlist teachers in programmes for influencing adolescent girls and their parents towards increased uptake of the vaccine in our environment.

**P0861**

**ANALYSIS OF ABNORMAL PAP TEST RESULTS IN NORTHERN NAMIBIA OBTAINED DURING A MEDI-PARK ORGANISED CAMPAIGN TO PROMOTE CERVICAL CANCER AWARENESS IN THE GENERAL PUBLIC**

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**Objectives:** The objective was to raise cervical cancer awareness in the rural Namibian living in the northern part of the country where quality health care is inaccessible to the rural community who live in abject poverty.

**Method:** Relevant demographic and other related information regarding risk factors for cervical cancer was obtained with a well structured questionnaire using a local as an interpreter to ensure that people understood the answers to the questions.

**Results:** During the campaign, 391 women, aged 19–75 years were were offered PAP test. Three hundred and thirty one women (87.0%) had no PAP test done in the previous 3 years. Ten (2.6%) of the PAP test were inadequate for evaluation (absence of endocervical component). Three and eighty (97.4%) were examined for cytological abnormalities using the conventional method. Two hundred and fifty three (66%) were abnormal. Human papilloma virus (HPV) infections co-existed in 128 (33%) women.abnormalities noted were: atypical squamous cell of undetermined significance (ASC-US), cervical intraepithelial neoplasia (CIN) I/II/III, HPV, Candida and bacterial vaginoses.

**Conclusions:** The vast majority of the population aged between (30–59) had CIN II/III and HPV positive (19.7%). This was closely followed by ASC-US and HPV positive (17.7%) in the group aged (18–29). ASC-US and HPV co-existed in people aged 60 years (6.4%) and above. The results clearly showed that age is a significant co-factor in the development of abnormal PAP Test. Cervical cancer has been recognised as an embarrassing public health problem in Namibia. The high prevalence of cervical cancer in Namibia, as in most resource limited countries is largely due to non availability of a robust screening programme, consequently late detection, presentation, poor access to treatment resulting in a high mortality rate.

**P0862**

**KNOWLEDGE AND ATTITUDE ON CERVICAL CANCER SCREENING BEFORE AND AFTER EDUCATIONAL TRAINING AMONG NURSING STAFF IN A TERTIARY CARE INSTITUTE**

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**Objectives:** To assess the knowledge and attitude on cervical cancer screening before and after educational training among nursing staff.

**Method:** A descriptive cross-sectional questionnaire based study was conducted among 50 nursing staff at All India Institute of medical sciences (AIIMS) Rishikesh. Nurses were given questionnaire (Validated by two experts) in order to determine their sociodemographic characteristics, level of knowledge and attitude on cervical cancer screening. After period of one week the nurses were given a thirty minutes training about cervical cancer risk factors, symptoms, methods of screening and prevention. Thereafter a post test was performed after the training. The data was assessed using descriptive analysis.

**Results:** All the nurses showed an increase in the post-test score particularly about different methods of screening, screening guidelines and its prevention. They had a positive attitude both pre and post training.

**Conclusions:** It is recommended that routine training should be given in the form of lectures or demonstrations on regular basis to
all the healthcare providers. Nurses may be able to apply this knowledge into practice & assume responsibility this will eventually help in detecting cervical cancer at the earliest.

**P0863**  
EVALUATION AND CORRELATION BETWEEN CLINICAL BREAST EXAMINATION (CBE) AND BREAST ULTRASONOGRAPHY AMONG PREGNANT WOMEN IN ABAKALIKI, NIGERIA

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**Objectives:** Breast cancer in pregnancy accounts for 2–3% of all breast cancers. The increased vascularity and lymphatic drainage from the pregnant breast potentiates the metastatic spread of the cancer to the regional lymph nodes. CBE is routinely done on booking Antenatal Clinic Attendees in our centre. However, the increased breast density in pregnancy makes it difficult to detect breast lesions early. It is based on this that Clinical Breast Examination (CBE) and breast ultrasonography among booking Antenatal Clinic Attendees were evaluated.

**Method:** A cross-sectional comparative study involving antenatal clinic attendees at the Federal Teaching Hospital, Abakaliki (FETHA) was conducted between March 3, 2014 and December 31, 2014. CBE and breast ultrasonography were done for the participants at booking and repeated at 6 weeks postpartum. Fine Needle Aspiration Cytology (FNAC) and histology were done for women with suspicious breast lesions on CBE or breast ultrasonography or both. Data analysis was both descriptive and inferential at the 95% confidence level using SPSS version 17. Test of significance was done with Chi-square test. A P-value ≤ 0.05 was considered statistically significant.

**Results:** A total of 320 booking women who made the inclusion criteria, participated in the study. A total of 267 (83.4%) of the participants were aware of breast cancer. Even though, there were more lesions detected with breast ultrasonography than CBE, there was no statistically significant difference between them (25 versus 17; P-value=0.26). The histology of the lesions revealed 21 benign lesions and 4 normal breast tissues. The sensitivity of breast ultrasonography was 95.2% while that of CBE was 66.7%. More so, the specificity, positive predictive value (PPV) and Negative Predictive value (NPV) were similar while that of CBE was 66.7%. More so, the specificity, positive predictive value (PPV) and Negative Predictive value (NPV) were similar. The sensitivity of breast ultrasonography was 95.2% and 98% for CBE. Guided biopsies agreed with hysteroscopy in 6 cases and 3 cases were negative. On the other hand, hysteroscopy failed to prove lesion present in blind endocervical curettage. The test performance showed a sensitivity of 86%, a specificity of 98%, a PPV of 67%, an NPV of 95% and diagnostic accuracy of 97.1%.

**Conclusions:** Hysteroscopy appears to be a reliable office technique, improving the detection of cervical intraepithelial lesions. The accurate localization of the lesions may facilitate the depth of cone excision to be designed, thus leading to a more preservative treatment for the future fertility.

**P0865**  
OFFICE HYSTEROSCOPY IN THE DIAGNOSIS OF CERVICAL INTRA-EPITHELIAL NEOPLASIA

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**Objectives:** To suggest and substantiate office hysteroscopy as a diagnostic tool for cervical glandular intraepithelial neoplasia in patients with cervical intraepithelial neoplasia.

**Method:** Prospective study.

**Setting:** The early cancer detection unit (ECDU), Minia Maternity University Hospital, Minia University.

**Results:** Cervical hysteroscopy diagnosed 9 cases of positive endocervical abnormalities. Guided biopsies agreed with hysteroscopy in 6 cases and 3 cases were negative. On the other hand, hysteroscopy failed to prove lesion present in blind endocervical curettage. The test performance showed a sensitivity of 86%, a specificity of 98%, a PPV of 67%, an NPV of 95% and diagnostic accuracy of 97.1%.

**Conclusions:** Hysteroscopy appears to be a reliable office technique, improving the detection of cervical intraepithelial lesions. The accurate localization of the lesions may facilitate the depth of cone excision to be designed, thus leading to a more preservative treatment for the future fertility.

**P0866**  
A SURVEY OF THE KNOWLEDGE AND UTILIZATION OF CERVICAL CANCER SCREENING (PAP SMEAR) AMONG FEMALE NURSES IN AWKA

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**Objectives:** To determine the awareness and utilization of Pap smear among nurses.

**Method:** This is a cross sectional survey of female nurses and midwives in Awka, South-eastern Nigeria. One hundred and sixty five female nurses were interviewed using structured and pre-tested self administered questionnaire. Analysis was performed using the Statistical package for Social Sciences (IBM “SPSS” statistics 21). P value less than 0.05 was considered statistically significant.

**Results:** The mean age of the respondents was 37.1 + 9.8 years with a mean parity of 2.2 + 2.1. 150 nurses (90.1%) knew of Pap smear but only 27 (16.4%) had done a Pap smear previously. Majority of them (74.5%) knew that cervical cancer is a preventable disease. Having nursed a patient with cervical cancer was significantly associated with knowledge of Pap smear (P=0.03). Only 36.4% had counseled their patients on Pap smear previously.
Conclusions: Expectedly, knowledge of Pap smear was high among this group of nurses. However, this has not translated into practice. Further research will be necessary to identify the barriers to the acceptability of cervical cancer screening tests.

P0867 HIGH RISK HUMAN PAPPILLOMA VIRUS DNA TESTING PREDICTS RESIDUAL/RECURRENT CERVICAL INTRAEPITHELIAL NEOPLASIA AFTER TREATMENT WITH LEEP

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Objectives: This study was undertaken to evaluate the value of high risk HPV testing in the follow up period of high grade cervical intraepithelial neoplasia (CIN2/3) treated by Loop Electrosurgical Excision Procedure (LEEP) as a predictor of recurrent/residual cervical intraepithelial neoplasia.

Method: Retrospectively 46 participants were analyzed in a single tertiary hospital. Colposcopic and punch biopsy proven CIN-2/3 were treated by LEEP. Post LEEP follow up was performed by colposcopy and HPV DNA by Hybrid Capture II test. Demographic variants were also analyzed. The definition of persistent/recurrent disease was biopsy proven CIN.

Results: Among 46 participants, mean age 32.43±4.45 from 25 to 40 years, CIN-2 were 42 (91.3%) & C/N-3 were 4 (8.7%). During follow up at 6 month HPV DNA test by Hybrid capture II was done in 46 patients and Colposcopic punch biopsy was taken. 5 patient (10.87%) had residual/recurrent cervical intraepithelial neoplasia with HPV DNA+ve (patient RLU/known positive RLU ratio>1.2).Early HPV DNA testing at 6 month after LEEP predict all case of residual/recurrent disease. Sensitivity and negative prediction value of HPV HC II test for residual/recurrent disease were 100% at 6 month.

Conclusions: Persistence or clearance of high risk Human Papilloma Virus is an early valid prognostic marker of failure or cure after treatment for CIN 2/3 and is more accurate than cytology and section margin. This early HPV testing implies an important role to reduce amount of post treatment follow up.

P0868 KNOWLEDGE AND AWARENESS ABOUT CERVICAL CANCER AND HPV VACCINATION AMONG WOMEN ATTENDING AT OUT PATIENT DEPARTMENT IN A TERTIARY HOSPITAL

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Objectives: The purpose of this study was to assess the knowledge and awareness regarding cervical cancer, cervical cancer screening, HPV vaccination and source of knowledge among women attending outpatient department in a tertiary hospital.

Method: A qualitative study was undertaken using face to face in depth interviews to investigate knowledge, and awareness regarding cervical cancer, screening, HPV vaccination, acceptance of vaccination. 229 participants were interviewed age (18–60) years attending outpatient department of a tertiary hospital.

Results: Among 229 women mean age 34.07±7.92, from 18 to 60 years were observed. Awareness and knowledge about cervical cancer and its screening was very poor. Only 25.3% & 22.7% participants were aware of cervical cancer and HPV vaccination respectively. Knowledge was high among women coming from high socioeconomic condition which was 68.5% (p=0.03). Participants who were highly educated had more knowledge about cervical cancer about 83.3% (p<0.001) and vaccination about 66.7% (p=0.001). There was a high acceptance (83.8%) of HPV vaccination among participants. Most of the participants (72.2%) had got the information from doctor.

Conclusions: The findings highlights the importance of awareness creation about cervical cancer and its risk factors, screening and importance of vaccination through television, cable line advertisement, poster, billboard and most importantly through health education to prevent cervical carcinoma.

P0869 EVALUATION OF PERFORMANCE BY DOCTOR VERSUS PARAMEDICAL STAFF FOR CIN SCREENING BY VISUAL INSPECTION IN LOW RESOURCE SETTINGS

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Objectives: To evaluate the sensitivity, specificity, positive predictive value and negative predictive value of visual inspection with acetic acid (VIA) and Lugol’s Iodine (VILI) by trained medics and paramedical staff in detecting cervical intraepithelial lesions. To assess the inter-observer agreement between medical and paramedical staff in detection of cervical intraepithelial lesions.

Method: A prospective cross sectional study was done. Women above 25 years with vaginal discharge, intermenstrual or post coital bleeding or unhealthy cervix were included. VIA/VILI was positive in 28 cases by the doctor and in 14 and 28 cases by the nurse respectively. The sensitivity of VIA by doctor and nurse was 68.4% and 36.8% while for VILI it was 97.4% and 73.7% respectively. There was moderate agreement between their VIA findings (% Agreement = 83%; k=0.545). VILI findings were comparable in both the groups and there was strong agreement between their VILI findings (% Agreement = 81%; k=0.620).

Conclusions: Visual inspection can be performed reliably by trained paramedical workers and doctor. The colour changes produced by VILI are more dramatic and may be easier to interpret for a paramedical worker. Medical and paramedical workers can be easily trained to perform these tests with acceptable accuracy and is an effective screening option in low resource settings.

P0870 CLIENT SATISFACTION WITH THE SINGLE-VISIT APPROACH SERVICE FOR CERVICAL CANCER PREVENTION IN ETHIOPIA

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Objectives: Cervical cancer (CC) causes hundreds of thousands of premature deaths in resource-limited settings, where lack of effective CC prevention (CCP) programs is a key reason for higher incidence. To combat CC in Ethiopia, in 2009 Pathfinder International introduced the single-visit approach (SVA), using visual inspection of the cervix with acetic acid (VIA) and same-day precancerous lesion treatment with cryotherapy, for HIV-positive women. This study assesses HIV-positive women’s satisfaction with the newly initiated SVA.

Method: A descriptive cross-sectional study was conducted in five SVA service implementation regions. From August to September 2012, 399 HIV-positive women (aged 30–45) who received the ser-
 vice were interviewed about their experience. All women treated with cryotherapy were re-interviewed after one month. Data were analyzed using SPSS.

Results: A high level of satisfaction was observed: 94% were satisfied with providers’ competence to deliver the service and 91.5% were satisfied with the counseling received. Nearly all (98.8%) received services after their expected waiting time and 84% reported no procedure-related discomfort. All women who returned for the follow-up interview after cryotherapy reported less discomfort than anticipated. All women were satisfied with their decision to receive the SVA service and agreed to continue to use the service. High service acceptance (95.2% for VIA, 100% for cryotherapy) may also reflect women’s satisfaction.

Conclusions: The results showed a high level of satisfaction with the SVA service. Women are more likely to seek services if they know the service is high quality, which is essential to increasing acceptance of CCP services and curbing rates of CC.

P0871
PERCEPTION AND BEHAVIOR OF THE TUNISIAN WOMAN WITH REGARD TO BREAST CANCER
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Objectives: Our aim was to have a global approach of the situation of the Tunisian woman in Breast cancer (BC) knowledge, attitudes and practices of screening.

Method: We led an investigation on a sample of 2037 women distributed in 7 governorates. The survey was made by means of a questionnaire.

Results: Overall, awareness among the participants that cancer could be located in the breasts was 69.1%. Only 26.3% knew about screening methods. The best known screening method was self-breast examination (40.0%). Mammography was the least known (18.2%). In the present study, only 22.4% (n=971) of women declared that they had received at least one clinical breast examination. There was a significant difference according to area. Almost 50% of women did not practice self-breast examination. Only 8.6% of women declared that they had received at least one mammography screening.

Conclusions: The review of the literature and our results allowed us to release the importance of the good information of the women to the advantage of the breast cancer screening; so, we can draw the guidelines of a strategy of information, education and communication which can favor the generalized breast cancer screening by the systematic and regular mammography in Tunisia.

P0872
A RETROSPECTIVE AUDIT ON THE COLPOSCOPY SERVICES IN CWM HOSPITAL FROM FEBRUARY 2011 TO SEPTEMBER 2011
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Objectives: The objectives were to assess the strength of correlation between the cytology, colposcopy and histology results in high grade and micro invasive lesions, to assess the duration between the time of the referral and colposcopy clinic, the time between colposcopy clinic and 1st follow up clinic, and the time of onset of treatment, assess the rate of default patients and assess the management of histologically confirmed high grade intraepithelial and micro invasive lesions.

Method: Patients’ folders were collected from the Gynaecology clinic. Patients that did not turn up for colposcopy were documented next to the patients name in the Colposcopy book. They were de-identified by using the hospital numbers and number coding as identification.

A colposcopy audit form was downloaded from the (HKSCCP) website. This audit form was then formulated onto the Epi Info database, in which all the required patient information was entered. The standard used for this audit was from the National Health Screening (NHIS) cervical screening programme guidelines, 2nd edition. It was published in May 2010, and is titled “Colposcopy and Programme Management”.

Results: PPV for cytology was 41%.
PPV for colposcopy was 53%. 77% of women were seen in Colposcopy clinic within 4 weeks. 40% of women with biopsy proven HGSIL were seen within 8 weeks. 83% of women with proven HGSIL were treated within 4 weeks of diagnosis. Default rate for colposcopy was 18%. 27% of the women had biopsy proven HGSIL. 10% of all biopsies were microinvasive. Examination of the LLETZ specimens showed that 6 were microinvasive. 1 patient had a radical hysterectomy and 5 had hysterectomies and 2 as HSIL in which 1 was followed up with Paps smear.

Conclusions: The PPV for cytology in HGSIL was 41% which was low. The PPV for colposcopy was 53% which was low. 77% of women were seen in colposcopy clinic within 4 weeks which was standard. 83% of women with HGSIL were treated within 4 weeks. The default rate in the first follow up clinic was 12% which is standard but for colposcopy clinic, it was 18%. HGSIL lesions were treated with LEETZ which was suitable. Subsequent course of management was suitable. Incomplete excision rates of 32% were high. Women with microinvasive lesions were treated adequately. Subsequent treatment was inadequate for women planned for hysterectomies.

P0873
KNOWLEDGE OF CERVICAL CANCER AND SCREENING BARRIERS AMONG MID-LIFE WOMEN IN BANGLADESH
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Objectives: Cervical cancer (CCa), a highly preventable disease, is the second most common cancer amongst women in Bangladesh. However, the uptake of screening for CCa in Bangladesh has been less than 10% in screened areas where it is offered. We have investigated the knowledge of CCa and CCa screening, and factors associated with women’s preparedness to undergo screening in Bangladesh.

Method: A nationally representative cross-sectional survey of 1590 women aged 30 to 59 years was conducted in 7 districts of the 7 divisions in Bangladesh utilizing a multistage cluster sampling technique. The factors associated with the knowledge of CCa and screening uptake were investigated separately, using simple and multivariable logistic regression.

Results: 81.3% and 48.6% of participants had ever heard of CCa and screening respectively. Of those who had heard of screening, 8.3% had been screened, 86% had no screening as they were asymptomatic and 37% did not know screening was needed. CCa knowledge was positively associated with age 40–49 years (adjusted OR 1.59, 95% CI: 1.15–2.0) and obesity (2.04, 1.23–3.36) and negatively associated with rural dwelling (0.42, 0.26–0.67) and no education (0.25, 0.16–0.38). Having been screened was positively associated with age 40–49 years (2.17, 1.19–3.94) and employment (3.83, 1.65–8.9), and negatively associated with rural dwelling (0.54; 0.30–0.98), and no education (0.29, 0.10–0.85).

Conclusions: Knowledge was the main barrier for screening uptake. Therefore, targeted educational health programs are needed to increase the knowledge of CCa and screening in Bangladesh. This is likely to increase CCa screening uptake and reduce CCa incidence and mortality.
P0874
ACCEPTABILITY OF INTEGRATION OF CERVICAL CANCER SCREENING INTO ROUTINE ANTENATAL AND POSTNATAL CARE SERVICES
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Objectives: This study aimed to assess the acceptability of integrating cervical cancer screening into routine antenatal and postnatal care services at the University College Hospital, Ibadan.

Method: It was a questionnaire-based cross-sectional study conducted among 395 consenting antenatal and postnatal clinic attendees at the University College Hospital, Ibadan. The outcome was measured by knowledge of cervical cancer risk factors, Pap smear as a screening method and its utilization; and if utilization in pregnancy and postnatal period is acceptable.

Results: The knowledge of risk factors for cervical cancer was poor 77.1%; 10.6% and 12.4% had good and fair knowledge respectively. Forty-two percent were aware of cervical cancer prevention; 61.3% knew about Pap smear. Respondents either liked Pap smear in pregnancy (39.7%), unsure (43.0%), did not want it in pregnancy (17.3%); and 45.1% will like it in postnatal period. Only 11.6% ever had Pap smears, 88.4% never had it. Reasons for non-use were never heard of, lack or unaware of screening centers and perceived as unnecessary procedure. Pain, embarrassment and perceived need for repeat were reasons for lack of follow-up smears.

Conclusions: The knowledge of Pap smear was poor and so was utilization of the services and acceptability of screening in pregnancy and postnatal period. More health education is required to create awareness and enable patients informed decision to have cervical cancer screening. The antenatal and post-natal period may be an opportunity to introduce a woman to Pap smear screening by counselling and possibly initiation of the first screen. This may foster the use of the service in the pregnancy, postpartum period and beyond; and set the stage for routine Pap smear screening in our environment.

P0875
HPV16 E6 MUTATIONS AND P53 CODON72 POLYMORPHISM AMONG WOMEN WITH CERVICAL INTRAEPITHELIAL NEOPLASIA 2 AND 3 IN BEIJING IN CHINA
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Objectives: To investigate HPV16 E6 gene mutations and P53 codon72 polymorphism in women diagnosed as cervical intraepithelial neoplasia (CIN) 2 and 3.

Method: A total of 112 exfoliated cervical cell specimens which were HPV16 positive from women in Beijing in China were included. These cases were divided into group 1 (normal and CIN1, 55 cases) and group 2 (CIN2 and 3, 57 cases) according to pathological diagnosis. Full-length HPV E6 gene was successfully amplified from 85 specimens by PCR with E6 specific primers, and the PCR products were sequenced directly and compared with a German standard strain. P53 codon72 region was also amplified from the 112 specimens with specifically-designed primers, and the PCR products were sequenced directly and compared with the standard sequence.

Results: Seventy out of 85 cases had HPV16 E6 point mutation. T178C was the most common mutation of HPV16 E6. The rate of T178C in CIN 2 and 3 cases was significantly higher than that in normal and CIN1 cases. The 112 cases of P53 codon72 sequences showed that there were more cases with Pro/Pro genotype in group of CIN2 and 3 than that in group of normal and CIN1. According to the calculated OR value, the risk of CIN2 and 3 in cases with either Arg/Arg or Arg/Pro was 10-times lower than that with Pro/Pro.

Conclusions: HPV16 E6 T178C mutation significantly related to CIN2 and 3 and may be a risk factor for CIN2 and 3. The risk for CIN2 and 3 of Pro/Pro genotype was much higher than that of Arg/Arg and Arg/Pro genotypes.

P0876
THE EFFECT OF BREASTFEEDING ON RISK OF BREAST CANCER IN SAUDI WOMEN
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Objectives: To investigate whether breast feeding is related to the risk of breast cancer.

Method: A cross sectional study was undertaken to investigate the relation between breastfeeding and risk of breast cancer on 91 patients diagnosed to have breast cancer. Data was obtained from questionnaires administered to the patients including Their demographic data and detailed history of breastfeeding practice.

Results: The results showed 65.5% of women with breast cancer breastfeed their children for the duration of 6/12 with 61.4% developed the breast cancer during the perimenopausal period. The results clearly indicated that breastfeeding does not have a protective effect against breast cancer. The data obtained was analyzed by SPSS software.

Conclusions: These results suggest that breastfeeding do not protect against development of breast cancer in Saudi women.

P0877
HPV HIGH RISK/VACCINATION
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Objectives: Assess the impact of vaccination in our patients after give them proper information of the quadrivalent vaccine.

Method: Observacional retrospective descriptive study. Target population: Patients who come to our unit of cervical pathology from January 2011 to May 2014 and are carriers of high risk HPV independently of the grade of injury. We inform all the patients who fulfill the criteria for vaccination. Following the protocols we perform subsequent controls. We made a comparison between the three groups: No vaccine-preventable, vaccine-preventable who choose not to access the vaccine and vaccinated. We compare vaccinated and non vaccinated.

Results: All information is introduced in databases and we obtain the following results:
Total number of cases: 708.
Can not vaccinate: 160.
Can vaccinate: 548 – Not vaccinated 389.
– Vaccinated 159.
Can not vaccine-injury disappears 90 (56.3%).
Can vaccinated-not vaccinated 389 injury disappears 202 (51.9%).
Can vaccine-vaccinated 159 injury disappears 100 (62.9%).
Conization or hysterectomy:
Can not vaccinate 160 – 33 (20.6%).
Can vaccinate-not vaccinated 389 – 65 (16.7%).
Can vaccinate-vaccinated 159 – 27 (17.0%).
Positive HPV with normal cytology: 208 cases.
Vaccinated patients: in our annual check 60% of them remove the virus (125 cases).
Not vaccinated patients: in our annual check 40% of them remove the virus (83 cases).

Conclusions: In our group of patients and in a short-term vaccination, an increased remission of the lesion (21.2%) is associated.
This increase in the percentage rises to 40.9% when the patient is high risk HPV positive with normal cytology. After give to the patients a successful vaccination information only one of four patients decide to vaccinate. Is observed not to be significant differences between the three groups regarding surgery (conization or hysterectomy). We will have to pursue long-term studies but for now it seems that positive HPV high-risk patients may benefit from vaccination with the quadrivalent vaccine.

P0878
ATYPICAL SQUAMOUS CELLS, CANNOT EXCLUDE HIGH-GRADE SQUAMOUS INTRAEPITHELIAL LESION: CLINICAL SIGNIFICANCE ANDIMPACTOFAGE

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Objectives: To evaluate the outcome of Pap smears diagnosed as atypical squamous cells, cannot exclude high-grade squamous intraepithelial lesion (ASC-H) obtained from the women attending the organized cervical cancer screening program.

Method: We reviewed cervical smears interpreted as ASC-H in our laboratory between October 2011 and June 2013. The cytologic diagnoses were compared with biopsy results and/or cytologic follow-up for at least one year. The outcome was defined as clinically significant at the threshold of CIN2+. The prevalence of CIN2+ was estimated according to age (threshold 50 years).

Results: Among 70,533 consecutive Pap smears 204 (0.28%) were interpreted as ASC-H during the study period. 35 patients had no follow-up data, leaving 169 cases in the study group. The rate of histologically proven high grade cervical lesions was 53% (90/169), among them there were 37 cases of CIN2, 52 cases of CIN3 and one invasive carcinoma. Clinically significant lesions (CIN 2+) were found in 78 out of 133 patients under 50 years of age and in 12 out of 36 patients older than 50 years.

Conclusions: A substantial subset (53%) of patients with ASC-H interpretations had biopsy-proven CIN2+. In our study, age didn’t have a statistically significant effect on the severity of lesions.

P0879
KNOWLEDGE OF CERVICAL CANCER SCREENING AND TREATMENT AMONG A SAMPLE OF CLIENTS IN ETHIOPIA

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Objectives: Cancer of the cervix is the second most common cancer among women worldwide. The condition is particularly common in sub-Saharan Africa. In Ethiopia cervical cancer is one of the most prevalent cancers and the leading cause of cancer mortality among women. We conducted a baseline survey to assess knowledge of cervical cancer among woman of reproductive age (15–49) in preparation for service initiation intended to increase access to and use of affordable, high-quality cervical cancer screening and preventive treatment services.

Method: We conducted a cross-sectional survey, using quantitative methods, on 18–29 September 2014 in 10 purposively selected health facilities (7 Marie Stopes and 3 BlueStar clinics) across 9 towns in 2 regional states and in 2 city administrative areas. In total, 316 women who were being seen at these clinics participated. To analyze the data, we used SPSS version 17 and Microsoft Excel. When asked if they knew about screening for pre-cancerous cervical conditions, more than half (58%) reported that they knew about screening, but most (81%) did not know any specific screening method. The majority of women (75%) reported that they had never had a pelvic exam or a speculum examination for cervical cancer screening, but most (93%) were willing to be screened.

Conclusions: Knowledge on the causes, symptoms and prevention of cervical cancer was somewhat limited. Encouragingly, there was a high level of willingness to be screened. These findings highlight the need for a robust health education and promotion programme to educate women in Ethiopia about cervical cancer. Cervical cancer screening and treatment programmes should be scaled up to address the high rate of cervical cancer in Ethiopia.

P0880
FEASIBILITY OF MOBILE COLPOSCOPY CAMP AS A MASS SCREENING METHOD IN DOWNGRADING INCIDENCE OF CERVICAL CANCER FOR WOMEN IN DISADVANTAGE COMMUNITY

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Objectives: 1. Presenting colposcopy as a feasible alternative for a mass screening than is presently used. 2. To appreciate the percentage difference in incidence and severity of grades of cervical neoplasia, in rural and urban women population in critical age group.

Method: 1. Grass root workers were involved for motivation talks in high risk age group. In one village, house to house visits were done, but in another area, 2000 brochures in Hindi were distributed. 2. In urban areas publicity was done by distributing brochure, erecting banners in nearby areas and putting advertisement in the local newspapers.

Methodology planned were same for both free camps. On arrival women’s name, age addresses and basic gynecological histories were recorded and a serial no: was given. Menstruating and Pregnant women were excluded.

Results: The results were surprising but in keeping with associated risk factors involved for initiation of dysplasia, i.e. hygienic condition, genital infection, young age sexual commencement, inadequate family planning awareness and facilities, resulting in multiparity. 42 patients in rural camp with results of 50% (21) had positive colposcopy findings of varying grades, 15% (6) was negative, 26% (11) had infection, mainly Trichomonas, 9% (4) the TZ not visible entirely making it unsatisfactory.

28 patients in urban camp with results of 60% (17) had positive colposcopy findings of varying grades, 28.5% (8) had cervicitis, mainly with Trichomonas, 10.5% (3) were negative.

Conclusions: I conclude that single screening visit approach is a public health approach to cervical cancer downgrading that considers a social limitation in lives of women at disadvantage and, gives them advantage of prevention by early detection. This empowers the gynecologist with benefit of single visit decision making approach. Ultimately if we successfully target screening of the high risk population of women (30 to 50 years age group) even once or twice in their life time then it could yield a reduction of 25 to 30% in incidence of cervical cancer (Shankarnarayan).
that need only few months for developing of an invasive cancer. The process starts with the so-called dysplasia, which arise in the outer layer, directly turns into invasive cancer, skipping the phase of the carcinoma in situ. Its general knowledge that regular Pap smear and colposcopy tests reduce incidence and mortality of the invasive cervical cancer.

**Method:** Intra-epithelium and early invasive cancers belong to the group of pre-clinical cancers that may be detected by regular exams. There are two methods for their detection: seeking and verification methods. The seeking method includes cyto-diagnosis (Papanicolaou) and colposcopy.

In the last four months of 2014, a total of 2,264 exams were carried out at the gynecological dispensary, i.e. 1,054 obstetric and 1,210 exams. A total of 330 smears were taken. Smear of the other woman was not examined because: a) They already have had negative results for the last three years, and b) because doctors failed to carry out the smear test.

**Results:**
1. Negative result: 313 – 94.8%.
2. Slight to moderate dysplasia CIN I: 8 – 2.4%; CIN II: 5 – 1.5%.
3. Severe dysplasia CIN III: 1 – 0.3%.
4. Cells indicating carcinoma in situ: 1 – 0.3%.
5. Very suspicious cells for invasive cancer: 2 – 0.6%.

**Conclusions:** Expectations are that application of those tests in a gynecology dispensary will prevent invasive cervical neoplasm in women, as natural course of the disease will be interrupted by early gynecology dispensary will prevent invasive cervical neoplasm in women, as natural course of the disease will be interrupted by early

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**P0883**

**HPV+ PATIENTS, AGE AS PROGNOSTIC FACTOR IN THE EVOLUTION OF HSIL**

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**Objectives:** The objective was to study the rate of progression to HSIL by age group of the HPV-positive patients, and to assess whether there is an age group with the largest increase in progression to HSIL.

**Method:** Retrospective study of 438 patients HPV+, a total of 6045 HPV determinations made in the period from January 2009 to December 2013. We studied:
- the rate of progression to HSIL by age (<25 years, 25–45 years, 46–60 years, >60 years).
- interval time evolution of HSIL.

**Results:**

- HPV+ groups by age / evolution to HSIL:
  - <25 years / 0
  - 25–45 years / 19
  - 46–60 years / 6
  - >60 years / 4

- Rate of progression to HPV by age:
  - <25 years: 0%.
  - 25–45 years: 5.51%
  - 46–60 years: 1.74%
  - >60 years: 1.16%

- Time evolution to H-SIL:
  - 6–12 months: 12–24 months: 24–36 months
  - 18 (62%) 8 (27.6%) 3 (10.4%)

**Conclusions:** In the age group <25 years any case evolves to HSIL, evolutionary rate 0%.

The age group with the highest rate of progression to HSIL was that of 25–45 years, with a rate of evolution of 5.51%, much higher than the rate of evolution of the age group 46–60 years (1.74%) and age >60 years (1.16%). The evolution of a H-SIL in the 62% of cases occur in the first year follow-up of HPV+ patients.

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**P0884**

**TRIAGE OF ATYPICAL GLANDULAR CELL BY SOX1 AND POU4F3 METHYLATION: A TAIWANESE GYNECOLOGIC ONCOLOGY GROUP (TGOG) STUDY**

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**Objectives:** To determine the role of asymptomatic sexual transmitted infections (STIs) such as Chlamydia trachomatis (Ct), Mycoplasma genitalium (Mg), Mycoplasma hominis (Mh) and Ureaplasma urealyticum (Uu) in gynecology outpatient with human papillomavirus (HPV) infections.

**Method:** 102 asymptomatic outpatients aged between 22 and 75 (48.9±11.04) were enrolled during routine gynecological screening test. Specimen collected by cervix brush (Rovers Medical Devices B.V., The Netherlands) was routinely analyzed by Hybrid Capture 2 assay (Digene Corp., Gaitherburg, MD) for detecting HPV. Simultaneously, specimen obtained by endocervical swab was used to detect Ct and Mg by singleplex real-time PCR (Seegene, Seoul, Korea) and utilized to prove Mh and Uu by Mycoplasma IST 2 kit (bioMérieux, Marcy-l’Etoile, France).

**Results:**
- Detection rate (% of HPV, Ct, Mg, and Uu were 63/102 (61.8), 7/102 (6.9), 2/102 (2.0) and 47/102 (46.1), respectively. Of 47 Uu infections, 16 (34%) showed high density colonization (HDC, >10⁴ CFU/ml). All Ct infections (7/7) were found in HPV infected group (p=0.042, Fisher’s exact test). And Uu infection was significantly related to HPV infection (p=0.021, Chi-square test); However, Mg (only 2 cases) and Mh infection were not associated with HPV infection (p=0.52, p=0.769, Fisher’s exact test).

**Conclusions:** Our data suggested that asymptomatic bacterial STIs such as Ct and Uu were closely related with HPV infection. We insist that Ct or Uu infection could be risk factors of HPV infection. Therefore, simultaneous evaluation of Ct and Uu should be performed with HPV detection on gynecology outpatients.
sion, cervical conization, and endometrial sampling are often recommended when atypical glandular cells (AGC) are detected on Pap smear with unsatisfactory colposcopy. These invasive procedures may result in patient anxiety, increased medical expense, and increasing the risk of preterm delivery in subsequent pregnancies. This study was performed to assess methylation biomarkers in the triage of AGC on Pap smear for invasive procedures.

**Method:** We conducted a multicenter study in 13 medical centers in Taiwan from May 2012 to May 2014. A total of 55 samples diagnosed “AGC not otherwise specified” (AGC-NOS) were included. All patients with AGC underwent colposcopy, cervical biopsy, endometrial sampling, and conization if indicated. Multiplex quantitative methylation-specific polymerase chain reaction (QMSPCR) was performed. Sensitivity, specificity, and accuracy were calculated for detecting CIN3+ and endometrial complex hyperplasia.

**Results:** In 55 patients with AGC, the sensitivity for methylated (m) SOX1m, PAX1m, ZNF582m, PTPRRm, AJAP1m, HS3ST2m, and POU4F3m for detecting CIN3+ and endometrial complex hyperplasia lesions was 100, 86, 71, 86, 86, 57, and 100%; specificity was 67, 79, 85, 50, 52, 96, and 52%, respectively. Testing for high-risk HPV had a sensitivity of 57% and specificity of 75% for CIN3+ and endometrial complex hyperplasia lesions.

**Conclusions:** Methylated (m) SOX1m and POU4F3m could be new methylation biomarkers for detection of CIN3+ and endometrial complex hyperplasia in AGC. Women with AGC and positive SOX1m/POU4F3m, colposcopy, cervical conization or endometrial sampling should be considered.

**P0886**

**DEDICATED PROVIDERS INCREASE CERVICAL CANCER POSITIVITY RATES USING VIA/VILLI TECHNIQUE: A CASE STUDY FROM MARIE STOPES KENYA**

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**Objectives:** Marie Stopes Kenya (MSK) is an implementing partner of the Cervical Cancer Screening & Preventative Therapy partnership, which aims to integrate and scale up cervical cancer screening into existing reproductive health networks in four African countries [RC1] (Nigeria, Tanzania, Kenya and Uganda). Since project inception in 2012, MSK has observed cervical cancer positivity rates among clients of 2% to 4%, much lower than the WHO’s suggested positivity rate of around 10%. MSK implemented a dedicated provider model of cervical cancer screening and collected data enabling determination of the model’s effect on positivity rates.

**Method:** In July 2014, MSK identified two mid-level cadre service providers to become dedicated providers of cervical cancer screening in the four target countries. The providers had been trained in the VIA/VILLI technique of cervical cancer screening in February 2014, but underwent further competency-based training in July 2014. Health facilities with known high client flow were utilised on a routine basis as screening sites to reach more women. The results of cervical cancer screening performed by these providers between July 2014 and January 2015 were compared with those of other mid-level providers.

**Results:** Between July 2014 and January 2015, the two dedicated providers screened 3,445 women in both public and private facilities. Of the women screened, 229 tested positive for pre-cancerous lesions of the cervix - a 7% positivity rate. Of the 229 positive women, 192 (83%) were eligible for treatment with cryotherapy, and 187 (97%) received treatment on the same day. The remaining eligible women were referred to more advanced facilities for higher-level treatment. MSK’s other mid-level providers who screened during the same time period observed positivity rates averaging 3%.

**Conclusions:** The positivity rate was higher in clients screened by the dedicated providers than in those screened by non-dedicated providers of the same cadre. These results add to a body of evidence demonstrating that provider competency on the VIA/VILLI screening technique improves accurate identification of precancerous lesions. A model in which service providers’ screen on a routine basis could improve the quality of services provided to women and deliver higher health impact. For example, a provider initiated screening approach could improve providers screening practices and help improve on their skills on the VIA VILLI technique.

**P0887**

**CONCORDANCE ANALYSIS OF METHYLATION BIOMARKERS BETWEEN SELF-COLLECTED AND PHYSICIAN-COLLECTED SAMPLES IN CERVICAL NEOPLASM**

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**Objectives:** Non-attendance is a major limitation of cervical cancer screening, while self-sampling is an alternative method for this. Although HPV-testing on self-collected vaginal samples is acceptable,
the specificity is insufficient. The current trend is focused on minimizing patient visits to a physician and increasing the use of self-collected vaginal samples.

We verified the concordance and clinical performance between self-collected vaginal samples and physician-collected cervical samples for DNA methylation biomarkers (PAX1, SOX1, and ZNF582) in cervical neoplasm.

**Method:** We enrolled 136 cases with paired methylation data identified from abnormal Pap smear (n=126) and normal control (n=10). Study group included 37 CIN1, 23 CIN2, 16 CIN3, 30 CIS, 13 squamous cell carcinomas (SCCs) and 7 adenocarcinomas (ACs)/adenosquamous carcinomas (ASCs).

Real-time quantitative methylation-specific polymerase chain reaction was done to assess the methylation status of PAX1, SOX1 and ZNF582 in study samples. We generated cutoff values of methylation index for detection of CIN3+. The concordance between physician-collected and self-collected group were evaluated by Cohen’s Kappa. Sensitivity, specificity and area under curve (AUC) were calculated for detection of CIN3+ lesions.

**Results:** Sensitivity, specificity and AUC of PAX1, SOX1 and ZNF582 showed no significant difference between self-collected and physician-collected groups. Methylation status of all the three genes in normal control cervixes, CIN 1, CIN2, CIN3, CIS, ACs/ASCs and SCC of cervix were concordant between these two groups. ZNF582 carries the highest specificity of 0.87 in self-collected groups. To obtain the best cutoff values from the self-collected group, we find that ZNF582 had the highest sensitivity (0.77; 95% CI: 0.65 to 0.87) using a cut-off of 0.0204.

**Conclusions:** Methylation biomarker analysis of the three genes shows good concordance between self-collected and physician-collected samples. This might help improve cervical screening by decreasing the rate of non-attendance.

**P0889**

SCREENING AND MANAGEMENT OF WOMEN ATTENDING COMMUNITY BASED HEALTH CAMPS IN BANGLADESH

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**Objectives:** To find out the number of cervical pre-cancer and cancer among women attending health camps arranged at upazila health complexes with existing services of cervical cancer screening. To follow their management and observe constrains for availing the screening services.

**Method:** A cross sectional study was carried out at 96 health camps at upazila health complexes in 40 districts of Bangladesh from June 2012 to June 2014. A total of 52651 women attended the 4 days long health camps for screening cervical pre-cancer and cancer by Visual Inspection of cervix with Acetic Acid (VIA). VIA positive women were referred to the colposcopy clinic of Bangabandhu Sheikh Mujib Medical University (BSMMU) and nearer medical college hospitals for further management. VIA positive women had colposcopy and suspected pre-cancers were offered LEEP (Loop Electrosurgical Excision Procedure) or cold coagulation following “colposcopy and treat” protocol.

**Results:** On an average 548 women attended the health camp. The mean age of women was 37.2 (SD± 9.5) years. Among 52651 screened women, 2478 (4.7%) were VIA positive and among them 890 (35.9%) attended the colposcopy clinics. On colposcopy examination 36.5% had low grade lesions, 15.3% had high grade lesions and 1.1% had cervical cancers. 214 (24.0%) women with cervical pre-cancers were managed by LEEP and 114 (12.8%) were managed by cold coagulation. A significant number (64.1%) of screen positive women did not attend in colposcopy clinics and of which, about half could not be communicated over telephone.

**Conclusions:** The participation of women in the health camps was satisfactory. Women attending colposcopy clinics showed high acceptability to avail the “colposcopy and treat” protocol. The non-attendance to colposcopy clinics might be too much distance to the colposcopy clinics, financial crisis, lack of family support and social stigma. We believe that existing screening services and organizing the community based health camps at upazila health complexes with regular interval will improve the population coverage. Colposcopy and treatment services as “one stop service” along with the referral of difficult cases to colposcopy clinics may be effective for reduction of cervical pre-cancer and cancer.

**P0890**

CERVICAL CYTOLGICAL FINDINGS AT THE NATIONAL OBSTETRIC FISTULA CENTRE, ABAKALIKI, NIGERIA

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**Objectives:** Cervical cancer is the commonest gynaecological malignancy in the developing world. Screening with the aid of visual inspection with acetic acid (VIA) and Pap smear constitute the mainstay of prevention in our environment. The study was carried out to review Pap smear findings among women screened for cervical cancer screening.

**Method:** A retrospective study of 316 women who underwent cer-
vical cancer screening using the Pap smear at the National Obstetric Fistula Centre, Abakaliki, South-East Nigeria between October 2012 and March 2013. Sociodemographic details, medical history, physical examination findings, VIA results and Pap smear results were extracted from the database. Analysis of data was done using SPSS version 21.

Results: The mean age of the clients was 40.7 ± 10.7 years and majority of the women (33.5%) were aged 30 - 39 years. Majority of the women were married (75.3%) and grandmultiparous (63%). Over half of them were farmers (57.6%). Vaginal examination was normal in 87.7% of the women. Majority (66.5%) of the women had a negative test with VIA. Pap smear revealed normal result in 50%, inflammatory cells in 26.6% and dysplastic cells in 0.6% (2) of the women. The two women with dysplastic changes were married, of high parity with normal vaginal examination findings and negative VIA test.

Conclusions: The study showed a high awareness and uptake of cervical screening and a low prevalence of abnormal cervical smears among women in this environment.

P0891
FIRST PRECANCEROUS MASS SCREENING BY VIA/VILI IN COUNTRYSIDE OF 4 REGIONS OF NIGER

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Objectives: The aim was to determine precancerous lesion in country side population.

Method: We report the results of mass cervical cancer screening by visual inspection method. It was a 6 months prospective study from October 2012 to March 2013 in countryside of four regions of Niger Republic. We visited every region during 2 consecutive days. When test abnormal test biopsy was made to be examined in the anatomo pathological unity of NISS.

Results: A total of 1,922 women were screened aged 15–67 years old, mean 32.52 years old. Precancerous lesions were relatively to patients 20–39 years old in 66.33% of cases, 15.13 years old at menarch, first married at 15–19 years old, and 57.95%. The patients had a very low level of education, 62.12%, were Multiparous 47.14% with no history of significant abortion. The lesions were chronic cervicitis 1.14%, HPV infection 0.68%, 2 cases of CIN 1, 0.26% and 2 and invasive squamous cell carcinoma in 0.10% of cases.

Conclusions: The study allows us to assert full control of testing by trained practitioners. The visual inspection methods are simple tests, cheaper, easily acceptable by the patient.

P0892
THE LANDSCAPE OF CERVICAL PRECANCER TREATMENT IN LOW-RESOURCE SETTINGS: NOT A PRETTY PICTURE

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Objectives: While organized screening programs have dramatically reduced cervical cancer rates in wealthy countries, they have largely failed to take hold in low and middle income countries (LMICs). As a result, more than 265,000 women die each year from cervical cancer, with 85% of those in LMICs. As part of an effort to understand the market dynamics of cryotherapy equipment, we undertook a landscape analysis of selected countries in Africa, Asia and Latin America to identify the supply, availability, price, procurement mechanisms, and distribution of treatment equipment and gas.

Method: This qualitative, descriptive study was carried out in two stages. In the first stage, we did a general review to identify key attributes to include in the topic guides and critical stakeholders to interview. For the second stage, interviews using the topic guides were conducted in nine focus countries with 6–12 key informants in each; in three additional countries, partial data were gathered from just one or two informants. Content analysis was conducted on the interview data to identify themes and patterns.

Results: Interviews were completed in five African countries (Ghana, Kenya, Senegal, Tanzania and Uganda), three Asian countries (Cambodia, India, Viet Nam), and one Latin American country (Guatemala). Partial data were gathered from Ethiopia, Myanmar, and South Africa. National screening policies were in place for about half the countries, but even those with approved policies had very limited implementation of them. Treatment equipment availability and maintenance problems, unreliable gas supplies, limited screening services, and poorly functioning referral systems were common features. While a few countries offer free preventive treatment, most require patients to pay amounts ranging from US$6–28 in public facilities.

Conclusions: There are multiple barriers that constrain cervical screening and preventive treatment services. Even with the new screening tools that are now available, programs will not succeed without attending to the challenges that limit essential treatment. A multi-faceted approach that addresses identified local factors will be needed if women in LMICs are to have access to preventive services similar to that enjoyed by their sisters in richer countries.

P0893
TO ANALYZE THE FREQUENCY OF HPV TYPES IN LSIL AND THEIR ASSOCIATION WITH THE REGRESSION, PERSISTENCE OR PROGRESSION OF THESE LESIONS

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Objectives: The Association of HPV Genotype with the Regression, Persistence or Progression of Low-Grade Squamous Intraepithelial Lesions.

Method: A cohort study of forty patients with LSIL cytology was conducted from December 2007 to March 2011. The follow-up lasted two years and included cytology and colposcopy. HPV detection was performed using PCR, and genotyping was performed using PCR-specific and RFLP techniques.

Results: DNA-HPV was detected in 87% (35/40) of the cases, with oncogenic HPV accounting for 76%; type 16 in 32% (11/35) and type 18 in 20%. LSIL regression, persistence and progression rates at the end of the study were 60%, 23% and 17%, respectively. There was 50% regression in lesions in the high oncogenic risk group (types 16 and 18).

Conclusions: HPV 16 was the most frequent genotype found in LSIL. The persistence and progression of the LSIL were related to the persistence of oncogenic HPV. The longer the follow-up time, the lower the LSIL persistence rate and the higher its regression rate; the progression rate remained stable. In addition to the presence of oncogenic HPV, other factors are necessary for the progression of LSIL.

P0894
FEASIBILITY AND RELIABILITY OF CERVICAL CANCER SCREENING BY HPV DNA TESTING OF SELF-COLLECTED SAMPLES IN A NORTH INDIAN COMMUNITY

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Objectives: 1. To assess the feasibility and reliability of self- vs provider-collected samples. 2. To study the HPV genotypes in a North Indian community.

Method: Sexually active women aged 30–60 years with no history of previous cervical procedures self-collected vaginal samples (HPV-S). A provider then collected cervical samples for conventional Pap
smear and HPV DNA (HPV-P) testing. Colposcopy was performed on all positive cases, with directed biopsy, if indicated. HPV testing was done by the method of Hybrid Capture 2 (HC2, Qiagen Inc.) and genotyping was done by Linear Array PCR (Roche). Test characteristics of various screening methods were determined. Concordance between results of self- and provider-collected samples was determined using a Kappa statistic (κ).

**Results:** Of 989 women, 83 (8.3%) were positive by HC2-S or HC2-P; 72 (7.2%) women on PCR; 18 high-risk and 8 low-risk HPV types were identified. Complete concordance was seen in 972 pairs (23 positive for same HPV type(s), 949 negative); partial concordance (both positive, different types) in 5 pairs; complete discordance in 10 pairs (provider-positive, self-negative – 4; provider-negative, self-positive – 6). There was 94.6% (95% CI: 93.2, 96.0) agreement (936/989 pairs) between self- and provider-collected samples [kappa = 50.4% (95% CI: 44.3, 56.5)]. The sensitivity, specificity of HC2-S and HC2-P were 50% and 99.3% respectively.

**Conclusions:** Self-sampling for HPV testing compared favourably with provider-sampling and conventional cytology. With the availability of an affordable test it can be a possible alternative for cervical cancer screening in developing countries.

**P0895**

**CERVICAL CANCER SCREENING WITH VIA IN EASTERN NEPAL – 3 YEARS ANALYSIS**

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**Objectives:** Objective was to analyse VIA as a screening tool for cervical cancer screening and efficacy of the treatment done from VIA positive lesions after one year follow up.

**Method:** All women of age 30–60 years are included in the study. step and the VIA testing in next step and the possible results and treatment options, cryotherapy/LEEP and its side effects if +ve VIA test result and the follow Patients were counseled about the importance of cervical cancer screening in first up. At the end of one year repeat VIA was tested and repeat treatment was done if found to be positive.

**Results:** Till date 12321 women have been already screened and 721 VIA +ve have been found and in 601 cryotherapy and rest 120 –LEEP has been performed. Apart from this 22 invasive cancers of cervix were detected and referred for radiotherapy. After 1 year of cryotherapy during follow up 130 have been found to be VIA negative and rest is yet to complete the one year after treatment.

**Conclusions:** VIA is a acceptable method of cervical cancer screening at our setup of low resource country. We should increase our screening plan more to the community.

**P0896**

**RISK SCORING MODEL FOR VENOUS THROMBOEMBOLISM IN GYNAECOLOGICAL CANCER PATIENTS; DERIVATION COHORT**

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**Objectives:** Venous thromboembolism (VTE) is a common post-operative complication in cancer patients associated with high mortality rates. Formalised risk assessment models (RAMs) for venous thromboembolism (VTE) using weighted and scored variables have only recently been widely incorporated into international anti-thrombotic guidelines. So the aim of the study was to develop a risk scoring model for predicting venous thromboembolism in gynaecological cancer patients.

**Method:** All patients attending St. James's Hospital with confirmed gynecological malignancies between 2006 to 2010 were included. 702 patients were enrolled.

**Results:** Logistic regression model was used to determine predictors of VTE. Initially each factor was examined individually, and then predictors were entered into a full adjusted model. Tumour stage, chemotherapy, WCC, neutrophils, and lymphocytes, in addition to age and BMI emerged as potential predictors on individual analysis. Only BMI (OR=4.5), chemotherapy (OR=6.6) and high white cell counts (OR=2.2) showed statistically significant positive associations at p < 0.05. High neutrophils (OR=0.42) and lymphocytes (OR=0.36) showed a protective effect.

**Conclusions:** After the full adjusted analysis, the only risks of VTE remained significant (p < 0.05), were BMI > 30, chemotherapy and high white cell counts.

**P0897**

**COLPOSCOPIC EVALUATION OF VIA POSITIVE CASES IN CERVICAL CANCER SCREENING – STUDY IN A TERTIARY HOSPITAL IN BANGLADESH**

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**Objectives:** To find out the different grades of cervical intraepithelial neoplasia (CIN) by colposcopic evaluation of VIA positive cases and correlations with findings and histological report.

**Method:** These cross-sectional, analytical study is carried out among the patient attending the colposcopy clinic in the Comilla Medical College Hospital who were VIA positive during the period of Jan 2011–Dec 2011. Total 1929 women were screened by VIA in Comilla Medical College Hospital. 228 cases are VIA positive. All VIA positive cases are evaluated by colposcopy and then punch biopsy done, if colposcopy abnormal final diagnosis were made by histopathological examination and finally treatment were given under colposcopy.

**Results:** Of 1929 patient screened, total 228 cases were VIA positive (about 5.18%). All were evaluated by colposcopy. Out of 228, Colposcopically 71 cases were normal (31.14%), 8 cases had inflammatory lesion (3.51%) and 149 (65.35%) cases had CIN and invasive lesion. Colposcopy directed punch biopsy revealed positive lesion in 29 cases out of 149. 19 were normal (12.75%), 16 were inflammatory lesions (10.74%) and the rest 114 (76.51%) had CIN and invasive lesion.

**Conclusions:** So the study concluded that VIA and Colposcopy are the important methods in the evaluation of cervical malignancy. VIA may be an important tool for screening of cervical cancer in developing country as it is simple, easy to perform and cost effective. We can screen cervical cancer by VIA all over the country and thus reduce the morbidity and mortality.

**P0898**

**COMPARISON OF LBC, HPV DNA AND HPV E6/E7 mRNA IN ROUTINE CLINICAL PRACTICE: OUR INTERMEDIATE STUDY DATA AT THE TERTIARY CARE HOSPITAL**

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**Objectives:** HPV mRNA (OncoTect) is a quantitative assay that combines molecular in situ hybridization (FISH) with flow cytometry that targets the molecular alterations strictly associated to malignant transformation rather than simply detecting HR-HPV infections. It detects HPV oncogene (E6/E7) over-expressing messenger RNA (mRNA) that triggers the actual process of oncogenesis in the HPV infected cells. This study was done to evaluate the pick up rate for cervical abnormalities by LBC, HPV DNA (Digene Hybrid Capture 2 or HC2) and recently introduced HPV E6/E7 mRNA test at the outpatient department at Sir Ganga Ram Hospital, New Delhi.

**Method:** A cohort of 119 sexually active women between 21 to 70 years of age with 84% women in the age group of 30 to 55 years (mean...
Cervical cancer is the most common cancer among women in developing countries. According to WHO, 80% of cervical cancer deaths are from developing countries. It is the single largest killer of middle-aged women in India. An organized screening program can reduce incidence of cervical cancer and mortality by 80% as shown in European countries. The major problem is low participation in the screening programme in India, where less than five percent eligible women turn up for screening. Objectives of this study were to assess women’s awareness on cancer cervix, their screening practices and perceived barriers for non-participation in screening.

Method: A face to face semi-structured questionnaire based interview was conducted between January, 2014 to June 2014, among the participant women (18–65 years) with a fixed list of questions in a standard sequence. The interview was conducted in a private atmosphere in their preferred language which lasted for about 10–15 minutes. The questionnaire included questions regarding the participants’ socio-demographic characteristics, knowledge regarding cancer cervix, Pap smear and practice of Papsmear. Barriers to non-participation in screening were also assessed. The data were analyzed by computer software Instat Graph Pad version-3 and significance was decided at p-value 0.05.

Results: Over all, only 59.1% of the participants had ever heard of cervical cancer. Seventy percent women were not aware of any risk factors or symptoms of cervical cancer. Only 27.8% of the participants ever had heard of Pap smear. Seventy three percent participants were not aware of correct age of commencing Pap smear. Of the 252 participants only 7.1% (n=18) had ever undergone Pap smear test. Majority (92.9%) of the women had never undergone a Pap smear. The most common reasons offered were ignorance about Pap smear (77.4%), did not considering themselves at a risk (20.1%), fear of the procedure/bad result.

Conclusions: Knowledge of cancer cervix, screening and practice of Pap smear is poor among women from the Indian state of Sikkim. There is an urgent need for information on the airwaves and in print media and education at health centers and local health posts on cervical cancer and its screening. Targeted government programmes in India and other low-income countries would increase the level of awareness and practice of screening.

Objectives: To expand cervical cancer control in low and middle income settings, the International Planned Parenthood Federation, Marie Stopes International, Population Services International, and the Society for Family Health in Nigeria, Abuja, Nigeria; 2Stanford University School of Medicine, Stanford, California, USA

Method: In October 2014, a self-administered, online questionnaire was sent to representatives of each partner organization. Each organization was responsible for collating responses from country teams currently offering VIA and/or cryotherapy services. Respondents were asked to identify specific program-related barriers that limit the initiation or expansion of VIA and/or cryotherapy offered to women as part of a suite of RH services.

Results: Twenty-nine country programs responded to the questionnaire. The most commonly cited barriers to initial program start-up included lack of financial resources to purchase necessary equipment and supplies to conduct screening and treatment. Teams also cited the lack of qualified master trainers to conduct VIA and cryotherapy and train an initial cadre of providers. Barriers towards expansion were reported as financial (e.g., inadequate resources to purchase additional equipment) and insufficient numbers of locally trained providers to achieve national scale. Respondents underscored the need to effectively target women 30–49 years and those living with HIV to achieve maximum health impact.

Conclusions: As low- and middle-income countries continue to expand VIA-based screen and treat programs, our results underscore the need to dedicate both financial and human resources to start and scale-up these programs. While an emphasis on developing clinical skills to perform VIA and cryotherapy is critical to create and sustain a robust cadre of trained providers, program efforts must also prioritize strategies that effectively target women at higher risk of disease in order to achieve maximum health impact of cervical cancer control in these settings.

Objectives: Cervical cancer is the second most common cancer
among women worldwide. India contributes one-third of total cervical cancer mortality because few women have access to high quality preventive services. Screening methods using visual inspection with acetic acid (VIA) and cryotherapy for treatment are widely recognized and recommended by WHO as effective approaches to reduce cervical cancer incidence and mortality. Cervical cancer screening programs should strive to design and implement competency-based clinical training programs and ensure high-quality service delivery to achieve maximum health impact. We report on the implementation of a supportive supervision program in connection with cervical cancer prevention services.

**Method:** In June 2014, Population Services International (PSI), India launched a VIA-based cervical cancer prevention program in three districts of Uttar Pradesh, using a total of 76 private gynecologists. A three-day training curriculum was developed based on current internationally accepted guidelines and in line with Indian national guidelines. Training consisted of clinical skill building and patient education/counseling, including informed consent. A team of medical specialists conducted supportive supervision visits (SSV) to offer physicians on-the-job support for their initial screening visits. Checklists with critical steps outlined were developed to ensure quality service provision.

**Results:** A total of 76 physicians have been trained and received SSVs across the three districts in four training cohorts. A total of 8,018 clients have been screened between June 2014–February 2015, and a total of sixty-nine physicians (93%) have met PSI’s minimum quality standards with 74 supportive supervision visits. To date, three physicians have not met on technical competency, one for infection prevention practices and one for counseling. Action plans were initiated to improve clinical competency and service quality. Two providers are moving outside of the program catchment area and will not continue.

**Conclusions:** Focused attention to early capacity building among private providers can lead to provision of high quality services for women vulnerable to cervical cancer. Supportive supervision shortly after the initial training offers providers the chance to enhance and improve their clinical skills, including screening results and treatment, as well as their client interactions that include pre- and post-procedure counseling and education.

**P0902**

ENGAGING THE PRIVATE SECTOR TO SUPPORT SCALE-UP OF CERVICAL CANCER SCREENING AND PREVENTATIVE TREATMENT SERVICES IN UTTAR PRADESH, INDIA

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**Objectives:** Cervical cancer is a significant public health problem in India where it ranks second only to breast cancer in terms of mortality amongst female cancers. To date, there have been sporadic efforts to offer cervical cancer screening, but existing programs have not yet reached wide scale coverage among women. India lacks the necessary dedicated infrastructure and human resources required to effectively sustain cytology-based screening programs. While visual inspection with acetic acid (VIA) coupled with cryotherapy are now recognized as recommended screening approaches, they have yet not been implemented at scale in India.

**Method:** In 2014, Population Services International (PSI) launched a VIA-based “screen and treat” pilot program among women 30–59 years in three districts of Uttar Pradesh. A total of 76 private providers underwent an initial three-day competency-based course on VIA and cryotherapy. PSI also trained gynecologists at tertiary care district hospitals to manage advanced cases. Trained community health workers mobilized eligible women from the surrounding communities to access services in three models – in-clinic patients and women attendants, weekly fixed days and community screening camps. Women undergo an informed consent process where they are counselled before and after the screening procedure.

**Results:** Between July 2014–February 2015, 8,018 women were screened, of which 8% were VIA-positive. Among them, 399 (62%) underwent cryotherapy. Treatment rates were 48% in Kanpur, 56% in Lucknow, and 84% in Varanasi, respectively. Eleven cases were referred for advanced treatment. Challenges encountered include lack of obvious clinical indications, lack of services for co-morbidities and lack of finances. Factors responsible for the gap in treatment of VIA-positive cases include financial barriers for women, lack of decision making power to undergo treatment without consent from family members, lack of facilities for cryotherapy and difficulty in tracking women from distant places.

**Conclusions:** Initial data from the indicate that VIA positivity rates are comparable with published studies from India and other settings. A question that emerges from the preliminary data is how to scale-up the screen-and-treat program while ensuring treatment of VIA-positive cases. From a business perspective, private providers may see little potential for revenue in the current model of the screen and treat approach. An integrated service delivery model including comprehensive screening, treatment and referral services for several co-morbidities such as anemia, undernutrition, diabetes, hypertension including breast and cervical cancer is being considered for implementation under a public-private partnership model.

**P0903**

PREVALENCE OF ABNORMAL PAP SMEARS IN ANTENATAL WOMEN IN INDIA & EFFECT OF SAMPLING DEVICE ON SMEAR ADEQUACY RATE

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**Objectives:** To determine the prevalence of abnormal PAP smears in our antenatal women and to know the ideal sampling device for taking a PAP Smear.

**Method:** Women attending the antenatal clinic with gestation of $<\text{28}$ weeks were recruited after an informed consent and randomly allocated into 4 groups: group 1, Ayre spatula alone, group 2 both spatula & cytobrush were used, group 3 a broom type of cytobrush both was used & in group 4 cytobrush was used alone. The comfort level during smear taking & any problems noted were recorded using a pain score. The smears were stained using the PAP stain, were categorized as adequate or inadequate & classified as per Bethesda classification.

**Results:** We had 150 women participating, the mean age was 24.2 yrs, the mean period of gestation was 17 weeks; 43.9% were nulliparous. Smear adequacy rate was 84.3% with spatula, 61.5% with combined spatula & cytobrush, 60.5% with the broom sampler and 80% with cytobrush alone. Pain during procedure was reported in 2.9% of women, 18.3% had minor discomfort; 78.6% were comfortable. Minor bleeding during smear taking was noted in 15%; this was more with the cytobrush & broom than the Ayre spatula alone. Abnormal smears were seen in three women; 2 had AGC & one had LSIL.

**Conclusions:** Opportunistic cervical screening during pregnancy is safe and well tolerated. Abnormal Cervical smears were seen in 2% of our pregnant women. The standard Ayre spatula should be the preferred sampling device.
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Objectives: 1) To detect the presence of vulvovaginal & cervical lesions in symptomatic & asymptomatic women by Cytology, Colposcopy & Histopathology.

2) To establish if any association exists between vulvovaginal & cervical pathology.

3) To determine the presence of subclinical papilloma infection by HPV DNA analysis in symptomatic & asymptomatic group.

Method: Colposcopy & HPV PCR both have high sensitivity & specificity in all three sites vulva vagina cervix as compared to colposcopy which is least beneficial test HPV PCR detects subclinical cases often missed indicating towards its future role as a primary screening modality for detection of premalignant and malignant lesions of vulva vagina & cervix. There is an association between vulvovaginal abnormalities with cervical pathology & vice-a-versa. Entire lower genital tract of women with persistent vulvovaginal complaints should be screened and keep in scrutiny for follow up as they are the potential candidates for vulvovaginal malignancies.

Results: In vulva abnormality detected in 9 on inspection, 8 on cytology, 18 on colposcopy. In vagina abnormality detected in 2 on inspection, 7 on cytology, 7 on colposcopy. In cervix abnormality detected in 24 on inspection, 10 on cytology, 26 on colposcopy. Total 22 vulva 7 vaginal & 28 cervical biopsy taken and 18 vulval, 7 vaginal & 15 were confirmed. Asymptomatic group also had underlying lesions. Sensitivity, specificity of cytology 33.3%, 97.5% in vulva, 57.14%, 96.8% in vagina 60%, 98.79% in cervix, of colposcopy 88.9%, 97.56% in vulva, 85.7%, 97.8% in vagina 93.3%, 85.4% in cervix & of HPV test 50%, 96.4% in vulva, 100%, 93.5% in vagina 80%, 89.5% in cervix respectively.

Conclusions: Colposcopy & HPV PCR both have high sensitivity & specificity in all three sites vulva vagina cervix as compared to cytology which is least beneficial test HPV PCR detects subclinical cases often missed indicating towards its future role as a primary screening modality for detection of premalignant and malignant lesions of vulva vagina & cervix. There is an association between vulvovaginal abnormalities with cervical pathology & vice-a-versa. Entire lower genital tract of women with persistent vulvovaginal complaints should be screened and keep in scrutiny for follow up as they are the potential candidates for vulvovaginal malignancies.

P0905
HUMAN PAPILLOMA VIRUS SEROPREVALENCE AND CERVICAL CYTOLOGY CORRELATES OF WOMEN PRESENTING TO THE REPRODUCTIVE HEALTH CLINIC
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Objectives: To determine some socio-demographic variables and risk factors of the participants. To determine any correlation between the HPV seroprevalence and cervical cytology of the participants.

Method: Ethical approval for the study was obtained and 150 consecutive consenting women presenting at the Reproductive Health Clinic of the Ahmadu Bello University Teaching Hospital, Zaria, Nigeria had Pap smear and blood samples taken for HPV ELISA test. A questionnaire was also completed by each of the participants. Data was analyzed using SPSS version 20.

Results: Only 10 (15%) were less than 30 years old. Majority 121 (80.4%) had some form of western education. The mean age at coitarche was 20.98±4.23. Most of the women 83 (55.3%) had parity above 4. None of the women had ever smoked. The HPV prevalence was 43.3%. Only 22 (42.3%) of the 52 women with abnormal cytology, were HPV positive (P=0.427).

Conclusions: The health seeking behavior of younger women <30 years where screening would have been most helpful to pick pre-malignant disease was low as only 10 (15%) were available for screening. The Pap smear picked up more abnormal cytology compared to the HPV screening.
Objectives: The purpose of this work was to explore the knowledge, attitudes, and beliefs regarding the gynecologic cancer screening on Ecuadorian women users of primary care facilities. To analyze how their perceptions are related with their demand and participation on those programs.

Method: The research design was exploratory and qualitative. Nine focus groups and four in depth interviews were conducted for data collection. The total number of participants was 81 women between ages of 18 to 65 years old. All interviews were tape recorded and transcribed for analysis. Data was extracted and classified by categories. A narrative content analysis of the results was conducted.

Results: All women related knowing about gynecological cancer screening, however most women’s knowledge was confused. The most frequent misconceptions related to the pap smear were: the belief that it could be useful for detecting pregnancy, ovarian cysts or infections. Most of the participants stated that the pap smear procedure is a traumatic and painful experience. In relation to the routine breast examination many women think that self-examination consist in a preventive massage. According to them mammography is not for screening but for confirming or ruling out breast cancer diagnosis and this procedure by itself may cause cancer.

Conclusions: Primary health care programs need to emphasize on the importance of the gynecological cancer screening; greater efforts are needed to inform and educate women; It is important to encourage health practitioners target aspects of perceived susceptibility among their patients and to avoid an authoritarian behavior that often results in abandonment or passive behavior of their patients.
**P0910**

**TENDENCY TO BREAST RECONSTRUCTION AFTER BREAST MASTECTOMY AMONG IRANIAN WOMEN WITH BREAST CANCER**

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**Objectives:** The aim of our study is to evaluate the rate of tendency to breast reconstruction surgery among women with breast cancer who had mastectomy but did not reconstruction surgery and assess associated factors that effect on their decision.

**Method:** This cross sectional study was conducted in Mashhad, north east of Iran during 2013. 108 consecutive patients with breast cancer after mastectomy were completed the valid and reliable questionnaire about their attitude towards breast reconstruction surgery and associated factors. Demographic data and 21 items of questionnaire were compared between patients with tendency to breast reconstruction and who did not.

**Results:** 62 patients had a tendency to breast reconstruction and 46 (42.6%) of them had not. the most of the participants (45%) believe that breast reconstruction would improve their appearance the following items on their decision was significantly different between two groups. Impact of breast reconstruction on appearance and beauty (P < 0.001), mood (P=0.001), Family living conditions (P<0.001) and their opinion (P<0.001). Lack of sufficient information (p=0.01), Physician's opinion (p<0.001) and Priority of Cancer Breast Treatment (p=0.02).

**Conclusions:** More than half of the patients have a tendency to breast reconstruction surgery although they did not it yet. Identify the factors that can increase the tendency and factors that help to change the intention to action are important and should be investigated in future research.

**P0911**

**A LITERATURE REVIEW ON EXERCISE AS A PREVENTION OF FATIGUE IN CANCER PATIENTS**

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**Objectives:** Cancer-related fatigue is a disabling and distressing symptom present throughout the cancer trajectory from the time of diagnosis is until the end of life. In recent years, an increasing number of evidences show that both exercise and physical activity could be safe and beneficial to the people with cancer. Exercise not only prevents and controls cancer but also it helps in improving physical function, cardio respiratory fitness, quality of life and reduces cancer-related fatigue. This study aimed to identify evidence in the scientific literature related to the use of exercise to prevent fatigue in patients diagnosed with cancer.

**Method:** We performed a search of publications indexed in electronic databases: Cochrane Library, PubMed/Medline, Cinahl, EBSCO Host. Selected literatures were randomized controlled trials published from 2010 to 2015 and contained all the following key words: cancer, fatigue, exercise, and cancer related fatigue. After completion of database searches, a final total of 44 studies published in English were identified that fitted the inclusion criteria.

**Results:** Studies have shown that majority of patients go on a walk as exercise. The large number of studies suggested that exercise had a moderate effect in reducing some symptoms such as fatigue, depression, and sleep disturbance. The effect of exercise on fatigue seemed to differ by the type of cancer, and patients with solid tumors benefit the most from exercise.

**Conclusions:** Cancer-related fatigue along with the burden of the side effects can lead to a reduction in functional ability. According to the results, the exercise is effective in the management of cancer-related fatigue. However, further studies on the subject, with strong research designs, are extremely important to evaluate the effect of new interventions and strengthen the role of oncology nursing based on scientific evidence.

**Reproductive Endocrinology**

**P0912**

**CONGENITAL ADRENAL HYPERPLASIA AND INFERTILITY: A CASE REPORT**

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**Objectives:** Analyze the most important points in the diagnosis, treatment and involvement of HSC in fertility.

**Method:** Couple with 3.5 years primary sterility. Female 34 years, mild hirsutism, BMI 30. Hormonal determinations, ultrasound and HSG were normal. Severe male factor due to Leydig tumor cells. After two ICSI cycles without response and progesterone unusually high levels, we studied adrenal axis that shows high 17-OH progesterone basal levels and after short ACTH stimulation. Gene mutation study: Non classical 21-hydroxylase deficiency and classical carrier. Negative male.

After corticosteroid therapy progesterone was normalized and after two ICSI cycles BHCG was positive.

**Results:** Ultrasound control showed Dichorionic-diamniotic twin pregnancy with abortion of a fetus in 9 weeks of pregnancy. Endocrinology corticosteroid therapy continued throughout gestation despite male phenotype. At 41+3 weeks of pregnancy we obtained a stillbirth after cesarean delivery without complications.

**Conclusions:** 21-hydroxylase deficiency courses with hormonal alterations that can diminish fertility. In severe forms, produces virilization hyperandrogenism and menstrual disorders. A correct diagnosis is important for the stimulation cycle management. The study of carriers and their partners avoids extreme forms in the offspring.

**P0913**

**EFFECT OF LEPTINE ON ESTRADIOL SECRETION BY HUMAN GRANULOSA CELLS IN CULTURE**

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**Objectives:** The objective of our study is to investigate the effect of leptin on estradiol (E2) production by Granulosa cells (GC) in culture.

**Method:** GC was obtained from twenty three women undergoing IVF treatment. Part of cumulus surrounding cumulus-oocyte complex was aspirated with a Pasteur pipette and then centrifuged at 400g for 10 min. Patients were allocated into two groups according to the body mass index. GC was cultured in serum free conditions for 48 hours in the absence or presence of different concentration of leptin (1, 10 and 100 ng/mL). At 48 hours of the culture, estradiol concentration was measured in culture supernatant by radio immunoassay.

**Results:** At the dose of 1 and 10 ng/mL leptin stimulated, whereas at the dose of 100 ng/mL significantly suppressed E2 production with respectively (16775, 15265 and 5315 pg/mL) compared to the control.
(16445 pg/ml). E2 production by CG in Obese women is significantly lower, without and with addition of leptin, compared with normal weight women.

Conclusions: These results demonstrate that high leptin concentrations (100 ng/ml) in ovary suppress E2 secretion and may interfere with the follicles development and oocyte maturation.

P0914
BLEPHAROPHIMOSIS PTOSIS EPICANTHUS-INVERSUS SYNDROME (BPES) – A RARE CAUSE OF PRIMARY OVARIAN INSUFFICIENCY, STUDY OF TWO CASES

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Objectives: To study Blepharophimosis ptosis epicanthus-inversus syndrome (BPES) as a cause of primary infertility and secondary amenorrhoea.

Method: Study of two cases presented in Gynaecology OPD of AIIMS Rishikesh was done.

Case reports: Case 1: 35 years old lady. Case 2: 28 years old lady. Both presented with primary infertility and secondary amenorrhoea.

On examination both patients had bilaterally shortened horizontal palpebral fissure (blepharophimosis), severe impairment of the superior palpebral levator function (ptosis), vertical skin fold arising from the lower eyelid, which inserts medially in the upper lid (epicanthus inversus), increased inner canthal distance with a normal outer canthal distance (telecanthus) which formed Blepharophimosis ptosis epicanthus-inversus syndrome (BPES).

Serum FSH was more than 40 mIU/ml on two occasions in both patients suggesting primary ovarian insufficiency. Both patients were diagnosed as BPES type I.

Conclusions: Amenorrhoea can be a presenting symptom of various rare syndromes. BPES is a condition that mainly affects development of eyelids. Because of these eyelid abnormalities eyelids cannot be opened fully. There are two types of BPES. Both types I II include the eyelid malformations and other facial features. Type I is also associated with an early primary ovarian insufficiency in women, which causes oligomenorrhoea and eventually amenorrhoea before age 40. Primary ovarian insufficiency can lead to subfertility or infertility. Cases can be detected at an early age because of the obvious visible features and oocyte preservation can be offered at the earliest.

P0915
REVERSING THE REDUCED LEVEL OF ENDOMETRIAL GLUT4 EXPRESSION IN POLYCYSTIC OVARY SYNDROME: A MECHANISTIC STUDY OF METFORMIN ACTION

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Objectives: Conflicting results have been reported regarding whether or not insulin-regulated glucose transporter 4 (GLUT4) is expressed in human and rodent endometria. There is an inverse relationship between androgen levels and insulin-dependent glucose metabolism in women. Hyperandrogenemia, hyperinsulinemia, and insulin resistance are believed to contribute to endometrial abnormalities in women with polycystic ovary syndrome (PCOS). However, it has been unclear in previous studies if endometrial GLUT4 expression is regulated by androgen-dependent androgen receptors (ARs) and/or the insulin receptor/Akt/mTOR signaling network.

Method: We have used endometrial tissue from PCOS patients and the 5α-dihydrotestosterone (DHT)-induced PCOS-like rat model in vivo and in vitro. Western blot and immunofluorescence assays were used.

Results: We demonstrate that GLUT4 is expressed in normal endometrial cells and is down-regulated under conditions of hyperandrogenemia in tissues from PCOS patients and in a 5α-dihydrotestosterone-induced PCOS-like rat model. Reduced endometrial GLUT4 expression and increased AR expression in PCOS patients. Using a human tissue culture system, we investigated the molecular basis by which GLUT4 regulation in endometrial hyperplasia tissues is affected by metformin in PCOS patients. We show that specific endogenous organic cation transporter isoforms are regulated by metformin, and metformin induces GLUT4 expression and inhibits AR expression and blocks insulin receptor/Akt/mTOR signaling in the same hyperplasia human tissues.

Conclusions: Our findings indicate that changes in endometrial GLUT4 expression in PCOS patients involve the androgen-dependent alteration of AR expression and changes in the insulin receptor/Akt/mTOR signaling network.

P0916
MICRONUCLEUS TEST EVALUATION IN WOMEN WITH POLYCYSTIC OVARY SYNDROME (PCOS)

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Objectives: PCOS is a complex multifactorial disorder related to insulin resistance and others metabolic disorders. It's known that over expression of genes SRD1A1 (5p15.32) and SRD1A2 (2p23.2) related do androgen biosynthesis, are involved in PCOS. The correlation between PCOS and metabolic changes could be explained by genetic modifications at 19p13.2. Metabolic changes demand oxidative stress, providing high genotoxicity potential. Micronucleus (MN) test can detect fragments of acentric chromosome separated from the whole nucleus. We aimed to determine the frequency of MN and other nuclear abnormalities in PCOS women.

Method: Buccal cells of 19 PCOS patients diagnosed by NIH criteria (classic phenotype) and 19 women (control group) were collected and prepared according to Thomas et al. (2009) protocol. The analysis of nuclear alteration followed Bolognesi et al. (2013) recommendations. Statistical analysis were performed using G Cochran, chi-square, fisher exact and Mann-Witney tests (p < 0.005). The relationship between increased genotoxicity and repair index were measured according to Ramirez & Saldanha (2002).

Results: We observed the frequency of basal and differentiated cells (cell proliferation markers), micronuclei, and other cytological aspects as binucleated cells (both are genotoxicity markers). We also observed karyorrhexis and karyolyis (wich are cell death markers) in both groups. The frequency of MN was found statistically significant higher in the PCOS group (18/19) than control group (10/19). Rates of DNA repair and proliferation was lower in PCOS group compared to control.

Conclusions: The MN test has a rapid, inexpensive and easily performing in cytogenetics laboratories. Our PCOS group had more nuclear changes and statistical analysis showed lower proliferation and repair indexes, an evidence of genotoxicity and citotoxicity. Our results suggest that in PCOS the elevated oxidative stress have clastogenic and aneugenic effects caused by excessive oxygen reactive species formation.
**P0917**
**EFFECTS OF MYOINOSITOL ON CLINICAL, HORMONAL & METABOLIC PARAMETERS OF PCOS IN COMPARISON TO METFORMIN**

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**Objectives:** To assess the efficacy of myoinositol in improving clinical, hormonal and metabolic parameters in Polycystic Ovary Syndrome (PCOS) compared to metformin.

**Method:** This randomized controlled trial was conducted after approval from Institute’s ethics committee. Total 50 women of PCOS as diagnosed by Rotterdam’s 2003 criteria after excluding other endo-obliteral disorders; were randomized into 2 groups, Group I (n=25) received myoinositol 1gm twice daily orally and group II (n=25) received oral sustained release metformin 850mg twice daily for 6 months. Patients were followed up at 3, 6 months during therapy & at 9 months i.e. 3 months post-therapy, clinical parameters (cyclic, hirsutism, acne), hormonal profile (LH, FSH, LH/FSH, testosterone, SHBG) and metabolic parameters (Blood sugar, insulin, HOMA-IR, lipid profile) were assessed at baseline & follow ups.

**Results:** Cycle length was 64±12 & 68±11 days with 5.8 & 5.6 menses/year; improved to 48±6 & 56±10, 34±7 & 45±8 and 30±3 & 38±7 (p<0.001) at 3, 6 & 9 months; Cyclecplied to 4.7 & 4.2 per 6 months. At 9 months, 23 (92%) and 7 (28%) patients had regular cycles (p=0.004); Acne and hirsutism reduced by 32.2% & 25% and by 31.9% & 26.5% in group-I & II respectively. LH/FSH improved by 12% (p<0.05) and 1.5% (p<0.02); SHBG improved by 43.9% and 45.5% (p<0.00); HOMA-IR improved by 27.3% & 26.3% (0.002), in group-I & II respectively. Lipid parameters improved in both groups. Minor gastrointestinal side-effects persisted in 36% upto 6 months in group-II.

**Conclusions:** Myoinositol is as effective as metformin in improving the symptoms of PCOS but better persistence of menstrual cyclicity after stopping therapy is seen with myoinositol. Better improvement in LH/FSH ratio is also seen with myoinositol as it has lesser gastrointestinal-side effects. It can be a good option for PCOS patients.

**P0918**
**MAY HYALURONIC ACID BE LOWER IN THE ENDOMETRIUM OF POLYCYSTIC OVARY SYNDROME?**

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**Objectives:** To compare the hyaluronic acid and its enzymes of syntheses (HAS1, HAS2 and HAS3) amount in the endometrium of patients with polycystic ovary syndrome to women with regular cycle.

**Method:** A total of 20 endometrial samples from 10 patients with PCOS and 10 women with regular menstrual cycles during the proliferative phase. The range age was between 20 and 35 years and all volunteers were evaluated at Divisão da Clínica Ginecológica do Departamento de Obstetrícia e Ginecologia do Hospital das Clínicas da FMUSP (HC-USP). Profile determination and concentration of hyaluronic acid was performed by biochemical method of fluorimetric assay (ELISA-like). Its location in endometrial tissue as well as dosage of enzymes syntheses were done by immunohistochemistry and western blotting. Student t test was used (p<0.05).

**Results:** A higher concentration of hyaluronic acid in eumenorrheic women endometrium compared to polycystic ovary syndrome during the proliferative phase of menstrual cycle. There were a higher HAS1 and HAS2 reactivity and a lower HAS3 reactivity in the PCOS endometrium compared to women with regular menstrual cycles in the proliferative phase.

**Conclusions:** Our data suggest that PCOS patients have a deficit of hyaluronic acid in the endometrium during proliferative phase.

**P0919**
**SMALL LUCINE-RICH PROTEOGLYCAN CHANGES IN THE ENDOMETRIUM OF POLYCYSTIC OVARY SYNDROME**

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**Objectives:** To compare the small leucine-rich proteoglycan amount in the endometrium of polycystic ovary syndrome patients to women with regular cycle.

**Method:** A total of 20 endometrial samples from 10 patients with PCOS and 10 women with regular menstrual cycles during the proliferative phase. The range age was between 20 and 35 years and all volunteers were evaluated at Divisão da Clinica Ginecológica do Departamento de Obstetrícia e Ginecologia do Hospital das Clínicas da FMUSP (HC-USP). Profile determination and concentration of small leucine-rich proteoglycans (decorin, lumican, fibromodulin and biglycan) were performed by biochemical method of fluorimetric assay (ELISA-like) and western blotting. Student t test was used (p<0.05).

**Results:** Decorin and lumican showed higher immunoreactivity in PCOS endometrium when compared to one of women with regular menstrual cycle.

**Conclusions:** Our data suggest that PCOS patients have a large amount of small leucine-rich proteoglycan, specially the decorin and lumican concentration in the endometrium during proliferative phase.

**P0920**
**DOES MELATONIN IMPROVE THE ANGIOGENESIS OF LUTEAL-GRANULOSA CELLS OF WOMEN UNDERGOING IN VITRO FERTILIZATION TREATMENT?**

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**Objectives:** To analyze the melatonin effect on the angiogenesis process on the luteal granulosa cells of women undergoing in vitro fertilization treatment.

**Method:** We included 68 patients undergoing in vitro fertilization treatment. After the retrieval procedures, the luteal granulose cells were removed and prepared to cell cultures. The cells were divided into four groups: a) vehicle; b) 0.1 uM melatonin; c) 1 uM melatonin; d) 10 uM melatonin. After three days the cells were scratched and prepared to RNA analysis. The 96 gene microarray were performed to analyze the angiogenesis.

**Results:** The overexpressed genes were AKT1, ANGPT2, ANGPT4, EGF, MDK, PGK1, TIMP2 and VEGFA (> 3 fold) after 1 uM and 10 melatonin treatment. The results were confirmed by PCR-RT.

**Conclusions:** Our data suggested that melatonin may improve the angiogenesis of luteal granulose cells.
P0921
DIFFERENCES IN THE EXPRESSION OF STEM CELL-RELATED GENES BETWEEN THE ENDOMETRIUM AND ENDOMETRIOTIC LESIONS
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Objectives: To compare the expression of stem cell-related genes in the endometrium (END), superficial endometriosis (SE), and deep infiltrating endometriosis (DIE).

Method: We performed a prospective pilot study of six women suffering from SE and DIE who gave consent for laparoscopy surgery, endometrial biopsies, and participation in this study. Quantitative RT-PCR analysis of 84 stem cell-related genes was performed in 18 biopsy samples.

Results: A total of 40 of 84 genes were expressed in SE and DIE, but were different from END as follows. Seven genes were overexpressed in SE and 33 genes were underexpressed in DIE compared with END. Two genes were only overexpressed in SE and three genes were only underexpressed in DIE. Six underexpressed genes were exclusively located in SE and one was only located in DIE. The remaining 31 genes were not different among the groups. There was no significant difference in gene expression between SE and DIE samples.

Conclusions: Tissue of deep and superficial endometriosis appears to have similar stem cell-related genes. Nevertheless, there are some differences in gene expression between SE and DIE that require further validation regarding development of endometriosis.

P0922
SYSTEMATIC REVIEW OF FINASTERIDE EFFECT ON WOMEN WITH HIRSUTISM
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Objectives: To evaluate the efficacy and safety of finasteride treatment on the cutaneous hyperandrogenism of women through systematic review.

Method: A systematic review of the MEDLINE and Cochrane databases, covering the 1990 to January 2015 period of time. Selection criteria: Inclusion: randomized clinical trials of efficacy and safety of finasteride women with Polycystic Ovarian Syndrome (PCOS) or Idiopathic Hirsutism through clinical evaluation using the Ferriman–Gallwey score. Exclusion criteria: other causes of hirsutism, such as congenital adrenal hyperplasia; Ovarian or Adrenal tumor, Cushing Syndrome, Hyperprolactinemia, Thyroid disfunction and use of anabolizant, herbal or GnRH analogues. Data Collection and Analayis: The keywords used: “hirsutism” AND “finasteride”.

Results: The results showed that finasteride is effective and safe agent after six months of the treatment compared to placebo (n=5) and other drugs (n=6). Also, the finasteride associated to other drugs presented more benefits than alone. Adverse effects associated with the use of finasteride are more common dry skin, decreased libido, headache, gastrointestinal changes, feeling of swelling and allergic symptoms. These effects are mild or absent in 43% of studies (n=7). Nine other studies have reported that these are moderate and one study reported had lost follow-up due to adverse reactions finasteride.

Conclusions: Our data suggest that finasteride is beneficial and safety for hirsutism treatment of patients with PCOS or idiopathic hirsutism.

P0923
HOW DOES OVERWEIGHT INFLUENCE THE CLINICAL, HORMONAL AND METABOLIC PARAMETERS AND CARDIOVASCULAR RISK OF BRAZILIAN WOMEN WITH POLYCYSTIC OVARY SYNDROME?
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Objectives: To evaluate the impact of the overweight on the clinical, hormonal and metabolic features of Brazilian PCOS.

Method: This is a retrospective study from 1993 through 2007. We included 242 patients with polycystic ovary syndrome (PCOS). Patients were classified according to their body mass index (BMI) into normal (<25), overweight (25–29.9), obese (>30). The following features were compared among the groups: a) clinical – menstrual pattern, hirsutism, androgenic acne; b) hormonal – FSH, LH, estradiol (E2), testosterone (T), androstenedione (A), 17 OH-progesterone, SDHEA and LH/FSH ratio; c) metabolic – fasting plasma glucose (OG), glucose tolerance (G120), fasting plasma insulin (OI), HDL-C, triglycerides (TG) and SHBG; d) insulin sensitivity tests.

Results: The total and free testosterone of obese group was superior to one of lean group, but the LH and SHBG of obese group was inferior to lean group (LG). The values of total and free testosterone of overweight group were higher than ones of LG. The fasting insulin and HOMA of overweight group was similar to LG. The values of waist circumference and systemic blood pressure of lean and obese groups were the lowest and the highest, respectively. The overweight had an intermediate behavior of those parameters.

Conclusions: Our data suggest that the androgen profile of overweight women were higher than one of lean women. The glucose metabolism of overweight is similar to lean women and lower than one of obese patients.

P0924
CHANGE IN MYELOPEROXIDASE INDEX IN POLYMORPHONUCLEAR NEUTROPHILS DURING THE NORMAL MENSTRUAL CYCLE
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Objectives: The physiology of reproduction is influenced by inflammatory reactions. Myeloperoxidase is present in high concentrations in neutrophils and can be measured using the myeloperoxidase index (MPXI). The purpose of this study is to investigate whether MPXI changes during the normal menstrual cycle.

Method: The present study investigated MPXI-changes in 81 menstrual cycles between Jan. 2012 and Dec. 2014 at Kanazawa Medical University, Japan. Eligible women were below 40 years old with non-inflammatory conditions. 1) We analyzed the difference in the amount of MPXI between normal menstrual cycles and amenorrheic women. 2) Normal menstrual cycles were divided into early follicular, late follicular, ovulatory, and luteal phase based on serum hormonal levels and day of menstrual cycle. MPXI-changes of the normal menstrual cycles versus the amenorrheic women were examined. A t-test and one-way ANOVA, followed by a Games–Howell test, were used for statistical analysis.

Results: 1) There was a significant difference in the amount of MPXI between the normal menstrual cycles and the amenorrheic women.
(4.269±0.387 [mean ± SE], 74 cycles versus -3.614±2.332, 7 cycles, P<0.001, t-test). In the late follicular phase, MPXI significantly increased versus the amenorheic women (6.429±1.115, 7 cycles, P=0.025, 95% CI of the difference [lower–upper]: 1.267–18.819). In the luteal phase, MPXI also significantly increased versus the amenorheic women (5.160±0.708, 10 cycles, P=0.048, 95% CI of the difference: 0.096–17.453).

Conclusions: This study revealed changes in MPXI during the normal menstrual cycles. Changes in MPXI suggest that neurotrophin function may be essential for the healthy cycle and that neurotrophils play an important role in female reproductive events.

**P0925**

**SCAFFOLD-BASED DELIVERY OF ADIPOSE TISSUE-DERIVED STEM CELLS IN RAT CRYOPRESERVED OVARIAN GRAFTS**

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**Objectives:** To evaluate rat cryopreserved ovarian graft treated with scaffold-based delivery of adipose tissue-derived stem cells (ASCs).

**Method:** Fifteen 12-week-old adult female Wistar rats were use. Two sets of study were performed. The in vitro-set evaluated cell viability in the acellular matrix Gelfoam at different times of co-culture (after 24, 48, 72, 96 and 120 h). The in vivo-set, the frozen-thawed ovarian grafts were treated with ASCs delivery in Gelfoam scaffolds, immediately after an autologous retroperitoneal transplant (ASC-GF, n=9). Controls received Gelfoam with culture medium (GF, n=6). Assessment of graft quality was conducted by vaginal smears, follicular density and viability, immunohistochemical stainings for vascular network, apoptosis, cell proliferation and VEGF-A expression.

**Results:** Cells remained viable in Gelfoam for up to 120 hours of culture, although there was a significant reduction in 24h and 48h (p<0.05). Grafts morphology was similar among groups. ASC therapy promoted earlier resumption of the estrous phase (GF 16.6±3 vs. ASC-GF 12.8±1.3 days, p<0.05) without interfering with the quantity and viability of ovarian follicles, endometrial cells, VEGF immunostaining, apoptosis or cell proliferation (p>0.05).

**Conclusions:** ASC therapy based on scaffold base-delivery strategy induces an earlier resumption of the estrous phase in frozen-thawed ovarian grafts, without leading to angiogenesis, apoptosis or cellular proliferation.
samples were collected for hormone measurements. The uterus was processed for immunohistochemistry and gene expression by RT-qPCR. The results were subjected to statistical test (p < 0.05).

**Results:** Gene expression and immunolocalization showed increase of the biglycan in non pregnant HPrl compared to non pregnant Ctr, p < 0.05, and decrease pregnant HPrl compared to pregnant Ctr, p < 0.05. Gene expression of the decorin, lumican and fibromodulin showed decrease in non pregnant/pregnant HPrl compared to non pregnant/pregnant Ctr, p < 0.05. Serum prolactin levels were higher in all the groups, while the levels of estradiol and progesterone were lower only in non pregnant group compared to non pregnant group.

**Conclusions:** Our data suggest that the state of hyperprolactinemia changed differently the gene expression and the immunolocalization of the small leucine-rich proteoglycans (SLRPs) in the extracellular matrix of the endometrium of pregnant and non pregnant. That fact could lead to a failure in embryo implantation.

**P0929**

**MAY POLYMORPHISMS OF THE MTNR1B MELATONIN GENE RECEPTOR INTERFERE WITH CARBOHYDRATE METABOLISM IN YOUNG WOMEN WITH POLYCYSTIC OVARY SYNDROME?**

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**Objectives:** Our aim was to identify four polymorphisms of the MTNR1B gene – rs10830963C/G; rs12804291C/T; rs3781638A/C; rs1387153C/T – in young women with PCOS, correlating them with carbohydrate metabolism.

**Method:** Cross-sectional study with 106 ambulatory patients under 24 years of age who had PCOS by the Rotterdam criteria. Assessments were made of body mass index, fasting and after 2 hours of oral charge of 75g of glucose glycemia and insulinemia. Genetic sequencing was performed.

**Results:** The presence of rs10830963C/G was associated with higher levels of fasting glucose and 2 hours after oral charge insulin and that of rs3781638A/C, with higher levels of insulin 2 hours after oral charge. No differences were found in the other parameters or for rs12804291C/T and rs1387153C/T.

**Conclusions:** Young women with PCOS and the rs10830963C/G or rs3781638A/C polymorphism may have greater disturbances of carbohydrate metabolism, thus putting them at a higher risk of developing insulin resistance and even type 2 diabetes.

**P0930**

**INCREASED RISK OF PSYCHIATRIC PROBLEM IN PCOS WOMEN OF SOUTHWEST CHINA**

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**Objectives:** Polycystic Ovary Syndrome (PCOS) and its characteristic symptoms have been bothering reproductive aged women. PCOS women usually suffer from acne, hirsutism, obesity, abnormal menstruation, and infertility that affect negatively on their mental health, even as depression and anxiety psychological problems. In this study, we survey the psychological state and HRQoL in PCOS women.

**Method:** We collected outpatients PCOS women (diagnosed according to Rotterdam criteria) of our hospital during Oct 2013 to Oct. 2014; and age matched health women as controls were recruited to complete the following items. A total of 120 PCOS patients and 100 controls completed this survey. The general mental health (General Health Questionnaire-12-item version, GHQ-12), anxiety (State Trait Anxiety Inventory STAI), depression (Beck Depression Inventory, BDI), both depression and anxiety (Hospital Anxiety and Depression Scale and General Health Questionnaire, HADS), and Health-Related Quality of Life (HRQoL) by 36-item Short-Form health survey (SF-36) were used in this survey. All the data were analyzed by SPSS 17.0.

**Results:** The prevalence of anxiety (17% vs 2%) and depression (27.5% vs 3%) in PCOS women were higher than controls (P < 0.001). PCOS women had poorer health related quality of life than controls (mean score of 496.7±135.1 vs 572.4±157.7, P < 0.001). In PCOS patients with fertile demand, they have more likely anxious and depressed than those no child demand.

**Conclusions:** PCOS patients are more likely to be depression and anxiety than healthy women, especially in those with fertile demand. We should pay more psychological concern during treatment of PCOS.

**P0932**

**SYSTEMATIC REVIEW OF INSULIN RECEPTOR SIGNALING IN THE ENDOMETRIUM OF WOMEN WITH POLYCYSTIC OVARY SYNDROME**

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**Objectives:** To systematic review the insulin receptor signaling in the endometrium of patients with polycystic ovary syndrome (PCOS) during proliferative phase.

**Method:** The keywords used were: polycystic ovary syndrome or Stein Leventhal syndrome or anovulation and endometrium or endometria. The criteria of inclusion were: human studies and studies that evaluated insulin receptor in endometrium of patients with PCOS. The criteria of exclusion were: review studies and animal models. We used the Prisma criteria.
Results: Using the aforementioned keywords, we found 467 articles. After carefully reading titles and summaries and applying the inclusion and exclusion criteria, we excluded 460 manuscripts (incomplete revisions, experimental studies, secondary outcome of studies, letters to the editor). We included seven manuscripts. The manuscripts showed that there is a insulin resistance on the endometrium of PCOS through a low expression of GLUTs and SHBG, mainly in obese patients.

Conclusions: Our data suggest that PCOS patients may have insulin receptor signaling disturbance in the endometrium.

P0933

STEM CELLS FROM MENSTRUAL FLUID

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Objectives: The aim of this study was to standardize techniques of characterization by immunophenotyping and cryopreservation of stem cells obtained from menstrual fluid.

Method: Twenty volunteers were selected with regular menstrual cycle without gynecological diseases. They collected menstrual fluid on the most intense flux day to analysis by immunophenotyping and cellular culture. Cellular culture was performed in two stages up to the cells reached semi-confluence then they were cryopreserved. After that, stem cells were differentiated.

Results: Cell viability was 76.05±24.57%. After culture, mesenchymal stem cells increased from 0.14±0.26% to 96.19±2.14%. Cell colonies formed clusters and reached confluence after 15 to 21 days and 3 days of culture in first and second passages, respectively. Stem cells were cryopreserved and, after that, they have differentiated into adipocytes, osteocytes and chondrocytes.

Conclusions: Stem cells of menstrual fluid may be obtained from menstrual fluid. The menstrual fluid is a viable source of mesenchymal stem cells for collection and culture.

P0934

ANTI-MÜLLERIAN HORMONE LEVELS, NUMBERS AND SIZES OF ANTRAL FOLLICLES IN REGULARLY MENSTRUATING WOMEN REFERENCED TO TRUE OVULATION DAY

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Objectives: Anti-Müllerian hormone (AMH) may vary throughout the menstrual cycle, though evidence is conflicting, probably due to differences in assay performance and methodologies used to assign the phase of the menstrual cycle. In experimental settings, AMH appears to be produced substantially by small antral follicles only, but this has not been confirmed in a normal, healthy population. This study sought to establish whether AMH levels vary throughout the menstrual cycle in women of reproductive age and which follicles substantially produce AMH.

Method: Volunteers were participants of the MeMo (menstrual monitoring) study (NCT01802060); a prospective study of 40 regularly menstruating women with no known subfertility (aged 18–37, mean age 28.9) who collected daily urine samples. Volunteers visited the study centre for blood samples and transvaginal ultrasound within one complete menstrual cycle. Study visits were every 2 days, or daily from follicle size > 16mm until, post-ovulation. AMH was measured using the Beckman Coulter Gen II assay. Poisson mixed effects models were used to analyze AMH variability and correlation of follicle counts and size-classes to AMH levels.

Results: AMH is only produced by small antral follicles (2–7 mm). Mean AMH concentrations vary across ovulatory menstrual cycles and show a statistically significant decrease from day −5 to 2 days after ovulation and significantly lower mean levels of luteal AMH (~7.64% to mean follicular AMH). The number of antral follicles can be estimated from the level of follicular phase AMH using Poisson mixed effects models. The significant decrease of AMH towards ovulation (~10.52%) is not relevant for antral follicle count. Models were created using days 4–7 and days 4-ovulation, with narrower prediction intervals seen for the 4–7 day model.

Conclusions: AMH varies across the menstrual cycle according to its physiological role in follicular maturation. The number of antral follicles may be estimated from AMH levels measured on each day pre-ovulatory. This might have an impact on dosage in ovarian stimulation, on prediction of ovarian response, on facilitation of diagnosis in cases of ovulation disorders associated with difficult or impossible vaginal ultrasound and, in the future, facilitate comparison different AMH assays as a step to standardisation in future.
the additional information could also assist with planning of conception.

**P0936**

ASSOCIATION BETWEEN OSTEOCALCIN AND METABOLIC SYNDROME OF POSTMENOPAUSAL WOMEN IN SOUTH KOREA

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**Objectives:** Undercarboxylated osteocalcin (ucOC) has been proved as a regulator of glucose and fat mass in an animal model. This study examined the association between osteocalcin and MetS in postmenopausal women.

**Method:** We selected 135 postmenopausal women and determined anthropometric values (waist-hip ratio [WHR], visceral fat area [VFA], body fat mass [BFM], and skeletal muscle mass [SMM]), the lipid profile, fasting plasma glucose (FPG), insulin, high-sensitivity C-reactive protein (hs-CRP), homeostasis model assessment of insulin resistance (HOMA-IR), serum leptin and adiponectin level, and serum tOC and ucOC level.

**Results:** Both serum tOC and ucOC were higher in the non-metabolic syndrome group and the differences between the two groups were significant after adjusting for age and menopause years. After adjustment, ucOC was negatively correlated with WHR, VFA, BFM, triglyceride, fasting insulin, HOMA-IR, serum leptin, and the leptin/adiponectin ratio, and was positively correlated with serum adiponectin. The odd-ratio for MetS was significantly lower in the highest quartile than the lowest quartile after adjusting for age, years since menopause, and BMI. In multiple regression analysis, serum leptin and HOMA-IR were the most important predictors of the independent variables that affect serum ucOC.

**Conclusions:** UcOC showed an inverse correlation with markers of insulin resistance, central obesity, and the presence of MetS in postmenopausal women, and appears to protect against MetS. Further large-scale clinical and experimental studies are needed to clarify the potential of ucOC as a predictor of MetS in postmenopausal women.

**P0937**

SINGLE NUCLEOTIDE POLYMORPHISM 538 T/C OF THE BMP4 GENE IS ASSOCIATED WITH BETTER METABOLIC PROFILE IN POLYCYSTIC OVARY SYNDROME WOMEN

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**Objectives:** 1) To assess the allelic frequencies of rs4898820 and 538T/C polymorphisms in PCOS women and in a control group; 2) To investigate whether there is an association of the polymorphisms with clinical and laboratorial parameters in PCOS women with and without hirsutism.

**Method:** This is a prospective study, in which a total of 245 women (142 with PCOS and 103 control women) were investigated. DNA was extracted from peripheral blood and polymerase chain reaction (PCR) followed by restriction fragment length polymorphisms were used to identify single nucleotide polymorphisms rs4898820 and 538T/C. Allelic frequency in PCOS women and controls were assessed. In PCOS group, clinical and laboratorial parameters were analyzed.

**Results:** There was no association between the genotypes and the presence of hirsutism in PCOS women. In the PCOS group, homozygous genotype CC for 538 T/C was associated to better insulin sensitivity (p=0.015), lower levels of glucose (p=0.038) and higher levels of SHBG (p=0.002). Mutated allele (CC or TC), were associated with lower levels of free testosterone (p=0.034). Mutated genotype (TT) for the polymorphism rs4898820 had higher levels of FSH (p<0.001).

**Conclusions:** The presence of the polymorphism 538T/C in PCOS women is associated with better hormonal and metabolic profile. It seems that 538 T/C has a protective role in PCOS women and this effect might be linked to BMP4 role in adipocyte metabolism. There was no association between the genotypes and the presence of PCOS or hirsutism.

**P0938**

SIGNIFICANCE OF DETERMINATION OF THE HORMONAL PROFILE OF PATIENTS WITH ENDOCRINE FORMS OF INFERTILITY IN ORDER TO OPTIMIZE THE CHOICE OF TREATMENT

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**Objectives:** Endocrine infertility is one of the most common and complex forms of female infertility, having a diverse clinical, morphological and biochemical manifestations, which are based on a disturbance of the process of folliculogenesis, ovulation and ovarian steroid-producing function. In addition, it is known that the structure of reproductive disorders and the end result of treatment depends on the age of the woman. Determination of the complete hormonal profile in patients of different reproductive age to identify the form and type of reproductive disorders and subsequent conduct adequate pathogenesis-based therapy, leading to the recovery of menstrual function and onset of pregnancy.

**Method:** We examined 173 patients with endocrine forms of female infertility: group I – 75 patients the average reproductive age from 25 to 34 years old, group II – 78 patients late reproductive period from 35 to 44 years old. Control group – 20 relatively reproductive and physically healthy women of reproductive age from 20 to 40 years. All patients performed a complete clinical and laboratory examination with assessment of hormonal steroid profile and ultrasonography in the dynamics of the menstrual cycle. Statistical processing of the results.

**Results:** In women of average reproductive age the main forms of endocrine infertility are reproductive dysfunction due to anovulation (53.3%) and hyperandrogenism (84%). Normoestrogen form of anovulation was in polycystic ovarian transformation, hypogrotestosteron type of luteal phase deficiency was in multifollicular ovary. In patients older than 35 years the leading cause of infertility are the consequences of age restructuring of the reproductive system, manifested like desynchronization of ovulation and subsequent development of luteal phase deficiency. Hormonal profile indicates marked reduction in steroid ovarian activity (increase in FSH levels, a decrease of ovarian volume, decline in inhibin B and AMG).

**Conclusions:** Determination of the hormonal profile of steroid hormones, evaluation forms (luteal phase deficiency and anovulation) and the type of reproductive disorders (hyperestrogen, normoestrogen, hypogestrogen) in patients suffering from endocrine infertility, is crucial in determining treatment strategies depending on age. The results of this algorithm allows to analyze the main type of damage of the reproductive system, to give a prognosis for the restoration of menstrual and generative functions, as well as a make choice of pathogenic-based correction of that disorders, leading to the recovery of menstrual function and onset of pregnancy.
**P0929**

**METABOLOMIC PROFILE OF THE LIVER OF POLYCYSTIC OVARY SYNDROME RAT MODEL EXPOSED TO NEONATAL ANDROGEN OR ESTROGEN**

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**Objectives:** To determine the hepatic metabolomic profile of female rats submitted to neonatal exposure to testosterone or estrrogen.

**Method:** Twenty-nine female rats with 0–3 d of age and these animals were sorted in three experimental groups according to the subcutaneous administration of the following compounds: testosterone propionate (1.25 mg) (testosterone group, TG; n=9), estradiol benzoate (0.5 mg) (estradiol group, EG; n=10) and vehicle (0.1 ml) (control group, CG; n=10). The animals were sacrificed at day 90th, and the liver was removed to evaluate the metabolomic profile.

A targeted metabolomic profiling scheme was used (p180 kitTM, Biocrates, Innsbruck, Austria). Metabolite panel is composed by 183 different metabolites. Statistical analysis was performed using the web-based analytical pipeline MetaboAnalyst 2.0.

**Results:** Global analysis of all the metabolites showed different profiles among CG, EG and TG. Component analysis identified twenty five compounds that better discriminates the three groups. Among than, long chain acylcarnitines (C14:1, p<0.0001; C16:2, p=0.006) and ACSL1, p=0.002. In TG group, GCKR was significantly lower (p=0.05) and Val/CS ratio, which is used a proxy of SLC22A4 enzyme activity, was significantly higher (p<0.004). Those metabolites are linked to type 2 diabetes. In the estrogen group (EG), it was noted a remarkable increase of hydroxylated metabolites.

**Conclusions:** Targeted metabolomic showed that different exposure during neonatal life leads to different alterations in the metabolism in adulthood in rat model. Testosterone seems to impair metabolites linked to type 2 diabetes and hepatic disease. On the other hand, estrogen, induces to hydroxylation of several metabolites.

**P0940**

**OVARIAN HYPERSTIMULATION SYNDROME (OHSS) IN SPONTANEOUS PREGNANCY**

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**Objectives:** To discuss the occurrence of OHHS during spontaneous pregnancy, and its impact on pregnancy.

**Method:** Web based data collected and analysed.

**Results:** sOHSS is associated with morbidity & mortality, need to be carefully management.

**Conclusions:** Though rare, the Gynecologist and chest physicians should be more aware of this syndrome. sOHSS Should be managed with multidisciplinary approach along with obstetricians help in order to ensure timely diagnosis and better management of these pregnant patients. If left untreated, it can result in serious health complications and even death.

**P0941**

**POLYCYSTIC OVARIAN SYNDROME: CLINICAL AND BIOCHEMICAL CORRELATION WITH VITAMIN D LEVELS**

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**Objectives:** To determine the correlation of Vitamin D levels with various clinical and biochemical parameters in Polycystic Ovarian Syndrome.

**Method:** Population: 50 women with PCOS diagnosed on the basis of Rotterdam criteria from outpatient department, Safdarjung hospital, N.Delhi.

**Design:** Observational study.

PCOS women were subjected to anthropometric measurements and clinical assessment. Hirsutism scored using modified Ferriman Gallwey score with >7 as cut off. Biochemical parameters evaluated were vitamin D, fasting insulin, fasting glucose, DHEAS and testosterone. HOMA-IR was calculated. The study population was classified into 3 groups according to the level of vitamin D: group A = <10 ng/ml, group B = 10–20ng/ml and group C ≥ 20 ng/ml. Correlation of Vitamin D with clinical and biochemical parameters was done. Using multiple linear regression analysis.

**Results:** Vitamin D was observed in 51.5% PCOS women only in group A. Menstrual cycle irregularity observed in 24/33, 6/9, 6/8 in Group A, B and C respectively. Hirsutism was observed in 84.8%, and 44.4% in group A and B. Mean Testosterone was 0.49 ng/ml, 0.35 ng/ml, and 0.2 ng/ml whereas DHEAS levels were 4.6 ng/ml, 4.45 ng/ml and 2.9 ng/ml in Group A, B and C. Insulin resistance was higher in group A than group C (4.9 vs 2.6). Multiple regression analysis established a negative correlation of vitamin D levels with BMI (r=-0.8; p<0.05), hirsutism (r=-0.715), insulin resistance (r=-0.484; p<0.05), testosterone (r=-0.384; p<0.05) and DHEAS (r=-0.371; p<0.05).

**Conclusions:** Clinical symptoms and biochemical parameters showed an inverse relationship with Vitamin D levels. Lower vitamin D levels were related to increased severity of clinical and biochemical features of hyperandrogenism. Obesity and Insulin Resistance also correlated inversely with vitamin D levels. Vitamin D can be used as a predictor of obesity, hyperandrogenism and insulin resistance in PCOS.

**P0942**

**DIENOGEST AND BAZEDOXIFENE COMBINATION THERAPY FOR ENDOMETRIOSIS IS USEFUL FOR PREVENTION OF BREAKTHROUGH BLEEDING**

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**Objectives:** Dienogest is an orally-active semisynthetic, steroidal progestogen. It is well known that dienogest is effective for the treatment of endometriosis, and widely used in Japan and European countries. Dienogest has clinical excellent effect, however, it has a disadvantage point that it can cause unpredictable uterine breakthrough bleeding. On the other hand, bazedoxifene (SERM) has an inhibiting action for the endometrial growth during it acting as the predicting bone loss. The present study was performed to elucidate the effect of the combination of these two drugs for the prevention of the unexpected uterine breakthrough bleeding.

**Method:** Sixteen endometriosis patients who had been diagnosed by the previous laparoscopic operations were subjected under the enough informed consent. All of the subjected patients had no lesion of adenomyosis. Then, dienogest (2 mg/day) and bazedoxifene (20 mg/day) were administered from the first day of the menstrual cycles (group A), and the duration of no breakthrough bleeding (days), the plasma estradiol levels and the endometrial thickness measured by the transvaginal ultrasonic scanner in the beginning day of the uterine bleeding were compared to the control (group B, administered dienogest only, 20 cases).

**Results:** The duration of no breakthrough uterine bleeding in the group A and B was 90.2±30.4 vs. 63.3±31.2 days, respectively (p<0.05). There was no significant change in the plasma levels of estradiol (30.5±8.7 vs. 32.4±11.5 pg/ml). The thickness of the endometrium was 3.9±0.7 vs. 5.1±1.9 mm, respectively (p<0.05).
Conclusions: The combination therapy of dienogest and bazedoxifene is effective for the extension of the unexpected uterine breakthrough bleeding. This new therapy may be useful for the improvement of the QOL of the endometriosis patients during dienogest administration.

P0943
ADENOMYOSIS IN A LATERALLY DISPLACED RUDIMENTARY UNICORNUATE UTERUS
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Objectives: The objective of my presentation is to present a rare case of adenomyosis that was found in a laterally displaced rudimentary horn in which there is an extreme right lateral displacement of a unicornuate rudimentary uterus. This was misdiagnosed by pelvic ultrasound and MRI as a solid ovarian tumor (fibroma) and the patient was referred to our center for fibroma excision. This shall raise the demand for thorough investigations in any teen presenting with primary amenorrhea, where a high suspicion of rare Mullerian anomalies is to be considered.

Method: 28-year-old woman presented with primary amenorrhea & abdominal pain. She was diagnosed as MRKH (Mayer-Rokitansky-Kuster-Hauser) Syndrome and ovarian fibroma. No other medical or surgical illness, no family history of congenital anomalies. On examination Height 156 cm and weight 67.3 kg, secondary sexual characteristics appeared normal, pelvic examination revealed normal vulva and hymen, vagina was not examined since she was a virgin. Hormonal investigations and tumor markers were all normal, karyotype 46, XX female.

Results: Ultrasound revealed absent uterine body and cervix, a well-defined hypoechoic rounded inhomogeneous solid mass seen lateral to the right ovary measuring 42 × 31 mm. MRI & CT scan confirmed with the pelvic ultrasound findings, MRI further revealed absent vagina, with normal other abdominal structures. Laparoscopy was performed, no identifiable uterine body or cervix was found. 4 cm rounded mass was seen in the right gutter attached the right fallopian tube, concluding it to be the rudimentary horn and thus was resected along with the right tube. Histopathology confirmed the resected mass to be myometrium with proliferative endometrium and multiple foci of adenomyosis.

Conclusions: Here we present a rare case in which there is extreme right lateral displacement of a unicornuate rudimentary uterus. The uterus is only a round flesh of myometrium with adenomyosis. There was partial and abnormal development of only the right Mullerian duct, along with total absence of the left Mullerian duct with no renal anomaly. The importance of an early laparoscopy is evident from our case, especially in unexplained cases to make an early diagnosis, leading to correct management, better acceptance of the condition by the patient, less psychological problems and improving quality of life.

P0944
PREDICTING MENSTRUAL TRANSITION – A COMPARATIVE STUDY
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Objectives: Menopause transition gives a narrow window period for therapeutic intervention. Currently used predictors are age menstrual irregularity FSH and. E2.We have compared new parameters AMH and AFC with the existing parameters – age menstrual irregularity and FSH considering the reproductive potential and the consequent therapeutic intervention. The aim of the present study was to establish the predictivity of Menstrual Transition of the various parameters and see the available window period for therapeutic interventions of these parameters.

Method: Data from 603 Patients going for IVF at IVF centre at Delhi was analysed retrospectively in collaboration with a medical college hospital at Indore. Patient were grouped in 4 groups in different age groups 1 (<30), 2 (30–35), 3 (35–40) and 4 (>40). Chronological age, menstrual irregularity, FSH, AMH and AFC were compared as predictors of MT. Reproductive potential was analysed by comparing the availability of eggs for ART or the need to resort to egg donation.

Results: Abnormal parameters in 12, 23, 51 patients in different age group. Premature ovarian insufficiency seen in 2, 8, 16 and 23 patients respectively. AMH was low in 2, 12, 23 patients respectively. FSH was raised in 2, 6, 26, 30 patients respectively. AMH was the earliest and reliable predictor of menopause transition closely followed by AFC. FSH is reliable but late predictor. Menstrual irregularity and chronological age are of low predictive value. study shows reproductive potential was best used when menopause transition was predicted by AMH and AFC. Some patients with lower AMH but borderline AFC had recoverable eggs. Majority of patients with low AMH and low AFC had to undergo egg donation. It was seen that in patients with high FSH, AMH was always low and significantly increased the number of these patients for egg donation programme.

P0945
COMPLEMENTARY MEDICINE AND OHSS
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Objectives: We aimed to assess the association between herbal medication and OHSS.

Method: This retrospective cohort study was conducted with 101 polycystic ovary syndrome patients. Thirty-five patients took conventional pharmacological medications and 66 took herbal medications. Patients underwent vaginal ultrasonography and physical examination to diagnose OHSS. After comparing the prevalence of OHSS in both groups, data were analyzed by statistical test including Fisher’s Exact and binomial logistic regression. P <0.05 was considered significant.

Results: Of the 101 female patients that participated in this study, there was a significant difference between the two groups in OHSS prevalence (P <0.001). After adding the dependent (OHSS prevalence) and independent (marriage and group) variables into the model, the Hosmer–Lemeshow test showed suitability with P=0.401. Variance analyzed with this model ranged between 29.4% and 40.7%.

Conclusions: The indiscriminate use of herbs is correlated with OHSS. Because patients increasingly consume herbs, they should be aware of potential side effects. However, appropriate dosages of herbs could be obtained to use instead of conventional treatments, which often have side effects.
P0946
THYROID AUTOIMMUNITY IN REPRODUCTIVE ENDOCRINE DISEASES
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Objectives: Thyroid autoimmunity (TAI) is the most common female autoimmune disorder of reproductive ages, with the prevalence reported between 5–15%. TAI is related to increased serum level of anti-thyroid peroxidase immunoglobulin (anti-TPO) and often coincidences with hypothyreosis, which negatively influences the reproductive function. TAI has been reported to increase the risk of miscarriage and adverse pregnancy outcome, and relation is suspected to wide spectrum of gynecologic reproductive diseases such as endometriosis, premature ovarian failure (POF), anovulatory infertility and repeated pregnancy loss (RPL). We aimed to investigate the relation between the TAI incidence and the above listed infertility subpopulations.

Method: 285 patients referred to reproductive endocrinology and infertility workup were screened for TAI by measuring the serum anti-TPO level. Relation between serum anti-TPO level and age was investigated using correlation test and linear regression analysis. Case control analysis was used to calculate the relative risk of subclinical and overt hypothyreosis, endometriosis, POF, anovulatory infertility and RPL.

Results: 91 patients had elevated serum anti-TPO level (32%). There was a positive correlation between age and serum anti-TPO level (r=0.38, p<0.5), and according to the linear regression each year over 20 a mean increase of 56.9 mU/L in the anti-TPO level. With case control analysis there was a 7 times increased risk for hypothyreosis in the presence of TAI (OR: 6.69). The risk was doubled for endometriosis and POF in TAI positive patients (OR: 2.2 and 1.5), while slightly increased risk was found for anovulatory infertility and endometriosis (OR: 1.3 and 1.6).

Conclusions: TAI is common in patients visiting reproductive endocrinology and infertility units, and its prevalence increases with age. The relation of TAI to hypothyreosis is strong and well documented, patients are naturally screened for these disorders. However, an increased risk of endometriosis, POF, anovulatory infertility and RPL also can be detected in the presence of elevated anti-TPO level, thus screening for TAI is recommended in the diagnostic workup.

P0947
PREVALENCE OF GLUCOSE INTOLERANCE IN WOMEN WITH POLYCYSTIC OVARY SYNDROME
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Objectives: Women with polycystic ovary syndrome (PCOS) are insulin resistant and are at high risk for glucose intolerance. The objective of our study was to determine the prevalence of glucose intolerance in women with PCOS in our region.

Method: The prospective case control study was carried at M.K.Nursing home among 50 women with PCOS over a period of 1 year (January–December 2014). 50 healthy women were served as a control group. We have performed OGTT in 50 women with PCOS as well as in control group.

Results: The mean age was (16–28 years) 22±1.1 years. The mean body mass index was 26.2±1.2 kg/m². Women with PCOS and control subjects didn’t differ in mean age or BMI. Using the blood glucose level during OGTT, 2 (4%) women had diabetes mellitus compatible with impaired fasting glucose and 6 (12%) had IGT, while 42 (84%) had normal glucose tolerance test. Fasting and AUC insulin values are significantly (p<0.005) higher in women with PCOS than in control subject.

Conclusions: Women with PCOS are at highly risk for the development of IGT and subsequently Type 2 DM. So screening should be done for glucose intolerance in women with PCOS.

P0948
Y OR Y NOT – AN AUDIT OF XY FEMALES WITH PRIMARY AMENORRHEA FROM A TERTIARY CENTRE
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Objectives: To audit the diagnosis and management of XY karyotype from a tertiary referral centre.

Method: A retrospective analysis of adolescents and young women with primary amenorrhea attending the gynecology and endocrine clinics over two years (January 2011–December 2013) was done. All subjects underwent a defined set of investigations after a thorough history and clinical examination. These investigations included an ultrasound pelvis, baseline hormone assays including serum FSH, LH, prolactin, estradiol and testosterone where indicated, and karyotype. Subjects were categorized based on levels of gonadotropins as hypo, hyper or eu-gonadotropic amenorrhea. Further anatomical defects attributing to amenorrhea were defined after clinical evaluation and ultrasound. Karyotype identified a subset of XY females.

Results: Of the 73 subjects with primary amenorrhea, karyotype diagnosed 10 (13.6%) cases of 46XY females. Of the 10 further investigations confirmed 46 XY gonadal dysgenesis (Swyer’s syndrome) (n=6), androgen insensitivity syndrome (n=3) and 5 alpha reductase deficiency (n=1). Of the 6 cases with Swyer’s syndrome 2 had familial Swyer’s affecting siblings. Four cases had streak gonads, two had germ cell tumor including Dysgerminoma. Laparoscopic gonadectomy was done early in Swyer’s and streak gonads, and was delayed until 18 years in androgen insensitivity syndrome. Staging laparotomy and debulking surgery was done for tumors. All XY females are on hormone replacement therapy.

Conclusions: XY females are not uncommon cause with primary amenorrhea. A high incidence of XY females in our series reflects data from a referral tertiary hospital.

P0949
EVALUATION OF HORMONE LEVELS AND PELVIC ULTRASOUND FINDINGS AMONG MALAWIAN WOMEN WITH OBSTETRIC FISTULA
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Objectives: Obstetric fistula is a morbid condition that usually results from prolonged obstructed labor. In addition to causing continuous leaking of urine and/or feces from the vagina, it has also been associated with secondary infertility and amenorrhea. Therefore, we sought to evaluate for the potential causes of amenorrhea in women with obstetric fistula.

Method: This cross-sectional study enrolled Malawian women who were having obstetric fistula surgery at the Fistula Care Centre in Lilongwe, Malawi. Eligibility criteria included: age 18–45 years, history of prior pregnancy, and the presence of a uterus on ultrasound. Eligible women underwent transvaginal sonography, including measurement of the antral follicle count (AFC). Serum was obtained for measurement of anti-mullerian hormone (AMH), follicle-stimulating hormone (FSH), and estradiol levels. After appropriate transformations,
Student’s t-test, Fisher’s exact test, and linear regression were used to determine the association between amenorrhea and both hormone levels and ultrasound findings.

**Results:** We enrolled 98 women, of which 33 (33.7%) reported amenorrhea. Of these 33 women, 4 (12.1%) had hypergonadotropic hypogonadism (low FSH, low estradiol), 4 (12.1%) had hypergonadotropic hypogonadism (high FSH, low estradiol), 4 (12.1%) had an AFC > 12 (suggestive of PCOS), and 3 (9.0%) were using depot medroxyprogesterone. Of the remaining 18 women, 15 (45.5%) were within 1 year of delivery and likely to be breastfeeding, leaving 3 women (9.0%) with unexplained amenorrhea. Women with amenorrhea had significantly lower AMH levels (1.4; IQR 0.2, 2.6) than women with without (2.7; IQR 0.6, 5.0; p=0.029), even after adjusting for age (p=0.003).

**Conclusions:** One third of our obstetric fistula population had amenorrhea. The most common finding among these women was that they were post-delivery. The most concerning finding was that 4 women had hypergonadotropic hypogonadism (primary ovarian insufficiency), which is irreversible and associated with other health consequences. In addition, women in our study with amenorrhea had significantly lower ovarian reserve than those with menses, which was not due to age. Further studies could include hysteroscopy (to evaluate for Asherman’s) and long-term follow-up to evaluate if these women resume menses after surgery and if their hormonal and ultrasound findings are predictive of future fertility.

**P0950**

**BENZYL BUTYL PHTHALATE MEDIATED THE DIFFERENTIATION PROGRESS OF ENDOMETRIAL MESENCHYMAL STEM-LIKE CELLS THROUGH MIR137/PITX 2 SIGNALING PATHWAY**

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**Objectives:** To investigate the effect of BBP on differentiation progress and find the novel mediate factor in endometrial mesenchymal stem-like cells (EN-MSCs).

**Method:** EN-MSCs were isolated from the eutopic endometrium and identified the ability to differentiate into osteogenic and myogenic lineages. Using whole-genome screening with a high-density microarray assay, we clarify the global impact of BBP on differentiation in EN-MSCs. Further, we used miRNA target-prediction software (miRanda) to predict for potential targets. To evaluate the level of miRNA targets with RT-PCR in by overexpression or knockdown of miRNA. We further used the immunocytochemistry to assess the differentiation ability of EN-MSCs. Finally, we used immunofluorescence stain and immunohistochemistry in the tissue sample obtained from the animal model to confirm the in vitro results.

**Results:** EN-MSCs were isolated from the eutopic endometrium and identified the ability to differentiate into osteogenic and myogenic lineages. Using whole-genome screening with a high-density microarray assay, we clarify the global impact of BBP on differentiation in EN-MSCs. Further, we used miRNA target-prediction software (miRanda) to predict for potential targets. We confirmed the significant targets with real-time qPCR by overexpression or knockdown of miRNA. We further used the immunocytochemistry to assess the differentiation ability of EN-MSCs. Finally, we used immunofluorescence stain and immunohistochemistry in the tissue sample obtained from the animal model to confirm the in vitro results.

**Conclusions:** Our study shows that BBP decreases the differentiation ability of EN-MSCs through activation of miR-137 expression. Subsequently, miR-137 targets PITX2 to affect myogenesis. These findings contribute to our understanding of the differentiation ability of EN-MSCs in human, and the hazard potential of environmental hormone.

**P0951**

**ORAL GLUCOSE TOLERANCE TEST SHOULD BE RECOMMENDED AS THE SCREENING METHOD FOR DYSGLYCAEMIA IN ALL SOUTHERN CHINESE WOMEN WITH POLYCYSTIC OVARY SYNDROME**

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**Objectives:** Polycystic ovary syndrome (PCOS) is commonly associated with abnormal glucose metabolism. There have been debates on whether fasting glucose (FG) or an oral glucose tolerance test (OGTT) should be used as a screening method for dysglycaemia in this group of women. There has been little evidence on the screening strategy for dysglycaemia in women with PCOS in the Southern Chinese population. This study reviewed the performance of FG and OGTT in diagnosing dysglycaemia in a cohort of Hong Kong Chinese women with PCOS, with or without additional consideration of BMI and family history of DM.

**Method:** We prospectively recruited 467 Hong Kong Chinese women diagnosed with PCOS by the Rotterdam criteria during April 2011 to March 2013. All subjects attended the clinic within the first 5 days of spontaneous or induced menstruation after overnight fasting for a 75g 2-hour OGTT. Impaired fasting glucose (IFG), impaired glucose tolerance (IGT) and diabetes mellitus (DM) were defined according to the American Diabetes Association (2010) criteria; these categories were collectively referred to as dysglycaemia (i.e. FG ≥5.6 mmol/l or 2h glucose ≥7.8 mmol/l) in the current study. Individuals with IFG and/or IGT were referred to as having pre-diabetes.

**Results:** Among the recruited subjects, 58 (12.4%) had dysglycaemia (46 pre-diabetes and 12 DM, including 4 having pre-existing DM). Out of the 46 subjects with pre-diabetes, 25 (54.3%) had normal FG, and of the 8 subjects with screened DM in this study, 1 (12.5%) had normal FG. The sensitivity of FG alone in screening for pre-diabetes, DM and overall dysglycaemia were 45.7%, 87.5% and 48.1% respectively. Among the 58 subjects with screened dysglycaemia, 20 (34.5%) had BMI <25 kg/m² and 35 (60.3%) had no family history of DM.

**Conclusions:** The use of FG alone could miss 54.3% of pre-diabetes and 12.5% of DM cases among Chinese women with PCOS. A full OGTT should be recommended as the screening method for dysglycaemia in women with PCOS regardless of the BMI or family history of DM.

**P0952**

**PERINATAL EXPOSURE OF DEHP INDUCED PCOS LIKE GENETIC AND PATHOLOGIC CHANGES IN F1 OFFSPRING MOUSE**

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**Objectives:** In our previous results, We analyzed the effect of DEHP to gene expression of endometrial cancer cell line, and speculated that DEHP would affect the degree of the expression of genes involved in the cell cycle, oocyte meiosis and progesterone mediated oocyte maturation. We hypothesized exposure of DEHP during perinatal period altered gene expressions of siblings and made some pathophysiological changes related with PCOS. We also expected this results could help to make hypothesis of development of human PCOS.

**Method:** Adult female mice were mated, and Pregnant mice were injected sc with corn oil (control) or DEHP 9 through 16 of gestation and on days 7 through 21 after birth. The daily dose of DEHP was 30 μg/kg/day (low dose group) and 400 μg/kg/day (high dose group). F1 female mice were euthanized at 16–18 weeks of age and weighted.
Ovaries were removed, stained with hematoxylin and eosin and evaluated by light microscopy. We checked micro CT to analysis of fat tissue. Microarray was performed with resected ovary.

**Results:** In KEGG pathway analysis, PPAR pathway, ovarian steroid hormone synthesis, type II DM and arachidonic acid metabolism are common up-regulated.

Mean body weight of control group is significantly lower than other groups. Amount of visceral fat using micro CT analysis showed significantly lower high dose and high dose group than control. Percentage of hyperthermosis area is higher in low dose treatment group than other groups. Number of primary follicles were significantly lower in low dose treatment group and number of secondary follicles were significantly higher in high dose treatment group. Cystic changes of ovary with dense fibrous band were observed only in low dose group.

**Conclusions:** Perinatal DEHP exposure caused genetic and pathologic changes similar with PCOS. After perinatal exposure of DEHP, weight and body fat were increased and ovarian hyperthermosis with changes of follicle counts were observed in F1 mouse. We suggested perinatal exposure of DEHP is one of candidate factor of emergence of PCOS in adulthood.

### Role of Midwifery

**P0953**

**IMPROVING ACCESS TO SKILLED DELIVERY USING COMMUNITY MIDWIVES IN KILIFI COUNTY, KENYA**

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**Objectives:** Maternal Mortality in Kenya has been on the rise from 414 to 448. Lack of access to skilled birth attendants remains a major problem in many developing countries. The use of community midwives is currently being promoted as a way of improving access to skilled delivery services. The effectiveness of such a strategy depends to a large extent on pregnant women’s knowledge and attitudes towards Community Midwives. The study tried to evaluate Knowledge, Attitude and Practice of the community on skilled community midwives and skilled birth delivery and document challenges encountered by community midwives in provision of skilled delivery at Kilifi County.

**Method:** A cross sectional study involving 400 pregnant women selected from five facilities, twenty community midwives and two key informant interviews incorporating both quantitative and qualitative methodology was conducted in Kilifi county in Kenya between February and May 2012. Permission to conduct the study was obtained from the KNH/UON Ethical review committee. Data analysis included descriptive statistics of study population and transcription of the Focused group discussion and key informant interview where themes were generated as per set objectives.

**Results:** 93% of women interviewed were aware of the cadres of clinicians providing skilled delivery services in the community. Awareness of CM was at 73.5% only 62.7% of pregnant women agreed to seek their services during childbirth because of their availability, accessibility and professional experience. Reasons for not seeking the services of CMs included perceived incompetency of community midwives to handle complications during the birth process (50.7%), unsterile environments (14.5%), lack of equipment (5.8%) and general preference for hospital delivery (17.4%). Challenges faced by CM included difficulties in handling emergencies, inadequate support from the local health system and compensation for their services.

**Conclusions:** Targeted Health Education is needed to create awareness of the role of community midwives in improving access to skilled delivery and to address various barriers associated with the use of skilled birth attendants. Stronger linkages between the community midwives and health facilities are key in realization and substantial improvement of community midwives roles. In addition, appropriate mechanisms to reward and motivate community midwives for their services need to be put in place.

**P0954**

**EXCESSIVE EXPECTATIONS FOR PREVENTIVE EFFECTS REDUCES QUALITY OF LIFE AMONG PREGNANT JAPANESE WOMEN WITH STRIAE GRAVIDARUM**

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**Objectives:** Striae gravidarum (SG) reduces the quality of life (QOL) of pregnant women. Most women used several preventive measures to avoid SG with the expectation of successful prevention. However, the effects of several preventive measures for SG have not yet been established. In the present study, we examined the correlation between high expectations for effective preventive measures and reduced QOL among pregnant Japanese women with SG.

**Method:** We conducted a prospective cohort study using self-administered questionnaires at three private clinics in Japan between August 2013 and March 2014. The questionnaire included age, gestational weeks, development of SG, preventive measures for SG, expectations for successful prevention of SG, and a dermatology-specific QOL measurement, Skindex29, which consists of emotions, symptoms, and function subscales. We distributed the questionnaire twice until 19 weeks and after 35 weeks of gestation. The Ethical Committee of Health Sciences at Osaka University approved the study (No. 263).

**Results:** We distributed 218 questionnaires, of which 136 questionnaires (62.4%) were returned and analyzed. SG was present in 34 participants (26.5%) and 114 (83.8%) used several preventive measures during pregnancy. Pregnant women with SG showed a significantly lower QOL in all subscales of Skindex29 compared with those without SG (p<0.05). Preventive measures significantly reduced the occurrence of SG (p<0.001). However, when SG developed, pregnant women who had taken preventive measures showed a significantly lower QOL in the emotion subscale of Skindex29 than those who did not (p<0.002); these women were characterized by excessive expectations for the effectiveness of preventive measures.

**Conclusions:** Although some steps were effective in preventing SG, excessive expectations for successful preventive effects might reduce QOL especially in the emotional aspect. In order to prevent reduced QOL, it is important for midwives to provide the accurate information about effects of prevention steps prior to appearance of SG.

**P0955**

**SURVEY OF THE PRACTICES OF FRENCH MIDWIVES DURING DELIVERY**

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**Objectives:** There are no guidelines in France for medical practices during “normal” deliveries, and they have not been described in detail in the French national perinatal surveys. The principal objective of our study was to describe the practices that French midwives reported using during these physiological deliveries.

**Method:** We conducted a cross-sectional descriptive survey of French midwives, both hospital-based and in private practice, who perform deliveries in equipped facilities (i.e., not home births). Only midwives who attended at least one delivery in 2013 were eligible. They were recruited for the survey through the national council of
midwives, the national college of French midwives, and social networks (Facebook, etc.). The questionnaire covered the different practices known to be used sometimes during all three stages of delivery. The questionnaire was available on the internet from June 15 through December 1, 2014.

**Results:** In all, 1,496 midwives from 377 maternity units responded. During the first stage, 97.4% of midwives advised mobilisation, unless an epidural had been placed. Lateral decubitus was the position used most often for women with epidural analgesia during the first and second stages of labor (respectively, 68% and 54%). At delivery, positions in dorsal decubitus were used most often (87.6%). For pushing, 46.4% of midwives recommended closed-glottis pushing as the first choice. The mean maximum duration of expulsive efforts was 35.07 min ± 10.7 min.

**Conclusions:** The participation rate was estimated at 14.6%. This rate is an underestimate because hospital midwives do not all attend deliveries in France, and our denominator is the number of midwives reported per maternity ward at the national level. French midwifery practices are largely conditioned by the nearly routine use of epidural analgesia. Horizontal positions, especially dorsal decubitus, are therefore favored to the detriment of vertical positions during the first two stages. The duration of expulsive efforts remains shorter than that in other countries.

**P0956**

**KEY CONSIDERATIONS TOWARDS PRODUCING MORE COMPETENT MIDWIVES: RESULTS FROM PRE-SERVICE EDUCATION (PSE) ASSESSMENT IN TANZANIA**

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**Objectives:**
- To assess the adequacy of nurse-midwifery PSE in Certificate and Diploma Programs in preparation of students with the clinical skills to provide competent, quality nurse-midwifery care.
- To assess the role that nurse-midwifery schools play in recruitment and deployment of their graduates.

**Method:** Mixed methods approaches were used to gather qualitative and quantitative data including: Desk review of curriculum and training design; and field study at four nurse-midwifery PSE schools. Data collection tools were adapted from nationally approved Continuous Quality Improvement (CQI) tools and other international materials/standards for midwifery training. Interviews were conducted with key stakeholders including school administrators and district management teams, tutors, preceptors, students, and recent graduates. Assessment areas of focus included school infrastructure, administrative issues, clinical sites, job responsibilities and recruitment processes. Observed Structured Clinical Examination (OSCE) was used to determine the level of competencies in key midwifery skills.

**Results:** Both certificate and diploma program curricula do not provide enough clinical experience to qualify as nurse-midwife. Moreover, a number of ICM essential competencies are either missing or the content is insufficient. Findings revealed that basic midwifery competencies were lacking, with very low OSCE pass rates and large discrepancies between tasks that recent graduates reported performing and their OSCE scores. The study documented a highly centralized deployment system with a very limited role for schools and a 10.6 month time-lag from graduation to posting. Site assessment found infrastructure inadequacies, tutors and preceptor shortages, and lack of opportunities for clinical updates.

**Conclusions:** The study provided insight on what needs to be improved to address the lack of competency of graduating midwives. This should be a multifaceted approach to getting the quality of training up to standard. Based on this assessment, PSE programs need to identify and prioritize cost effective, innovative and practical solutions to strengthen production and deployment of midwives, including greater involvement of the schools and local authorities in the deployment system. Investing in nurse-midwifery education is crucial; when competent graduates are deployed, their work will contribute to good health outcomes including significant reduction of maternal and neonatal mortality.

**P0957**

**RELATION BETWEEN SERUM RELAXIN AND PRESENCE OF STRIAE GRAVIDARUM AMONG JAPANESE PRIMIPARAE**

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**Objectives:** Once striae gravidarum (SG) appeared in pregnancy, it has not been cured in their life. To investigate SG occurrence cause, we have examined the relation between serum relaxin level and presence of SG in Japanese primiparae.

**Method:** Setting: Two private clinics in Japan. Design and method: forty-three Japanese primiparae women were subjected to the study. Serum relaxin samples were collected three times as before 19th (early), 20–32th (mid), and more than 33th weeks of gestation (late). After their deliveries, we collected data of age, height, weight at pre-pregnancy, weight at delivery, gestation weeks, weight of newborn, and head circumference of newborn from medical records. The unpaired t-test or generalized linear model were applied for statistical analyses using SPSS 17.0 Advanced. The Ethical Committee of Health Sciences, Kyoto University approved the study (No.1234).

**Results:** SG was observed in 9 women (20.9%). Among those who with or without SG, there were no differences in any medical parameters except that women with SG were significantly heavier in weight gain during pregnancy than those who without SG (p=0.045). The serum relaxin levels (pg/mL) of women with or without SG was 692.6±355.0 or 671.1±283.3 at early, 342.6±173.4 or 298.0±173.7 at mid, and 318.0±141.6 or 308.7±161.0 at late periods, respectively. There was no significant difference for serum relaxin change in both groups throughout their pregnancy (p=0.770).

**Conclusions:** Our results indicated that women who might prevent SG by not getting over weight gain throughout pregnancy. Although there was no relation between serum relaxin levels and presence of SG in the present study, it was thought that SG would be affected by not only local relaxin action but also other several factors. Further research should be performed to reveal the causes of SG occurrence.

**P0958**

**BIRTH PREPAREDNESS AND COMPLICATION READINESS INTERVENTIONS: A SYSTEMATIC REVIEW**

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**Objectives:** Increased preparedness for birth and complications is an essential part of antenatal care and has the potential to increase birth
with a skilled attendant. We conducted a systematic review of studies on the effect of birth preparedness and complication readiness interventions on increasing birth with a skilled attendant.

**Method:** PubMed, Embase, CINAHL and grey literature were searched from 2000 to 2012 using a broad range of search terms. Studies were included with diverse designs and intervention strategies that contained an element of birth preparedness and complication readiness. Data extracted included population, setting, study design, outcomes, intervention description, type of intervention strategy and funding sources. Skilled birth attendance was primary outcome measure, knowledge on complications was one of the secondary outcomes. Quality of the studies was assessed. Heterogeneous studies of low quality limited our ability to conduct a meta-analysis, therefore a narrative synthesis of the evidence is presented.

**Results:** Thirty-three references encompassing 20 different intervention programmes were included, of which one programmatic element was birth preparedness and complication readiness. Implementation strategies were diverse and included facility-, community-, or home-based services. Knowledge on danger signs and complications mainly increased. However, seven studies reported on an increase in birth with a skilled attendant or facility birth. Six studies focused on increased access to skilled care in case of complications, of which three found an increase in facility births. We analyzed the context and conditions of the intervention studies.

**Conclusions:** Birth Preparedness and Complication Readiness interventions can increase knowledge of danger signs and preparations for birth and complications; however this does not always correspond to an increase in the use of a skilled attendant at birth.

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**P0959**

**WOMEN’S PERCEPTIONS ON FACILITY BASED MATERNITY CARE IN TERMS OF HUMAN RIGHTS PRINCIPLES IN TANZANIA**

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**Objectives:** A human rights approach to maternal health is promoted to be essential in the battle against maternal mortality. Although fundamental human rights principles are incorporated into legal and medical frameworks, their substantive applications remain unclear. The aim of this study is to explore the contextual meaning of these principles based on perspectives and experiences of women in Magu District, Tanzania.

**Method:** This study is a qualitative exploration of perspectives and experiences of institutionalized maternity care from a human rights framework. A total of 36 in-depth interviews were held with 17 women supplemented with one focus group discussion of a selection of the interviewed women in three rural villages and one town center in Magu District. Data analysis was performed making use of inherently significant human rights principles dignity, autonomy, security and equality.

**Results:** Women’s experiences of maternal health services reflect several sub-standard care factors relating to violations of multiple human rights principles. Women described a range of ways how the services could be delivered in order to respect the human rights principles. Prominent themes included: “being treated well and equal”, “being respected” and “being given the appropriate information and medical treatment”.

**Conclusions:** Women in rural Tanzanian setting were aware that their experiences of institutionalized maternity care reflected violations of their basic rights and are able to voice what basic human rights principles mean to them and how they can be respected in service provision.

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**P0960**

**THE EFFECTS OF VITAMIN B1 ON TREATMENT OF THE PREMENSTRUAL SYNDROME SYMPTOMS**

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**Background and objective:** The premenstrual syndrome (PMS) is a series of physical, mental, and behavioral symptoms with various severities, and disturbs social and personal relationships. Different treatments have been introduced for the syndrome due to its unknown complicated causes. Vitamin B1 (Thiamin) may reduce symptoms of the syndrome through affecting the performance of coenzymes in the metabolism of carbohydrates that plays an important role in appearance of symptoms of the PMS. This study was conducted to determine the effect of vitamin B1 on the symptoms of PMS in students residing at dormitories of Jahrom University of Medical Sciences in 2013.

**Method:** In this double-blind placebo-controlled clinical trial, 80 students with PMS residing at dormitories of Jahrom University of Medical Sciences were divided randomly into two groups, vitamin B1 and placebo. The severity of the symptoms of PMS in two cycles, before the intervention and during the intervention, was recorded by the students. The data were collected using an information collection form, PMS provisional diagnosis form, daily status record form, Beck Depression Inventory. The data were analyzed using descriptive and inferential statistics.

**Results:** There was no significant difference among the studied variables in terms of confounding variables. The comparison of vitamin B1 group before the intervention with that after the intervention showed that vitamin B1 reduced mean mental (35.08%) and physical (21.2%) symptoms significantly (P < 0.0001). Moreover, there was a significant difference between vitamin B1 and placebo groups in terms of mean mental and physical symptoms, as mean symptoms in vitamin B1 group was significantly lower than that in the placebo group (P < 0.0001).

**Conclusions:** It seems that vitamin B1 is effective in recovery of mental and physical symptoms of PMS. Therefore, this vitamin can be used to reach a major goal of midwifery, that is, reduction of symptom severity of PMS, without any side effects.

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**P0961**

**USE OF CLINICAL MENTORS IN MATERNITY UNITS TO IMPROVE PROVIDERS COMPETENCES TO MANAGE PPH AND BIRTH ASPHYXIA**

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**Objectives:** The importance of peer-led mentorship offered on job cannot be over-emphasized. The peer leader or “Clinical Mentor” (CM) is a key support in practice; the mentor mobilizes colleagues, sets up models to use in practice, responds to questions and consults District Trainers (DTs) for additional support. The objective of this study was to improve and sustain the frequency of providers’ weekly practice sessions for key PPH and newborn care interventions to improve provider competencies to prevent, detect, and manage PPH and birth asphyxia.

**Method:** The study is a quasi-experimental design with three study arms that receive different interventions to support practice after initial training. A facility-based Clinical Mentor received a day of clinical training and half-day of orientation in the mentor role to enable weekly, onsite practice with peers using maternal and newborn simulators. At each facility, the CM mobilizes all birth attendants for weekly simulation practice sessions to practice for 15 minutes each session for 8 weeks each after Helping Mothers Survive Bleeding after Birth and
Helping Babies Breathe training and 4 weeks for combined sessions of BAB and HBB skills.

Results: Eighty percent of facilities had practice logs in full study arm, 77% in partial and 29% in control. As a result of practice there was an improvement in competences of providers. The percentage of providers who prepared uterotonic in advance was 78%, bag and mask was 35% and 99% of women received uterotonic after birth but only 16% within 1 minute. After the intervention, preparation of uterotonic increased to 89% and bag and mask testing increased to 54%. Ninety-nine percent still received uterotonic after birth but twice as many (33%) received it within 1 minute after the intervention.

Conclusions: Use of clinical mentorship to support practice after training on the maternity improved the competency of midwives attending birth and it provided an opportunity for all midwives at the health facility to be trained.

P0962
MEASURING WOMEN'S AUTONOMY AND EXPERIENCE OF RESPECTFUL MATERNITY CARE
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Objectives: In this provincially funded, community-based participatory action research project, a steering group women of childbearing age from different cultural and socio-economic backgrounds engaged multiple stakeholders as well as leaders from NGO’s, researchers, and community agencies to examine women’s experiences with maternity care in British Columbia. The mixed methods study explored topics that have not previously been detailed: women’s preferences for model of care; perceptions of reasons for intervention; access to midwifery care; and experiences of autonomy, respect, discrimination, or coercion, when participating in a shared decision making process.

Method: The team self-organized into four work groups: 1) current and potential midwifery students; 2) previously incarcerated women; 3) immigrant and refugee women; and 4) street-entrenched women experiencing multiple barriers. Through an extensive content validation process including community consultations with 1300 women, literature review, and expert panel review, the team developed four versions of a cross-sectional online survey and focus group questions. Women of childbearing age across BC were recruited via email, postcards, community list-serves, NGO websites, post-card, posters, and social media outlets. We subjected quantitative data to descriptive, bivariate, mixed-effects and psychometric analysis, and a thematic analysis for qualitative data.

Results: Women from all socio-economic backgrounds participated in the surveys (N4087) and focus groups (N203). Two new scales that measure women’s Autonomy in Decision Making (ADM) (range 7–42) and experience of Respectful Maternity Care (RMC) (range 0–7) displayed reliability and construct validity. Healthy women with healthy newborns had significantly higher scale scores (p<0.008).

Women with obstetricians and family physicians had significantly lower ADM and RMC scores than those who saw midwives. Among women who experienced interventions several [inductions 18.0% (509); epidural 8.8% (249); and caesareans 11.0% (337)] felt pressured women who experienced interventions several [inductions 18.0% (509); epidural 8.8% (249); and caesareans 11.0% (337)].

Conclusions: Women’s autonomy and role during the decision-making process during pregnancy & birth differs significantly depending on their health status, need for interventions and type of providers. The most important factors are having a respectful, supportive and trusting relationship with care provider(s); enough time to discuss options for care; and being unpressured during decision making. These findings from communities in a high resource country mirror reports on the state of respectful maternity care in low and middle resource countries. The community based participatory action research model generates authentic patient-reported outcomes, & could inform health systems policy and health professional education globally.

P0963
PATIENT PERCEPTIONS OF MIDWIFERY CARE, DEBRE MARKOS ETHIOPIA
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Objectives: As in much of Sub-Saharan Africa, Ethiopia has persistently high levels of maternal mortality (676 deaths/100,000 live births) and low levels of skilled birth attendance at delivery (<15%). There is increasing recognition that one of the reasons women are reluctant to use maternal health services is poor service quality, and in particular fears of provider mistreatment. This qualitative research project studies patient’s perceptions of the quality of midwifery care and experiences of disrespect and abuse in maternal and child health services.

Method: This retrospective pilot study is conducted in Debrec Marks town, in Ethiopia’s Amhara region. We conduct 25 in-depth interviews with women who have given birth within the last 6–12 months at health facilities (~20) or at home (~5). Women are recruited at local clinics or through health extension workers. Interview questions cover provider-patient interactions, factors associated with patient satisfaction, experiences of mistreatment while receiving care and patient’s beliefs about how services should be delivered. Data are triangulated with information from interviews with third-year midwifery students and local midwives.

Results: Forthcoming: interviews are being conducted in March 2015, with results available by June 2015.

Conclusions: Results will inform the construction of the next National Census of Ethiopian Midwives, and in turn can help strengthen Ethiopian midwives training and provision of respectful patient-centered care. They are also relevant to other Sub-Saharan African countries carrying out task-shifting to expand access to services, and committed to strengthening the quality of care.

P0964
PERCEPTIONS OF PATIENTS’ RIGHTS AND WOMEN-CENTERED CARE AMONG MIDWIVES AND MIDWIFERY STUDENTS IN DEBRE MARKOS, ETHIOPIA
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Objectives: Ethiopia’s maternal mortality rate remains persistently high; 676 women die for every 100,000 live births in the country. Midwives are at the center of Ethiopia’s initiative to decrease maternal mortality by drastically scaling up population coverage of mid-level health care providers at public facilities in underserved areas. A poorly studied challenge of this scale-up is ensuring the quality and responsiveness of new services. Such study is crucial because poor service quality and fears of provider mistreatment are significant reasons for women’s low rates of maternal health service utilization, which in turn contributes, in turn contributes to high maternal mortality.

Method: The study conducts structured in-depth interviews with 16
third-year bachelor’s degree midwifery students from Debre Markos University and four midwives from health centers in the town. Interviews involve questions on the coverage of patient rights in midwifery training, respondent knowledge of patient’s rights, their experiences of provider-patient interactions, and their observations of patient mistreatment. Data are triangulated with information from interviews with local women who have recently given birth.

Results: Interviews will be completed in March 2015, and results available and analyzed by June 2015.

Conclusions: Study results will inform the construction of the 2016 Ethiopian National Census of Midwives, which will collect information to strengthen the patient-centered care components of national midwifery training and professional supervision activities in Ethiopia and thus increase provision of quality, respectful, patient-centered care.

P0965

KNOWLEDGE SHARING & BASIC ULTRASOUND SKILLS FOR MIDWIVES

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Objectives: This is a service improvement project through knowledge and skill sharing. Incorporating service design principles in the working of an organisation help them to stay ahead of competition. Recently uptake of service design principles have not filter down to hospital settings because of the lack of competition with the NHS hospitals.

The philosophy of service design is to bring improvement to health care delivery with changes to how roles & responsibilities are carried out and viewed. This change of views and responsibility can be improved by knowledge sharing. The same process have been adapted in many areas of hospital practise e.g. venepuncture.

Method: Access and utilisation of obstetrics ultrasound have led to improvement in maternal and new born outcomes by identifying potential risk earlier. The breech trial in 2000 has resulted in a reduction in skills of breech delivery across the developed world. The prevalence of undiagnosed breech in low risk pregnancy still remains the same while the risk associated with breech delivery remains the same. A decision was made by the clinical governance team to transfer basic ultrasound skills to frontline midwives. A simple training module & program was designed. The department invested on 3 more ultrasound machine for frontline use.

Results: 21/22 (95.5%) of labour ward senior midwives were trained, as well as 9/9 (100%) of DAU/ANC midwives, 5/5 (100%) of midwife lead unit senior midwives and 8/24 (33%) of community midwives were trained, the great majority never held an ultrasound probe before the training was commenced.

Conclusions: There was a significant reduction in undiagnosed breech presentation in labour and associated adversity six month into the project. The project demonstrated that knowledge sharing and skill transfer improve service delivery and care within maternity. Skill transfer helps team motivation, team building and improve service delivery.

P0966

ABORIGINAL MIDWIFERY: RECLAINING INDIGENOUS KNOWLEDGE THROUGH THE TRANSFORMATIVE POWER OF BIRTH

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Objectives:

- Indigenous birth knowledge
- The journey of obtaining funding for Aboriginal communities.

Method: A proposal was accepted for funding community-based Aboriginal midwives.

Results:

- Improvement in quality of care
- Increase cultural integration of identity

Conclusions: Funding for midwifery will increase overall health in Aboriginal communities.

Safe Surgical Techniques and Practices

P0967

PATTERN OF PERI-OPERATIVE COMPLICATIONS OF MYOMECTOMY IN A TERTIARY CENTRE

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Objectives: The general aim of the study is to determine the pattern of peri-operative complications of myomectomy and determinants of its safety at the University of Ilorin Teaching Hospital. Specific objectives were to determine the clinical presentations (signs and symptoms) of women undergoing myomectomy and peri-operative complications of myomectomy.

Method: The study was a retrospective review of case notes of gynaecological patients who had myomectomy between January 2010 and December 2013. The information was obtained from their case folders, anesthetist operation charts, gynaecological ward and operating theatre records. The intraoperative findings were reviewed and compared with preoperative findings by ultrasonography and physical examinations.

The pattern of intraoperative and postoperative complications was also assessed. The complications were divided into minor and major according to the criteria by Garry et al.

Results: The uterine size was >16 weeks’ size in 52.9% of the patients. Abdominal swelling was the commonest symptom in 120 women. Dysmenorrhoea was related to multiple myomas (p=0.017). Using Garry criteria, major complications occurred in 43.6%, while 23.5% of the patients had no complications; major intra-operative blood loss requiring blood transfusion was the commonest (21%). The mean blood loss was 630.88±392.42 ml, 42.9% were transfused with 2–4 units. Posterior uterine incision had the least blood loss (P=0.045). Pre-operative PCV ≥30% (P=0.013) was related to reduced blood loss. Uterine size of >16 weeks predicted major intra-operative bleeding, blood transfusion and fever (p=0.033).

Conclusions: Major intraoperative blood loss requiring blood transfusion was the commonest major complication. Uterine size of >16 weeks was a significant predictor of major intraoperative bleeding. Breach in the endometrial cavity, number of uterine incisions and pre-operative abdomino-plevic ultrasound scan were not determinants of intraoperative complications. Patients should be counselled pre-operatively on the risk of blood loss and possibility of blood transfusion depending on the size. Myomectomy is a safe procedure even if greater than 16 weeks by palpation.

P0968

CLINICAL OUTCOMES AND HEALTH-RELATED QUALITY OF LIFE WITH TOTAL VAGINAL versus SINGLE-PORT TOTAL LAPAROSCOPIC HYSTERECTOMY FOR UTERINE LEIOMYOMA AND ADENOMYOSIS

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Objectives: This study aimed to compare the surgical outcomes and health-related quality of life (HRQOL) of total vaginal (TVH) versus single-port total laparoscopic hysterectomy (SP-TLH) for uterine leiomyoma and adenomyosis.
Method: This study included 121 patients who had undergone TVH or SP-TLH for uterine leiomyoma and adenomyosis between April 2011 and July 2012. Surgical outcomes, complications, and HRQOL were compared between the 2 groups. Preoperative and postoperative HRQOL data from the 36-item Short Form questionnaire (SF-36) were recorded for all of the patients. Data were analyzed using the 2-sample t-test, the \( \chi^2 \) test, and Pearson’s correlation analysis.

Results: Fewer patients had a history of operation (\( p=0.02 \)), the operation time was shorter (\( p<0.01 \)), fewer patients had undergone combined surgical procedures (\( p<0.01 \)), and the complication rate was lower in the TVH group than in the SP-TLH group (\( p<0.01 \)). Overall, all SF-36 scales improved after surgery, except for the Social Functioning scale. There was no significant difference in any of the scales when the preoperative and postoperative scores were compared between the 2 groups.

Conclusions: Compared to SP-TLH, TVH is a safe, time-saving, and scar-free surgery in selected patients and has equivalent effects on HRQOL.

**P0969**

TAMOXIFEN FOR THE PREVENTION OF POSTOPERATIVE INTRA-ABDOMINAL ADHESIONS: A NOVEL METHOD

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Objectives: Postoperative intra-abdominal adhesion (PIAA) is a common complication following abdominal surgeries. Up to now, no practical method or device has been proven to be the gold standard in PIAA formation prevention. This study was designed to evaluate the effects of oral and intraperitoneal tamoxifen citrate on PIAA formation prevention.

Method: Forty eight guinea pigs were included in 4 groups. Laparotomy performed and a part of small bowel was abraded using wet gauze for induction of peritoneal adhesion. In group 1, adhesion induction was performed with no treatment. In the second group, tamoxifen citrate was administered by orogastric gavage postoperatively. Group 3 underwent adhesion induction and then intraperitoneal administration of tamoxifen. Group 4 underwent adhesion induction and intraperitoneal administration of tamoxifen citrate and then tamoxifen was administered by orogastric gavage postoperatively. Laparotomy and grading of adhesions was performed on the 8th postoperative day according to the Adhesion Characteristic and Adhesion Tenacity scoring system.

Results: The control group was significantly different with each other groups (\( p<0.008 \)) which means usage of tamoxifen (oral or intraperitoneal or both), significantly reduces adhesion formation after laparotomy. Intraperitoneal tamoxifen (group 3) was more effective in prevention of adhesion formation than group 2 with oral tamoxifen application (\( p=0.006 \)). Also administration of both oral and intraperitoneal tamoxifen (group 4) reduces adhesions significantly (\( p=0.002 \)) in comparison with just oral one (group 2) but it makes no difference (\( p=0.625 \)) with only intraperitoneal tamoxifen (group 3).

Conclusions: This study indicated that tamoxifen significantly reduces PIAAs and intraperitoneal application is more effective than oral administration. This study shows that preventive effects of intraperitoneal application of tamoxifen will not improve when oral tamoxifen is added postoperatively. More studies with focus on evaluation of probable side effects and also performing clinical trials for evaluating tamoxifen for preventing PIAAs is strongly suggested.

**P0970**

LABIA MINORA HYPERTROPHY: OUTPATIENT SURGERY WITH THE MODIFIED TECHNIQUE

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Objectives: This work aims to propose the surgical correction for patients with minimal morbidity. Hypertrophy of the labia minora is a cause of functional and aesthetic discomfort. It’s considered constitutional, but also can come from external trauma, impaired lymphatic drainage and hormonal changes. Surgical repair is performed at the hospital environment, generating additional costs and time for the patient. The ambulatory surgical correction of the deformity was made under local anesthesia, using a modified technique.

Method: Sixty three patients were selected from January 01, 2013 to February 01, 2015. All patients were submitted to a preoperative evaluation. Everyone was instructed to use topical anesthetic before the procedure. In gynecological position, after antisepsis and asepsis, was administered Lidocaine Hydrochloridewith Hemitrarratropine, in a gum needle on the labia minora, and proceed an incision beginning under the clitoris and ending at the inner portion. Hemostasis and continuous suture were performed with absorbable suture line, using intradermal stitches. Ambulatory patients were immediate discharged and instructed to use prophylactic antibiotics and analgesics.

Results: All results were satisfactory, just one case had a unilateral hematoma.

Conclusions: The outpatient surgery with the modified technique proved to be executable, inexpensive, with minimal morbidity and immediate return of the patients to their usual activities, also with functional and aesthetic satisfaction.

**P0971**

CLINICAL OUTCOMES OF MAGNETIC RESONANCE-GUIDED FOCUSED ULTRASOUND SURGERY FOR UTERINE MYOMAS: LONG TERM FOLLOW-UP

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Objectives: Magnetic resonance-guided focused ultrasound surgery (MRgFUS) for uterine myomas is a minimally invasive procedure that produces a tightly focused, high-intensity ultrasound beam within the targeted myoma. The acoustic energy converts to thermal energy at the focal point, which creates a thermal coagulation region with a temperature rise ranging from 60°C to 90°C in a matter of seconds. MRgFUS is relatively a new treatment method and the long term treatment effects are not fully discussed. We present the long term symptom improvement and additional intervention ratio following MRg-FUS for uterine myomas.

Method: A total of 209 Japanese women underwent MRgFUS between 2004 and 2014 using the ExAblate 2000 system. The myomas were classified into 2 types on the basis of the signal intensity of T2-weighted MR images: low signal (LOW) or high signal (HIGH) myomas. Subjective symptoms were evaluated using the symptom severity score (SSS) questionnaire, in which a higher score indicates worse symptoms (0 to 100 point). The SSS was examined before and after the treatment (3, 6 months, and 1, 2, 4, 7 years). Additional post-MRgFUS treatments were recorded. These data were collected based on medical records and postal mail.

Results: The mean SSS value before MRgFUS of LOW group without additional interventional treatment was 20.01±6.93, which diminished significantly during 3 months to 7 years after treatment (One-way ANOVA). Of the 189 LOW patients, 50 required additional interventional treatment (20 hysterectomy, 11 myomectomy, 3 TCR-M, 2...
(UAE, 5 surgery for other disease and 3 unknown surgery), and, of the 20 HIGH patients, 9 required additional treatment. The additional intervention ratio was 20.6% for LOW group and 40% for HIGH group at 36 months post MRgFUS. Eight patients get pregnant after MRgFUS; three spontaneous abortions and five live births.

Conclusions: Significant reduction in SSS values of LOW group was noted following MRgFUS. Although additional intervention ratio after MRgFUS is rather high, MRgFUS is one of the treatment options for symptomatic uterine myomas. It is therefore concluded that MRgFUS could be an appropriate treatment method for patients with low signal uterine myomas rather than high signal uterine myomas who wish for future children or who are in peri-menopausal period.

P0972
A VERY RARE CASE OF VULVAL SWELLING (HUGE PERINEAL HERNIA)
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Objectives: To stress that, rare cases should be always expected in clinical practice.

Method: A case report of a virgin aged 35 years complaining of progressive painless huge swelling arising from the left labia of 6 months duration. On examination, huge mass heterogeneous consistency with fluid content. Investigations and imaging techniques were unremarkable. Degenerated huge lipoma of the vulva was the provisional clinical diagnosis. Dissection of the skin was done and the content was suspected to be bowl and confirmed after laparotomy. The diagnosis of perineal hernia was confirmed and appropriate repair was done.

Results: The hernia was perfectly corrected as the wound was healed nicely and the patient was discharged after one week.

Conclusions: Meticulous surgical techniques should be always respected. Rare cases should be always expected. The culture, non-awareness and social conditions are the main causes of the late of the medical consultation.

P0973
CLINICAL STUDY FOR SONOGRAPHY-GUIDED HIGH-INTENSITY FOCUSED ULTRASOUND ABLATION OF UTERINE MYOMA
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Objectives: This study is to evaluate the clinical efficacy of US-guided high-intensity focused ultrasound (HIFU) ablation of uterine myoma.

Method: 89 patients with symptomatic uterine myoma underwent US-guided HIFU ablation, between October 2013 and April 2014 in St. Peter’s Hospital. The study group designed by 34 patients who were followed up for 6 months after treatment. We assessed the differences volume at baseline and 6 months after treatment. Volume of myomas was checked using contrast-enhanced T1-weighted image on MRI and calculated using the ellipsoid formula: \( V = \frac{4}{3} \pi \times D_1 \times D_2 \times D_3 \times 0.523 \) (\( D_1 \): longitudinal, \( D_2 \): anteroposterior, \( D_3 \): transverse). The percentage of decrease in fibroid volume was calculated by \( 100 \times \frac{V_{pretreatment} - V_{posttreatment}}{V_{pretreatment}} \). Also we evaluated symptomatic improvement.

Results: Mean age of patients was 42.27–6.12 (23–53) years. Locations of myomas targeted were intramural type 26 cases, anterior 13 cases, posterior 6 cases, lateral 4 cases, fundus 3 cases, submucosal type 5 cases, subserosal type 3 case. We divided 3 groups, below 100 cm³, 100–200 cm³, above 200 cm³ on volume of myoma at baseline (cm³). Mean volume of contrast-enhanced T1-weighted image on MRI was 338.16 (37.98–921.43) cm³ before HIFU and 83.29 (23.4–371.1) cm³ 6 months after HIFU treatment. Reduction rate was 75.37%. Symptomatic improvement was observed in dysmenorrhea (72%), hypermenorrhea (81%), lower abdominal discomfort (37%), frequency (27%). No severe complications like bowel injury, bladder injury, infection was not observed.

Conclusions: US-guided HIFU treatment appears to be a effective treatment to ablate uterine myoma.

P0974
THE EFFECT OF INTRAVENOUS INFUSION OF ASCORBIC ACID (VITAMIN C) ON INTRAOPERATIVE BLOOD LOSS IN WOMEN UNDERGOING LAPAROSCOPIC MYOMECTOMY
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Objectives: To determine whether intravenous infusion of ascorbic acid reduce the intraoperative blood loss in women undergoing laparoscopic myomectomy.

Method: Randomized, parallel, double-blinded, placebo-controlled trial including 50 women undergoing laparoscopic myomectomy in a tertiary care center was conducted. Women with number of myoma <4 and largest diameter of myoma <9 cm were eligible. Case-control ratio was 1:1 and stratification factor was surgeon. From 30 minutes before surgery, ascorbic acid 2 g or placebo was administered intraoperatively for 2 hours. As a primary endpoint, intraoperative blood loss was estimated from the difference between the volume of fluids used for suction and irrigation of abdominal cavity during surgery. Surgery time and hemoglobin drop after surgery were examined as secondary endpoints.

Results: Among 50 women who randomized, 1 woman in case arm and 3 women in control arm were excluded due to withdrawal of consent (n=1), cancellation of surgery (n=1), and non-measurement of primary endpoints (n=2). Baseline and surgery characteristics were balanced between two arms. Intraoperative blood loss in case arm (176±193 ml) was not different from that of control arm (169±227 ml, p-value = 0.92). In addition, surgery time (95±29 minutes in case arm; 111±52 minutes in control arm; p-value = 0.23), hemoglobin drop after surgery (1.9±1.5 g/dL in case arm; 1.4±1.4 g/dL in control arm) were similar between two arms. No adverse event related to intervention was detected.

Conclusions: Intravenous infusion of ascorbic acid did not reduce the intraoperative blood loss in women undergoing laparoscopic myomectomy.

P0975
PREGNANCY OUTCOME AFTER ULTRASOUND-GUIDED HIGH-INTENSITY FOCUSED ULTRASOUND (USGHIFU) ABLATION FOR THE TREATMENT OF PATIENTS WITH UTERINE FIBROIDS: A SINGLE CENTER EXPERIENCE
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Objectives: The aim of this study was to evaluate the ultrasound-guided high-intensity focused ultrasound (USgHIFU) ablation for the treatment of patients with uterine fibroids and pregnancies post the procedure.

Method: This prospective study was performed from April 2011 to May 2014. A total of 974 patients with symptomatic uterine fibroids were included. Among them, 232 patients expressed their wish to become pregnant. USgHIFU treatment was performed under conscious sedation using JC/JC200 HIFU tumor therapeutic system. Informed consent was obtained from every patient. All the adverse effects were recorded.

Results: Thirty-seven pregnancies in 36 (15.5%) women occurred after USgHIFU, with 1 spontaneous abortion. Among the 36 women, average age 32.0±4.5 (range: 25–42) years; number of fibroids from 1 to 3 in these patients. The median volume of the fibroids 22.9 (range: 0.8–349.8) cm³. The average non-perfused volume ratio 83.5±7.9%
Termination of Pregnancy

P0976
SUCTION CURETTAGE AS FIRST LINE TREATMENT IN CASES WITH CESAREAN SCAR PREGNANCY: FEASIBILITY AND EFFECTIVENESS IN EARLY PREGNANCY
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Objectives: To discuss the management options for cesarean scar pregnancies in a singleton center. In current study we discussed the current management options for cesarean scar pregnancies (CSPs) based on our 6 years of experience.

Method: A retrospective evaluation of 26 patients with cesarean scar pregnancies in our clinic during a 6-year period was discussed. The diagnostic criteria for CSP were: 1) empty uterus; 2) empty cervical canal; 3) anteriorly-located gestational sac with or without cardiac activity and a diminished myometrium layer at the level of the previous scar; and 4) expansion of the gestational sac to the bladder, surrounded by the myometrium and fibrous tissue of the scar. Suction curettage was performed as a first-line treatment in patients who met the following criteria: ≤8 weeks gestation; intervening myometrial thickness ≥2 mm; hemodynamically stable patient.

Results: The mean maternal age was 33.4 years and the average number of previous cesarean deliveries was 2.2. The average gestational age was 47.4 days. The average myometrial thickness was 2.9 mm. The mean β-hCG level for all patients was 26,981±28,997 mIU/mL. Twenty-two (84.6%) women with CSPs were initially treated surgically (curettage and/or hysterotomy) and 4 (15.4%) women were treated medically. Suction curettage was performed in 19 patients as first-line treatment. Four of the patients needed an additional Foley balloon catheter placement because of persistent vaginal bleeding. Finally, the success rate of suction curettage was 16 of 19 (84.2%).

Conclusions: Delays in early detection of CSPs are associated with life-threatening complications, including uterine rupture with massive hemorrhage. Because of this outcome, an early diagnosis is a key factor for safe management of CSPs. Hemodynamic instability and abandoned bleeding is an indication for urgent surgery. This can be performed via laparoscopy or laparotomy, depending on surgical skills. The early diagnosis of a CSP (≤8 gestational weeks) with a β-hCG level ≤17,000 mIU/mL and a myometrial thickness >3 mm can be treated with suction curettage with or without uterine Foley balloon placement as a curative treatment.

P0977
RANDOMIZED TRIAL OF MI FeyPRISTONE AND BUCCAL MISOPROSTOL VS MISOPROSTOL ALONE FOR MEDICAL ABORTION
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Objectives: To evaluate the efficacy and safety of mifepristone and buccal misoprostol versus misoprostol alone in medical abortion of ≤56 days.

Method: One hundred pregnant women having gestational age ≤56 days were randomized to group A and group B. In group A, patients received 200 mg mifepristone on day 1, followed by buccal misoprostol 800 μg on day 2, and in group B patients received 800 μg misoprostol alone on day 1. Complete abortion was the principal outcome measure. Secondary outcome measures were side-effects and acceptability.

Results: Forty-six (92%) patients in group A and 37 (74%) patients in group B aborted successfully (p value 0.017). Four (8%) patients in group A and eight (16%) patients in group B had incomplete abortion with retained products of conception. In group B, three (6%) patients had missed abortion and two (4%) patients had continued pregnancy whereas none of the patients in group A had missed abortion or continued pregnancy. The overall method acceptance was 100% whereas the overall route acceptance was 83%.

Conclusions: Mifepristone-alone regimen is a low-cost regimen as compared to mifepristone/misoprostol regimen. Though the efficacy of mifepristone followed by buccal misoprostol is better, buccal misoprostol alone can be used for termination of pregnancy in patients where mifepristone is either unavailable or contraindicated.

P0978
REFINING THE PARACERVICAL BLOCK TECHNIQUE FOR PAIN CONTROL IN FIRST TRIMESTER SURGICAL ABORTION
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Objectives: The majority of first trimester surgical abortions are performed with a paracervical block (PCB). We previously established the benefit of a specific PCB technique: 20 mL 1% buffered lidocaine, 4-sites with a 3-minute wait prior to cervical dilatation. This had been the first PCB study to evaluate patients without IV medications and utilizing a sham-PCB control group. As the PCB is painful and the wait adds time, further refinement was warranted.

Method: This was a randomized, single-blinded non-inferiority trial in 2 phases. In Phase 1, women ≤11 weeks gestational age received a 20 mL 1% buffered lidocaine 4-site PCB with either a 3 minute wait between PCB injection and dilatation or no wait. Phase 2 compared a 4-site with a 2-site PCB. The primary outcome was dilution pain (100 mm visual analogue scale (VAS)). Secondary outcomes included pain at additional time points, nervousness, satisfaction, and adverse events.

Results: Both phases were completed with full enrollment (total n=332). No wait was not inferior to waiting 3 minutes prior to cervical dilatation for dilution pain (63 mm [SD 24 mm] vs 56 mm [SD 32 mm] on VAS) or pain at other time points. A 4-site PCB decreased dilution pain compared to a 2-site block (60 mm [SD 30 mm] vs 68 mm [SD 21 mm] on VAS; p =0.034).

Conclusions: Foregoing the wait time between PCB administration and cervical dilatation does not result in inferior pain control; while a 4-site PCB might improve pain control.

P0979
PARACERVICAL BLOCK AS PAIN TREATMENT DURING SECOND TRIMESTER MEDICAL TERMINATION OF PREGNANCY
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Objectives: To investigate the effect of local anaesthesia with paracervical block (PCB) for pain relief during second trimester medical abortion.

Method: Randomised Controlled Trial. 112 women undergoing second trimester medical abortion are randomized to receive either local anaesthesia or placebo injected paracervically one hour after the start of misoprostol administration. Endpoints are pain intensity mea-
sured by visual analogue scale (VAS), morphine consumption and the time form induction-to-expulsion.

**Results:** Recruitment is expected to be completed end of March. Preliminary results will be presented at the FIGO-conference.

**Conclusions:** The study will give important information regarding the use of PCB in second trimester medical abortion.

### P0980
**PROGESTIN-BASED CONTRACEPTIVE ON THE SAME DAY AS MEDICAL ABORTION**

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**Objectives:** The primary purpose of this study was to determine the efficacy of medical abortion, defined as the complete passage of products of conception, when a progestin-based contraceptive with the etonogestrel subdermal implant (SDI) or depot medroxyprogesterone acetate (DMPA) injection for contraception was given on the same day as an antiprogestin, mifepristone, for medical abortion up to 63 days gestation.

**Method:** This is a retrospective chart review of pregnant women aged 15 to 49 who underwent an elective medical abortion with mifepristone and misoprostol between August 2013 and July 2014 at two hospitals in KwaZulu Natal, South Africa. All women underwent each study site’s standard medical abortion protocol with oral mifepristone 200 mg in the clinic followed by sublingual misoprostol 800 μg 24–48 hours later at home. The chosen method of contraception with the etonogestrel SDI or DMPA injection was administered immediately after mifepristone consumption. Medical abortion completion or failure was then assessed two weeks later either in the clinic or by phone.

**Results:** 89 charts were analyzed for this study. In this population of women who received the etonogestrel SDI or DMPA injection for contraception on the same day as mifepristone for medical abortion, 97.8% were noted to have a completed abortion, with 2.2% requiring surgical dilation and curettage for medical abortion failure. There was no statistically significant difference between the medical abortion failure rate in our cohort when compared to historical medical abortion failure rates (5.2%) without progestin contraceptives (p=0.22) using the same mifepristone/misoprostol regimen. Patient’s age, gestational age and parity were not statistically related to medical abortion failure.

**Conclusions:** In our study, providing a progestin-based contraceptive with the etonogestrel SDI or DMPA injection on the same day as mifepristone for medical abortion did not affect efficacy. Larger prospective studies, including acceptability and satisfaction studies are needed. However, a one-visit approach with contraceptive administration on the same day as medical abortion should be considered, especially in lower resource settings where follow up rates may be low and complications of a future unintended pregnancy exceedingly high.

### P0981
**GESTATION AGE ASSESSMENT FOR MA SERVICES**

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**Objectives:** Providing abortion services by medical methods presumably is dependent mostly on the correct estimation of the uterine size before, during and after the abortion process and ruling out ectopic pregnancy. A study was thus conducted to estimate the number of pelvic bimanual examinations required to get proficient in uterine size estimation for provision of medical abortion (MA).

**Method:** 44 doctors undergoing Comprehensive Abortion Care training at 19 training centers across states in India, participated in the study. Local ethical clearance was got from a participating medical college, for the study. The data included the period of amenorrhea or date of last menstrual period (LMP) as given by the woman, the uterine size estimated by the trainee doctor and confirmation of uterine size, as done by the master trainer from the training center. The data was analyzed to determine the experience level at which the uterine size assessed by the trainee doctor and the master trainer was the same.

**Results:** There is a wide variation in the number of pelvic examinations that trainees (MBBS doctors) require to achieve accuracy in assessing gestation age. A number of factors can be attributed to this variation namely; the personal skill of the trainee, previous exposure of the trainee in assessing gestation age and influence of the trainer as a mentor.

**Conclusions:** The average number of assessment’s at which the MBBS doctor’s assessment matches that of the trainer’s is 13 pelvic examinations. At the average 13th examination there is consistency of correct assessment of gestational age.

### P0982
**INDUCED ABORTIONS AND THE METHODS USED FOR INDUCTION IN SRI LANKA: HEALTHCARE PROVIDERS’ PERSPECTIVES**

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**Objectives:** Sri Lanka is a country where, legally, an abortion can be performed only to save the life of the mother. However, research conducted in country reveals several hundreds of illegal abortions are being conducted daily outside hospitals. Though hospital statistics show that mortality from septic abortions have drastically reduced overtime, healthcare providers continue to report morbidity from induced septic abortions. This study was conducted with the objective of describing the pattern of presentation of induced abortion relation admissions to hospitals in Sri Lanka and understands the methods used over time.

**Method:** The study was conducted in five Tertiary Level hospitals in the Western province including three Teaching Hospitals as part of a World Health Organization Multi Country Survey. A qualitative survey with in-depth interviews was conducted using a moderator guide among healthcare providers serving in gynecology units with over five years experience in treating women presenting with abortions. The moderator guide was pretested in a similar setting. In-depth interviews were conducted till theoretical saturation was reached and transcripts developed. Thematic analysis was conducted by the research team using NVivo software on the developed transcripts.

**Results:** Twenty one doctors including consultants in Gynaecology and Obstetrics and nine nurses were interviewed. Number of admissions with induced abortions and complications was found to decrease overtime. “Use of drugs” was identified as the commonest method of induction with “Misoprostol” being the drug of choice which was available in pharmacies and private providers. Majority knew “Misoprostol” regimes used to induce abortion. Care providers with over ten years experience described a trend in the reduction of mechanical methods used and drugs being the method of choice. Majority of women seeking induction was identified as married women who had completed their families.

**Conclusions:** Sri Lanka is a country with restrictive abortion laws and “Misoprostol” was not a registered drug at the time of the survey. However, the drug was found to be available in pharmacies and private providers with “Misoprostol” being the commonest method women resort to for induction of abortion. Though family planning services are readily available, married women with unmet need in family planning appear to be the largest group of abortion seekers. Further research on the use of drugs and strengthening family planning services is recommended.
P0983
ACCEPTABILITY OF HOME-ASSESSMENT OF OUTCOME AFTER MEDICAL ABORTION IN A LOW-RESOURCE SETTING IN RAJASTHAN, INDIA: A RANDOMIZED CONTROLLED, NON-INFERIORITY TRIAL

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Objectives: To assess women’s acceptability of medical abortion and simplified follow-up using a low-sensitivity pregnancy test two weeks after medical abortion.

Method: This study was a randomised, controlled, non-inferiority trial. Women were eligible if they sought abortion with a gestation up to 9 weeks, lived within defined study area and agreed to follow-up. Women were ineligible if they had known contraindications to medical abortion, haemoglobin < 85 mg/dl and were below 18 years. Abortion outcome assessment through routine clinic follow-up by a doctor was compared with home-assessment using a low-sensitivity pregnancy test and a pictorial instruction sheet. Women’s acceptability was measured as satisfaction, expectations, comparison with previous abortion experiences and future preference of method, location of misoprostol and location of follow-up.

Results: 731 women were randomized to the clinic follow-up group (n=353) or home-assessment group (n=378). 623 women were successfully followed up, 96% of women were satisfied and 95% found the abortion better or as expected, with no difference between study groups. Knowing the abortion outcome and having done the pregnancy test was associated with increased satisfaction. More women in the home-assessment group chose home-assessment as future preference as compared with the clinic follow-up group.

Conclusions: Medical abortion is highly accepted and home-assessment fulfills criteria of acceptability among women and can be implemented in low-resource, rural settings.

P0984
COMPARISON OF SURGICAL MANAGEMENT WITH MANUAL VACUUM ASPIRATION AND MEDICAL MANAGEMENT WITH MISOPROSTOL FOR EARLY PREGNANCY FAILURE IN NNEWI, SOUTH-EAST NIGERIA

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Objectives: Misoprostol is increasingly being used to treat women who have early pregnancy failure. This study determined the efficacy and safety of surgical management of early pregnancy failure with manual vacuum aspiration (MVA) versus medical management with misoprostol.

Method: This study was done in Chimex Specialist Hospital, Nnewi, south-east Nigeria. A total of 43 women with first-trimester pregnancy failure (anembryonic gestation or incomplete spontaneous abortion) were randomly assigned to receive 800 μg of misoprostol vaginally or to undergo manual vacuum aspiration (standard of care) in a 5:1 ratio. The misoprostol group received treatment on day 1, a second dose on day 3 if expulsion was incomplete and MVA on day 8 if expulsion was still incomplete. Surgical treatment (for the misoprostol group) or repeated aspiration (for the vacuum-aspiration group) within 30 days after initial treatment constituted treatment failure.

Results: Thirty-six and seven women were assigned to receive misoprostol and surgical treatment respectively. Of the 36 women assigned to receive misoprostol, 77.8% (28/36) had complete expulsion after first dose of misoprostol (by day 3) and 2.8% (1/36) after second dose of misoprostol (by day 8). Seven women had MVA after repeat of misoprostol, hence treatment failed in 19.4% (7/36) of misoprostol group and none (0/7) in surgical group (P<0.001). There were no reported adverse effects in any of the groups. None of the women received any contraceptive method prior to conception or supplementary pain management after the pregnancy evacuation.

Conclusions: Treatment of early pregnancy failure with 800 μg of misoprostol vaginally is a safe and effective approach in Nigeria, with a success rate of approximately 80%. Larger studies in Nigeria are needed to compare these findings.

P0985
OUTCOME OF EXPECTANT MANAGEMENT OF SPONTANEOUS FIRST TRIMESTER MISCARRIAGE. A RETROSPECTIVE STUDY

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Objectives: To determine the effectiveness and safety of expectant management for early pregnancy loss.

Method: A retrospective descriptive study of 20 patients with a diagnosis of miscarriage of 10 weeks gestation or less were managed expectantly by a single staff of the Department of Obstetrics and Gynecology from January 2012 to June 2014. Patients who were given medications to aid in the expulsion of products of conception or those who underwent surgical intervention were excluded from this study. Patients’ charts were collected and reviewed. The data analyzed were the duration from time of diagnosis of missed miscarriage to time of expulsion of products of conception and the complications of expectant management.

Results: Eighteen (90%) patients had complete expulsion of the product of conception while 2 (10%) patients had incomplete expulsion. Two (10%) patients had expulsion of the product of conception within 1 week after the diagnosis of miscarriage; 6 (30%) patients in 2 weeks; 8 (40%) patients in 3 weeks; 2 (10%) patients in 4 weeks; 1 (5%) patient in 5 weeks and 1 (5%) patient in 16 weeks. The complications noted were heavy bleeding in 3 patients and anemia in 1 patient. Two patients had incomplete expulsion for which completion curettage was done.

Conclusions: Patients can now be encouraged to try and to persevere with expectant management since high completion rate was noted by 2–3 weeks from time of diagnosis. The lower rate of complications in women who chose expectant management is also reassuring with the risk of infection or hemorrhage being low.

P0986
HIGH-INTENSITY FOCUSED ULTRASOUND COMBINED WITH SUCTION CURETTE FOR THE TREATMENT OF CESAREAN SCAR PREGNANCY

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Objectives: To retrospectively evaluate the safety and feasibility of high-intensity focused ultrasound (HIFU) treatment combined with suction curettage under hysteroscopic guidance for cesarean scar pregnancy (CSP).

Method: 53 patients with definite CSP were treated with HIFU followed by suction curettage under hysteroscopic guidance. All the patients received one session of HIFU ablation under conscious seda-
tion. Suction curettage under hysteroscopic guidance was performed at an average of 2.9 days after HIFU ablation. Blood flow of pregnancy tissue before and after HIFU, intraoperative blood loss in suction curettage and hysteroscopy procedure, time for β-human chorionic gonadotropin (β-hCG) to return to normal level, time for normal menstruation recovery were recorded.

Results: Immediately after HIFU treatment, color Doppler ultrasound showed that the fetal cardiac activity disappeared and the blood flow in the pregnancy tissue significantly decreased. All the patients underwent suction curettage under hysteroscopic guidance after the treatment of HIFU, the median volume of blood loss in the procedure was 20 mL (range: 10–400 mL). The average time for menstruation recovery was 35.1±8.1 days (range: 19–60 days). The average time needed for serum β-hCG to return to normal levels was 27.5±6.4 days: 12–40 days. The average hospital stay was 7.8±1.5 days (range: 5–11 days).

Conclusions: Based on our results, it appears that HIFU combined with suction curettage under hysteroscopic guidance is safe and effective in treating patients with CSP at gestational ages shorter than 8 weeks.

P0987
WHAT HAPPENS WHEN WE ROUTINELY GIVE DOXYCYCLINE TO MEDICAL ABORTION PATIENTS?
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Objectives: Routine provision of antibiotics following medical abortion is common, yet practitioners and professional societies differ on its utility. Our study compares the side effects experienced by women who were prescribed doxycycline following medical abortion to those who were not and assesses the adherence to a prescribed regimen.

Method: This study was a prospective, observational, open-label study from a convenience sample in the United States. Women seeking medical abortion were enrolled in nine study sites including four clinics that routinely prescribe a seven-day course of doxycycline (Doxycycline Arm) and five clinics that do not routinely prescribe any antibiotics (No Doxycycline Arm). Seven to fourteen days following the administration of mifepristone, women were asked to self-administer a computer-based survey. The survey asked about side effects experienced (both arms) and adherence to the regimen (Doxycycline Arm only).

Results: Five hundred eight-one women were enrolled (278 in the Doxycycline Arm and 303 in the No Doxycycline Arm). There was a trend toward increased nausea in the Doxycycline Arm (47.8% vs. 40.9%; p=0.056) and a statistically significant difference in vomiting (25.2% vs. 18.5%; p=0.032). Almost all women in the Doxycycline Arm reported taking at least one pill, however only 28.3% reported “perfect adherence”. The most common reasons reported for taking fewer pills than instructed were that participants forgot to take them.

Conclusions: Women who were prescribed doxycycline following medical abortion reported moderate adherence and experienced significantly more vomiting than their counterparts. In the absence of robust evidence that prescribing 7 days of doxycycline following medical abortion is effective at reducing serious infections, these data can assist the public health community with deciding whether routine provision is the most appropriate strategy.

P0988
ABORTION PRACTICES IN NEPAL: WHAT DOES EVIDENCE SHOW?
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Objectives: Globally, unsafe abortion accounts for 13% maternal deaths. Annually, five million women are admitted to hospitals as a result of unsafe abortion and three million women experience complications following unsafe abortion. In Nepal too unsafe abortion still significantly contributes to maternal morbidity and mortality. In 2002, responding to the public voices, Nepal’s Parliament granted women’s legal access to safe abortion services. This meta-analysis examines the results of different studies on abortion practices in Nepal so that the finding is used in policymaking and programs aimed at reducing unsafe abortion.

Method: Study results published between 1990 and 2014 and accessed through PubMed, Lancet, Medline, WHO and Google Scholar were analyzed. Keywords used in the search, included legalization of abortion, Nepal, safe abortion, and unmet need. Case reports and grey literature were excluded.

Results: At the end of 2014, more than half million women sought safe abortion. Despite considerable progress, unsafe abortion still prevails in Nepal as it has been estimated that they constitute half of all abortions undertaken every year. Published literature showed that there is still an unmet need for safe abortion services in Nepal. Furthermore, while the overall awareness of the legality of abortion was high, public attitude was negative toward women seeking abortion services, and unmarried women were at risk for seeking unsafe abortions due to socio-cultural norms, values, and stigma.

Conclusions: Increased access to safe abortion service is needed to address the unmet need for safe abortion services in Nepal. Public attitude changing programs or policies and vulnerable population (e.g. unmarried women seeking safe abortion) friendly programs are needed.

P0989
DETERMINING THE ACCURACY OF GESTATIONAL DATING AMONG WOMEN PRESENTING FOR AN ABORTION: RESULTS FROM GREATER ACCRA AND EASTERN REGION IN GHANA
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Objectives: In Ghana, despite having a relatively liberal abortion law, evidence shows that women are using misoprostol for induced abortion outside of clinical settings. An understanding of women’s ability to date their gestations is critical for informing efforts to safely expand access to medical abortion (MA) outside of facilities. The objective of this study was to determine the proportion of women presenting for an abortion, who could accurately determine whether their pregnancy was <13 or ≥13 weeks gestation using a gestational wheel.

Method: We conducted a cross-sectional study with women attending four facilities in Ghana. Interviewers administered the participant questionnaire and then women were seen by a provider who independently assessed gestational age (GA) via bimanual exam. Descriptive statistics are presented for women’s recall of LMP and use of the wheel. Using the providers’ clinical dating as a reference standard, we calculated the proportion of participants who accurately determined that their pregnancy was <13 or ≥13 weeks using a gestational wheel.

Results: Our final sample size was 780 with a participation rate of 98%. Twenty-eight percent of respondents were able to use the wheel without verbal instructions. The other 72% were provided with verbal instructions after trying to complete the task on their own. Sixty percent said the wheel was easy to use. Overall agreement for GA between women and providers was 95% (94% agreement GA <13 weeks, 1% agreement GA ≥13 weeks). The remainder of women fell into a “low risk disagreement group” and a “high risk disagreement group”, 1% and 4% respectively.

Conclusions: With either no or simple step-by-step instructions, almost all women were able to use a gestational wheel to date their pregnancies. This simple tool may aid women in the safe use of mison-
prostol in the community, a harm reduction strategy to decrease morbidity and mortality from unsafe abortion.

**P0990**

DEVELOPMENT OF POLICIES, STANDARDS AND GUIDELINES FOR THE REDUCTION OF MATERNAL MORBIDITY AND MORTALITY IN KENYA

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Objectives: 1. To highlight the process of the development of the policies, standards and guidelines document in Kenya. 2. To give an overview of these policies, standards and guidelines in relation to the “Big Five” causes of maternal deaths in Kenya. 3. To make recommendations to other countries contemplating developing such document.

Method: A smaller task force was formed and mandated to review the older document and consider all the major causes of maternal mortality and morbidity. The Task Force held several review meetings. A national stakeholders meeting was held in November 2013 and representatives of public and private health sectors, faith-based organizations, and civil society groups to discuss the document. A larger validation meeting was held early January 2014. The group recommended the chapter on abortion be reviewed. This was successfully done in February 2015. A second and final stakeholders meeting is planned for April 2015 to finalize the document.

Results: A nationally agreed document compliant with the reproductive health supportive Constitution of Kenya, 2010, will be in place for use in reducing maternal morbidity and mortality in Kenya. It is hoped that the MOH, the private sector and NGOs will work hand in hand to fast-track the reduction of maternal mortality towards achievements of MDG number 5 and beyond.

Conclusions: Relevant technical experts, professional associations and academia should initiate and spearhead the process of improving policies standards and guidelines. Involvement of relevant stakeholders is essential in developing national health policies standards and guidelines.

**P0991**

FAMILY PLANNING CURRICULUM TRENDS IN RYAN RESIDENCY PROGRAMS

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Objectives: To identify which aspects of family planning curricula are potentially perceived as most helpful as per experiences and opinions of both trainees and instructors in Ryan Programs. Specific areas queried include: procedural exposure in early residency regardless of case complexity versus a graduated approach, utility of ultrasound, patient volume, approach to anesthesia, procedure settings, and procedure technique.

Method: Surveys created for resident and attending physicians and piloted at our home institution, a tertiary care academic medical center in MA. The edited survey was emailed to Ryan Program site coordinators for distribution to all resident and attending physicians involved in the family planning curriculum. REDCap utilized for data collection and storage; data exported to STADA for analysis.

Results: Seventy-five programs contacted with an expected response rate of 20% for an electronic survey. Responses will be compared between instructors and learners, across and within programs, and based on various other demographics such as gender, race, age, marital status, and geography.

Conclusions: Prior studies have demonstrated increased family planning competence for participants in Ryan Residency programs. The results of this survey will set the stage for standardization of Ryan program curricula domestically with potential implications for worldwide expansion to other family planning training programs.

**P0992**

MEDICAL ABORTION – LET US GIVE QUALITY CARE! MAKING MEDICAL ABORTION SAFER AND MORE EFFECTIVE IN LOW RESOURCE POPULATION. A COMPARATIVE STUDY FROM PRIVATE HOSPITAL, NAGPUR INDIA

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Objectives: To study the benefit of oral Iron supplementation and Prophylactic antibiotics to prevent Anemia after medical abortion. To reduce the morbidity of Anemia after medical abortion.

Method: Case control study of 200 patients opting for medical abortion (pregnancy upto 7 weeks, hemoglobin above 10 gm/dl included). In India, Mifepristone 400 mg one tablet and 4 Misoprostol tablets of 200 mcg combination KIT available (WHO approved) Rukmini hospital – government approved MTP-abortion centre allowed to dispense. Study group (100) given medical abortion kit with doxycycline 100 mg for 3 days metrogyl 400mg bd – 5 days & iron tablets bd – 21 days. Control group given only abortion pills kit. Ultrasound done at 10–15 days. Hemoglobin estimation done after 21 days. Statistical analysis done using percentages.

Results: Study group only 16% had mild to moderate Anemia. 3% had Hb 8 gm/dl. 3% had Hb of 9 gm/dl. 10% had Hb 10.5 gm/dl. 84% had Hb above 11 gm/dl. In control group, 33% had Hb above 11 gm/dl. 77% had mild to moderate Anemia. 53% had Hb 9 gm/dl. 1% had severe anemia requiring blood transfusion. Hb 7 gm dl and 6 gm/dl. 84% had complete abortion in study group. 73% had complete abortion in control group. 13% from both group achieved complete abortion after Repeat misoprostol administration. Complete abortion in Control group had mild to moderate anemia. NO Anemia in study group which had complete abortion.

Conclusions: Quality care for medical abortion requires prevention of Anemia and Infection. It is an acknowledged fact that Mifepristone Misoprostol combination can cause varying amount of blood loss in early pregnancy. Post abortion survey of women undergoing medical abortion shows varying degree of anemia, as they can have incomplete abortion and infected retained products will aggravate blood loss. Iron supplementation and Prophylactic antibiotics should be advised along with medical abortion pills as it helps preventing Anemia caused due to blood loss in Medical Abortion. Unmonitored these women are likely to start their next pregnancy with a low haemoglobin, and resulting disastrous consequences.

**P0994**

WHAT DO KOCH AND COLLEAGUES REALLY SAY ABOUT THE RELATIONSHIP BETWEEN ABORTION LAWS AND MATERNAL MORTALITY?

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Objectives: Safe abortion is a key strategy to reduce maternal morbidity and mortality. Mexico liberalized abortion law in Mexico City in 2007; laws in Mexico’s other 31 states vary, but remain restrictive. A recent publication by Koch and colleagues (BMJ Open 2015) presented descriptive data suggesting that states with more restrictive
abortion laws had lower levels of maternal mortality. We critique the methods and conclusions employed by this paper and present a research agenda for examining the impact of legal abortion on women’s health in Mexico.

Method: Several aspects of the methods Koch and colleagues employ make it difficult to interpret the results. First, a natural experiment requires random allocation of exposure and/or statistical approaches to approximate experimental design, neither of which are part of this analysis. Second, they use the Intentional Search and Reclassification of Maternal Deaths (BIRMM) dataset, but do not specify whether they include deaths that have been reclassified or not. In addition, the early years of the BIRMM had data quality issues that make results less robust than later years (since 2006). Finally, the results do not support the conclusions.

Results: The paper claims to demonstrate that maternal mortality and abortion-related mortality are higher in the 14 states classified as having less restrictive abortion laws. However, their own tables present more rapidly declining maternal mortality ratios (MMR) during 2002–2011 in the group of states with less restrictive laws. Further, their own multivariable models suggest no independent association between abortion laws and the MMR, accounting for several socio-demographic indicators. The authors conclude that this study shows that legalizing abortion does not impact maternal mortality, despite not focusing the analysis on Mexico City, the only state where first-trimester abortion is legal on demand.

Conclusions: We need rigorous evidence about the health impacts of reforming abortion laws worldwide. Simplistic studies that do not answer the stated research questions and obfuscate findings with a deluge of descriptive detail do not advance science, clinical care, or women’s health. Population-level studies designed to answer questions about the causes of maternal mortality and the best approaches to reduce it are needed. Many factors contribute to decreasing maternal mortality and safe, legal abortion continues to play a key role, especially among the most vulnerable women.

P0995
COSTS AND DECISION-MAKING REGARDING ABORTION AND ABORTION CARE-SEEKING IN ZAMBIA
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Objectives: Although abortion can be legally provided in Zambia on the grounds of health, economic distress, and rape, it is rarely performed by trained providers under the allowed conditions. An additional barrier is that any women who do not know abortion is legal in Zambia and therefore continue to have unsafe abortions. NGOs have attempted to scale up their ability to provide safe abortions in this fraught political environment. We sought to assess the economic, health and social costs of abortion in a context in which some women are able to access safe abortion while others do not.

Method: We employed the use of mixed-methods for the data collection: longitudinal semi-structured in-depth interviews (IDIs) and a structured cost questionnaire administered at Time 1 (T1) with women recruited at a range of health facilities in Lusaka and Kafula districts. Women who have successfully obtained a legal abortion and women who have experienced complications from unsafe abortion have been recruited from 2 public hospitals (one in each district) and a number of private clinics in the two districts. To date, 45 T1 and six T2 IDIs have been conducted, and 108 cost questionnaires have been administered.

Results: Preliminary analyses from the IDIs reveal that safe terminations are happening in the private sector while abortion complications are treated at public hospitals. Women are arriving at health facilities with minor health complications. The unintended pregnancy and consequent abortion often results in the end of the relationship. Women report many numerous visits to the same as well as different health facilities in their quest to obtain an abortion or treat post-abortion complications. The data reveal that women are experiencing IUD insertions post-abortion often without consent. None of the respondents know abortion is broadly legal in Zambia.

Conclusions: Results from the study will be ready in May 2015. They will include descriptive analysis of the longitudinal costs that women incur as a result of accessing a safe versus an unsafe abortion. Estimates of the economic costs of abortion and postabortion care (costs of seeking care, cost of treatment, transport and opportunity costs) will also be generated. The impact to households will be assessed using a socio-economic status indicator. The focus on not only financial costs but also the longer term health effects as well as social consequences make these data a unique contribution to understanding abortion in Zambia.

P0996
EXPERIENCES OF PROVIDING ABORTION CARE AND CONTRACEPTIVE COUNSELLING TO IMMIGRANT WOMEN IN SWEDEN
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Objectives: Universal access to health care services is a public health goal in Sweden and one cornerstone is to promote universal access to safe and secure sexuality and good reproductive health. Immigrants represent 15% of the total Swedish population. Evidence suggests that immigrants might have different sexual and reproductive health (SRH) care needs as compared to non-immigrants. Previous research indicates sub-optimal reproductive health care and adverse SRH outcomes among immigrants living in high-income settings. The objective of this study is to explore health care providers experiences of abortion care and contraceptive counselling to immigrant women in Sweden.

Method: Individual interviews have been carried out with 15 health care providers involved in abortion care, i.e. doctors and midwives. A purposive sampling technique has been used to recruit participants with a variety of backgrounds. An inductive approach, using thematic analyses has been applied.

Results: The health care providers were at first reluctant to talk about specific needs among foreign-born women, but during the interviews specific needs that influenced the encounter were identified. In the analysis we identified one main theme: Accommodating the specific needs related to pre- and post migration factors – a challenge in the health care encounter. This theme includes three sub-themes: Handling Poor Knowledge, The Influence of Life Situations and Perceptions and Believes Influencing Contraception.

Conclusions: There is a need to acknowledge pre-migration factors that influence the health care encounter with foreign-born women seeking abortion care. This in order to reach the goal of, and to provide equal reproductive health care to all.

P0997
THE INFLUENCE OF CONTRACEPTIVE ATTITUDES ON ABORTION STIGMA IN LUANDA, ANGOLA
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Objectives: To assess the influence of perceived contraceptive attitudes on abortion stigma among women of reproductive age in Luanda, Angola. To understand the influence of contraceptive attitudes on abortion stigma, a social-ecological model which lays out multiple intersecting levels of influence on abortion stigma is also developed.
Levels of this model include partner, friend, community, and media influences.

Method: This analysis uses data from the 2012 Angolan Community Family Planning Survey. Researchers employed multi-stage random sampling to collect demographic, social, and reproductive information from a representative sample of Luandan women aged 15–49. Researchers analyzed data from 1469 respondents, used multiple logistic regression to assess women’s perceptions of how their partners, friends, communities, and the media perceived contraception, and examined associations between those perceptions and respondents’ abortion stigma. Stigma was measured by likelihood to help someone get an abortion; likelihood to help someone who needed medical attention after an abortion; and likelihood to avoid disclosing abortion experiences.

Results: Community acceptance of family planning and media discussion of family planning were associated with a decrease in likelihood to help someone receive an abortion. Higher levels of partner engagement in family planning discussion were also associated with decreased likelihood to help someone access abortion, as well as increased likelihood to avoid disclosing abortion. Partner support of family planning was associated with increased likelihood to help someone access an abortion and increased likelihood to not conceal abortion. Friends’ encouragement of family planning and community support of contracepting women were associated with an increase in likelihood to avoid disclosing abortion.

Conclusions: Addressing abortion stigma is key to reducing abortion-related mortality; increasing partner support of family planning may be one strategy to help reduce abortion stigma. Results indicating that perceived community and friend support of family planning can increase abortion stigma may suggest that the stigma stems not from abortion itself, but rather from judgment about so-called unacceptable pregnancies. These results can both inform further study into the reduction of abortion stigma and suggest a first step towards reducing stigma in Luanda.

P0998
FACILITATING ACCESS: SMS FOLLOW-UP AFTER MEDICAL ABORTION IN BOGOTA, COLOMBIA

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Objectives: For most women, a follow-up visit after medical abortion is medically unnecessary. This pilot RCT aims to establish the safety and feasibility of text-message (SMS) follow-up versus standard of care (in-person follow-up visit 15 days post procedure) after medical abortion at a clinic in Bogota, Colombia.

Method: Women in both intervention and control groups received wanted medical abortions according to clinic protocol. Women in the intervention group received 5 SMS’s containing clinical information and supportive messaging. Eleven days following the procedure, women in the intervention arm were asked to respond to a simple set of self-assessment questions via SMS. Women whose self-assessment indicated a need for follow-up were requested to return to the clinic. If follow-up was not indicated, participants were reminded to return to the clinic for the usual 15-day scheduled follow-up visit.

Results: A total of 173 women between the ages of 18–49 were enrolled in the study (intervention: n=77; control: n=96). On average, women traveled for 1.3 hours to the clinic. No serious medical complications occurred in either group, and the proportion of women returning to the clinic for side-effects or mild complications before the scheduled follow-up visit was the same across study groups (4.7%). In both study groups, 92% of women were satisfied with their abortion and follow-up care, the large majority of women in both study groups would recommend the process to a friend (intervention: 86%; control 89%).

Conclusions: SMS follow-up after medical abortion appears to be a safe and feasible method of follow-up for medical abortion care.

P0999
COMPARISON OF THE EFFECT OF ANETHUM GRAVEOLENS (DILL) SEEDS WITH OXYTOCIN ON INDUCTION OF LABOR IN TERM PREGNANCY: A RANDOMIZED CLINICAL TRIAL

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Objectives: Oxytocin, the most common pharmacologic methods for labor Induction has maternal and fetal side effects and sometimes is not effective. Dill Includes tannin – polyphenols with contraceptive properties – potentially Supposed to be able to induce uterus contractions. This study aimed to investigate the effects of boiled Anethum Graveolens seeds on induction of labor and compare it with oxytocin in term pregnancy.

Method: A randomized clinical trial was conducted on 100 nulliparous, 41–42 weeks pregnant women aged 18 to 35y, Bishop score ≤4, cephalic presentation, intact membranes, singleton pregnancy without labor pain or bloody show, randomly allocated to either intervention or control Group receiving Boiled Anethum Graveolens seeds or induction with oxytocin, respectively. 0/018 g/kg of dill seeds and a teaspoon full of sugar was added to 250cc of boiling water and was brewed for about 10 minutes. Intervention group drank the filtered solution only once after Admission and were infused with simple Ringer serum. Control group received standard protocol of labor induction using Oxytocin.

Results: Intervention group had a significantly better bishop score following the Intervention compared to control group. The mean duration of active phase (2.30±0.34 vs. 2.76±0.48 hours, P=0.001). Second (42.95±8.79 vs. 58.52±22.58 minutes, P=0.004) and third stages (12.00±4.64 vs. 12.50±2.25, minutes P=0.001) of labor were significantly lower in intervention group. control group had shorter latent phase than intervention group.

Conclusions: Results supported the boiled Anethum graveolens seeds as an effective way to induction of labor.

Urogynecology

P1000
THE ROLE OF TRANS-OBTRURATOR VAGINAL TAPE (TVT-O) IN THE MANAGEMENT OF FEMALE STRESS URINARY INCONTINENCE – 4 YEARS FOLLOW UP, MINIA UNIVERSITY EXPERIENCE

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Objectives: To evaluate the effectiveness and safety of a new minimally invasive surgical procedure trans-obturator vaginal tape (TVT-O) in the treatment of female stress urinary incontinence and follow up these cases for 4 years regarding effectiveness, safety and possibility of complications.

Method: This prospective study was conducted between June 2009 and October 2013 on 30 women with genuine stress urinary incontinence (SUI) demonstrated by history, clinical examination and urodynamic studies underwent transobturator sling (inside-out technique) (TVT-O Gynecare®, Johnson & Johnson, USA). The patients were followed up for 4 years regarding subjective and objective cure rates, safety and possibility of complications.

Results: The mean operative time (min.) was 19.67 (±8.06). The mean intraoperative blood loss (ml) was 80±30.52. There was no cases complicated by intraoperative bleeding (mild or severe), bladder,
urethral, vascular injuries and anesthetic complications. Subjective and objective cure rates of these patients were (95%), 3 cases were complicated by denovo urgency, 4 cases complain of mild dysparunia till the end of the first year.

Conclusions: The results of this study concluded that management of genuine stress urinary incontinence by transobturator vaginal tape (TVT-O) is an easy and safe method with low complications and high success rate.

**P1001**

**COPIING MECHANISM AMONG WOMEN WITH VESICOVAGINAL FISTULA AT THE NATIONAL OBSTETRIC FISTULA CENTRE, ABAKALIKI, NIGERIA**

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**Objectives:** This study aimed to evaluate the coping mechanisms among women with VVF at the national obstetric fistula centre.

**Method:** This cross-sectional study assessing coping mechanisms among 405 VVF clients using simple random sampling technique. Information on socioeconomic variables, labour and delivery and as well as means of survival, social and psychological states were collated and analysed using standard methods.

**Results:** The mean age was 30.6±1. Many (42.2%) were above the age of 39 years while 20 (4.9%) were less than 20 years. They were majorly (70.9%) multiparous and grandmultiparous. Up to 67% (272) were living with their partners while 2.7% were divorced. 48% had no formal education while 29.1% had primary education. Farming (53.3%) and trading (18%) were their major occupation. Up to 61.2% were in labour for more than 48hours with 88.9% stillbirth. On their coping mechanisms, 69.4% of the clients had support mainly from partners (35.6%) and relatives (16.3%). 10.9% of relatives showed negative attitude to them. Only 5.4% were hopeful. Others felt depressed (22%), hopeless (17%), helpless (14%) and worthless (4%).

**Conclusions:** The study showed that vesico-vaginal fistula poses great psychological and other challenges to sufferers.

**P1002**

**LOWER URINARY TRACT SYMPTOMS (LUTS)/URINARY INCONTINENCE AFTER VAGINAL AND ABDOMINAL HYSTERECTOMY**

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**Objectives:** To determine frequency of lower urinary tract symptoms (LUTS) after catheter removal in women undergoing vaginal and abdominal hysterectomy performed for benign indications.

**Method:** Women undergo hysterectomy meeting for inclusion criteria will be enrolled in study, taking from obs/gyn department. Informed consent will be taken before hysterectomy. Surgeon more than 5 yr of post-fellowship experience will performed hysterectomy. Post surgery catheter will be removed after 24 hour. First patients will be assessed after 24 hour of catheter removal to see LUTS then at 1 week and finally at 4 week after catheter removal. LUTS will be noted down along with age, parity, height, weight, BMI, co morbidity, menopause, route of hysterectomy, indication of operation, presenting complain and duration of indwelling catheter.

**Results:** 76 patients were included. Average age was 51 years. Most women had multiparity. Menopause in 50.19% diabetic & 0.26% hypertensive. Common complain was UV prolapse 32.9% then PMB 23.7%, Menorrhagia 19.7% & Irregular cycle 9.2%.Frequency of LUTS after removal of catheter in both hysterectomy was 32.9%, urgency was 22.4%, UUI was 14.5% & SUI in 10.5%.Rate of LUTS was 47% in vaginal & 18% was in abdominal (p=0.014), frequency was significantly high in vaginal compare to abdominal (p=0.011) while urgency, UUI & SUI was insignificant between both group. In parity, only SUI was high in those women who had grand multi parity.

**Conclusions:** In conclusion the results of our study showed that bothersome LUTS after catheter removal is only significant (P value is 0.024), for frequency of urine, other LUTS has not significant means in both surgical group for a period of 4 week of post operatively. This difference can be explained by both persisting and development of LUTS and persists after correction for all difference. During vaginal hysterectomy there is continued traction on the uterus could contribute to irreversible damage of the pelvic innervation, which innervates the urethral sphincter, might be at risk for damage due to overstretching related to downwards traction.

**P1003**

**PREVALENCE AND RISK FACTORS OF URINARY INCONTINENCE IN PREGNANCY**

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**Objectives:** To estimate the prevalence of UI in pregnant women in Botucatu and to identify factors associated with UI during pregnancy.

**Method:** A cross-sectional population-based study. All pregnant women regardless of gestational age were interviewed in the post-partum time or until hospital discharge. An investigation structured based on the literature, containing questions about the occurrence of UI was used, their types, risk factors and the key moments in the urinary leakage occurred.

**Results:** 996 women’s were interviewed, with an average age of 26.11 years (± 5.92). The prevalence of urinary incontinence was 52%. Among several covariates, the presence of constipation (OR: 1.498), consumption of stimulants foods (OR: 1.498), presence of gestational diabetes mellitus (OR: 3.541), recurrent urinary tract infection (OR: 204.749) and age (OR: 1.059) were maintained is related to the UI during pregnancy.

**Conclusions:** Understanding the risk factors for the occurrence of UI during pregnancy can be useful to health professionals to prevent and reduce risk factors that contribute to the the UI during the period prescribed, thus preventing this problem from getting worse after delivery, especially when related to DMG and recurrent UTI.
repair over mesh and below the site of incision for enforcement of genital prolapses can highly reduce the risk of erosion.

P1005
EFFICACY AND SAFETY OF SOLIFENACIN SUCINATE TABLETS VERSUS SOLIFENACIN SUCINATE TABLETS WITH LOCAL OESTROGEN FOR OVERACTIVE BLADDER IN POST-MENOPAUSAL WOMEN – A MULTI-CENTRE, RANDOMISED, OPEN, CONTROLLED COMPARISON STUDY
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Objectives: To compare the effectiveness and safety of solifenacin succinate tablets alone or combined with local oestrogen for OAB treatment in post-menopausal women.
Method: This multi-centre, randomised, open, parallel-controlled clinical trial enrolled 104 women between January 2012 and August 2013. Subjects were randomised to 2 Groups (A: solifenacin succinate tablets 5 mg qd for 12 weeks + promestriene vaginal capsules intravaginally for 12 weeks) or the Control Group (B: solifenacin succinate tablets; 5 mg qd for 12 weeks). Before and after 12 week treatment, symptoms (urgency, frequency, and urge incontinence) were analysed, and quality-of-life questionnaires (International Prostate Symptom Score and Overactive Bladder Symptom Score scale) were utilized. T-test or Mann-Whitney U test, chi-square or Fisher’s exact test were used for data analysis.
Results: The median decreases in the mean urination times (24 h) in Groups A and B were 5.2 and 4.3, respectively, which were not significantly different. The median decreases in urgency episodes in Groups A and B were 2.0 and 2.5, respectively. Additionally, the quality-of-life scores significantly changed in both groups (both P <0.05). The most common adverse event was dry mouth (19.2% in both groups).
Conclusions: Solifenacin succinate with or without local oestrogen was effective and safe for OAB treatment in post-menopausal women. Local oestrogen improved subjective feelings and patient quality of life.

P1006
PREVALENCE AND THE ASSOCIATED TRIGGER FACTORS OF URINARY INCONTINENCE AMONG 5000 BLACK WOMEN IN SUB-SAHARAN AFRICA: FINDINGS FROM A COMMUNITY SURVEY
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Objectives: To determine the prevalence and describe possible trigger factors of urinary incontinence (UI) among adult women in a Nigerian community.
Method: The present study comprised a household community survey conducted among 5001 women aged ≥18 years. Cluster multi-stage sampling was used to select eligible respondents. Information was obtained by an interviewer who administered a structured questionnaire on sociodemographics, obstetric and gynaecological characteristics, leakage of urine and trigger factors.
Results: The mean SD age of the women was 33.2±14.7 years. The proportion of women currently experiencing leakage was 2.8% (95% CI, 2.6–3.0). The types of incontinence reported by women currently leaking included stress incontinence (2.3%), urge incontinence (1%) and mixed (0.6%). Severe incontinence was reported in 0.5% of women, 0.1% had moderate incontinence, whereas 2.2% had mild incontinence. Women with history of vaginal delivery only were approximately two-fold more likely (95% CI OR, 1.11–3.02), and those who delivered by other modes over four-fold more likely (95% CI OR, 1.96–9.27), than nulliparous women to report currently leaking urine.
Conclusions: The present study shows a prevalence of UI comparable to other settings, and the commonest type is stress is found to be UI. The mode of delivery is a significant correlate of UI amongst Nigerian women.

P1007
TVT-SECUR VERSUS TVT-OBTURATOR: A RANDOMIZED TRIAL OF SUBURETHRAL SLING OPERATIVE PROCEDURES FOR STRESS URINARY INCONTINENCE, EL MINA EXPERIENCE
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Objectives: To compare TVT-Secur (TVT-S) and TVT-Obturator (TVT-O) suburethral slings for treatment of stress urinary incontinence (SUI).
Method: This was a single-centers, randomized trial of women with SUI who were randomized to TVT-S or TVT-O from May 2008 to April 2012. The primary outcome, SUI on cough stress test (CST), and quality-of-life and symptom questionnaires and Pelvic Floor Impact Questionnaire were assessed at 12 weeks, 6 months, 1 year and 2 years.
Results: Thirty women were randomized to TVT-S and 28 to TVT-O. There were no differences in median baseline quality-of-life and symptom questionnaires and Pelvic Floor Impact Questionnaire. Eighteen (60%) of 30 participants randomized to TVT-S had a positive CST result at evaluation after 12 weeks, 6 months and 1 year, whereas 3 (11%) of the in the TVT-O group had a positive CST result. Both TVT-S and TVT-O resulted in improved quality of life and symptoms at 12 weeks, 6 months, 1 year follow up.
Conclusions: The TVT-S seems to have a higher risk of positive post-operative cough stress test result (higher failure rate); however, the 2 procedures result in similar improvements in quality of life and symptoms.

P1008
LOW COST MID URETHRAL SLING IN STRESS URINARY INCONTINENCE
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Objectives: To evaluate the safety, efficacy and cost-effectiveness of mid-urethral sling using freedom VM for treatment of Stress Urinary Incontinence (SUI).
Method: We included 35 women with pure stress urinary incontinence not responding to lifestyle modifications, pelvic floor muscle training and medical management. The patients underwent TOT procedures using Freedom VM [polypropylene monofilament mesh, pore size 1.3 x1 mm. monofilament diameter 0.15 mm, cost: Rs. 5400 ($95)]. Patients were followed up for a period of 12 months for subjective and objective improvement.
Results: Out of 35 women with genuine SUI who underwent TOT using Freedom VM, 22 (63%) patients were completely cured, 10 (27%) patients showed improvement and 3 (10%) patients were yet symp-
Results: There were no intra operative vascular or visceral injuries. In immediate post operative period, 3 patients had urinary retention which improved by third post operative day after catheterization. No infection or mesh erosion was reported.

Conclusions: Mid urethral sling using Freedom VM is an equally safe and effective as other commercially available slings. This procedure is associated with less pain, shorter hospitalization, faster return to usual activities and reduced cost.

P1009
SURGICAL REPAIR OUTCOMES OF FEMALE GENITAL FISTULAE IN RELATION TO THEIR CLASSIFICATION
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Objectives: To assess the outcomes of fistula repair 3 months following surgery.

Method: A prospective study based on 300 patients registered from June 2011 to June 2014 at HNL and CNRFO. Outcomes assessment was based on an unpublished classification system using four criteria (fistula environment, size, illustration and prognosis).

Results: 94.4% cases through vaginal route. Type I (28.6%): simple fistulae; Type II (18.4%): urethral, bladder neck or trigone fistula (sub-types A, B, C). Type III (27.6%): circumferential (sub-types A, B, C). Type IV (17.4%): association of different types; Type V (2.6%): persistent fistula-related disease; Type VI (5.4%): iatrogenic. 7.7% lost to 3 months follow-up; 92.3% successful closure. 89.6% continent and cured. Continence rate: 100% type I, 23% type III C. 6.7% lost to 3 months follow-up; 92.3% successful closure. 89.6% continent after surgery. Conclusions: Successful outcomes and post-surgery urinary incontinence well associated with fistula types.

P1010
AN AUDIT OF OBSTETRIC FISTULAE PRESENTING TO HAMLIN FISTULA, ETHIOPIA, 2011–2014
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Objectives: Clinically, the incidence and type of vesico-vaginal fistulae seem to be falling with high or ureteric fistulae becoming more prominent, possibly as the result of caesarean section. This thesis is explored by auditing the operation theatre records for 4 years at Hamlin Fistula Ethiopia in Addis Ababa, Metu and Yirgalem.

Method: An audit of all new presentations of urinary fistulae by age and parity presenting between January 2011 and December 2014, classifying them as high, low or ureteric fistulae.

Results: 875 women underwent primary urinary fistula repair in Addis Ababa, 708 in Yirgalem and 258 in Metu. Over the 4-year study period the number of new urinary fistula fell by 68% in Addis and Yirgalem and 37% in Metu. 65% of this workload is low fistulae in young primiparous women but 35% of new fistulae are high in older multiparous women who have undergone caesarean section or hysterectomy for uterine rupture and 35% are ureteric injuries. The incidence of high fistulae rises to a peak of 61% in Yirgalem, which serves the southern nations, poorly served by obstetricians.

Conclusions: Although the number of new urinary fistulae presenting to Hamlin Fistula Ethiopia seem to be falling, the high proportion of iatrogenic fistulae, probably the result of difficult caesarean sec-
P1013
THE FREQUENCY OF POSTPARTUM URINARY RETENTION (PPUR) AND FACTORS CONTRIBUTING PPUR AFTER VAGINAL DELIVERY
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Objectives: To determine the frequency of postpartum urinary retention (PPUR) & factors contributing to post partum urinary retention (PPUR) after vaginal delivery. Postpartum urinary retention continued to be a poorly recognized, common and frustrating complication during the immediate postpartum period. As it is almost impossible to predict which patients will develop PPUR, all patients on the postpartum ward should be considered to be at high risk. Present study is designed to calculate the actual magnitude of problem, for instance policy could be revised, new strategies should be design to reduce the maternal morbidity & mortality.

Method: It was a cross sectional study conducted at liaqaut national hospital from 1.july.2013 to 31.12.2013. total 114 women were recurred as case of postpartum uterine retentio following inclusion and exclusion criteria. women was interviewd & delivery notes was reviewed, on predesigned proforma including following variable age, BMI, parity, gestational age and history of delivery including duration of labor, instrumental delivery, episiotomy, use of epidural analgesia was recorded. To control the effect modifiers the stratification was done on age, gestational age & BMI, to see the effect of these on outcome using chi-square test considering p<0.05 as significant level.

Results: The average age of the women was 28.81±3.98 years, mean gestational age of the women was 38.34±0.88 weeks, mean BMI was 26.59±2.62 kg/m² and mean duration of labor was 11.55±2.13 hours. Out of 114 women, 67 (58.77%) had primigravida and 47 (41.23%) had multigravida.

Frequency of postpartum urinary retention after vaginal delivery was observed in 6.14% (7/114) women. Prolong labor and epidural analgesia was significant factor contribute PPUR while, instrument delivery and episiotomy were not the significant factors in this study.

Conclusions: Managing voiding difficulties following childbirth requires proactive management that is collaborative and recognizes the potential psychological impact on the woman and her new baby. PUR remains a relatively poorly defined and understood condition, and yet can result in significant short and potentially long-term complications if it goes unrecognized. Attention to bladder care during labor and vigilance in the early detection and management remain the cornerstones of prevention. Future studies are still needed to further elucidate the mechanism, risk factors, and pathophysiology of PUR, all of which will help develop more standardized guidelines for the management of PUR.

P1014
OBSTETRICAL AND ANATOMICAL CHARACTERISTIC OF OBSTETRICAL FISTULA IN NIAMEY, NIGER
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Objectives: To determine the obstetrical and anatomical characteristics of genital female fistulas at the National Hospital of Niamey, Niger.

Method: In this prospective study from December 2003 to February 2005, 111 patients with obstetric fistulas were recorded and anatomical type of fistula were studied.

Results: The studied variables were: epidemiological, obstetrical data and the anatomical aspects: The patient were 87.39% 15–36 years old, 43.2% of the cases had their fistula with the first childbirth, 81% of the fistula were of urethral seat or trigonal. 53.2% of the patients were at the stage I, 30.6% are at the stage II, 7.2% are at the stage III and 9.0% are at the stage IV.

Conclusions: Patients were young, primipara and lesion were urethral or trigonal.

P1015
ASSESSMENT OF EFFICACY OF ERIUM YAG LASER TREATMENT FOR STRESS URINARY INCONTINENCE USING 1 HOUR PAD TEST – RANDOMIZED CONTROL TRIAL
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Objectives: The scope of this study is to demonstrate the efficacy and safety of an non-surgical, minimally invasive and non-ablative laser treatment for SUI using a 2940 nm erbium: yttrium-aluminum-garnet (Er:YAG) laser.

Method: 72 patients with genuine SUI were randomly divided into two groups, 43 patients were allocated to the laser intervention group and 29 patients to perineometry control group. Laser group was treated with 3 sessions of non-ablative 2940-nm Er:YAG laser. Patients from control group were performing 2 weekly sessions of perineometry for 3 months. Evaluation of treatment efficacy was measured with 1 hour pad test. These evaluations were performed at follow-ups (FU) after 3, 6, 12 months.

Results: All patients completed the treatments and follow-ups at 3, 6 and 12 months. SUI improvement was significantly higher in laser group in comparison to control group, specially at longer FU (6, 12 months). Results of 1 hour pad test showed improvements at same FUs of 66%; 72% and 70% for laser group and of 58%; 47% and 29% for control group. There were no adverse effects observed after laser treatment.

Conclusions: Results of our study for SUI are showing that non-ablative ErYAG laser treatment is efficacious and safe and that its results could last at least 12 months.

P1016
EVALUATION OF EFFICACY OF ERIUM YAG LASER FOR FEMALE SUI USING 3 DAYS VOIDING DIARY – PILOT STUDY WITH 12 MONTHS FOLLOW-UP
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Objectives: The aim of this pilot study was the evaluation of efficacy of new minimally invasive ErYAG laser treatment for stress urinary incontinence using 3 days voiding diaries.

Method: Eight female patients with SUI were treated with 3 sessions of ErYAG laser, once a month. Therapy efficacy was measured using 3 days voiding diary: leakage frequency and leakage quantity were observed. Patients filled-up 3 days voiding diary before the treatment and on six follow-ups (FU): at 14 Days, 1M, 2M, 6M, 8M and 12M. Average 3D frequency was calculated from the three successive daily leakage frequencies at every measurement point. Leakage quantity was evaluated with 4 grade scale: no leakage (0), a little (1), moderate (2) and a lot (3). 3D averages were calculated and used for comparison.

Results: All patients reduced their leakage frequency and quantity already after the first laser session and their results further improved after each of the following two sessions. The largest average reductions of leaking frequency (of 89.8%) and of quantity (of 82.6%) were measured at 2M FU. At 6M FU the frequency was still 77.5% and quantity 62.2% lower than before the treatment. At 8M and 12 M these values were 73.5% and 59.2% for frequency and 69.5% and 46.6% for leakage quantity.

Conclusions: The results of this small pilot study showed that ErYAG laser therapy could produce significant reduction of SUI symptoms which is lasting at least 12 months.
P1018
PATTERNS AND DETERMINANTS OF MENOPAUSAL SYMPTOMS IN SUB-URBAN COMMUNITIES IN SOUTH-EAST NIGERIA: A CROSS-SECTIONAL STUDY

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Objectives: This study was to determine the pattern and determinants of onset of menopausal symptoms and to find out the factors associated with these symptoms.

Method: The study was carried out between January and April 2013 in three different locations in Anambra State in south-east Nigeria. Random sampling procedure was used. Women of age group greater than 30 years formed the sampling frame for enrollment in the survey. Survey questionnaire for data collection was designed with four sections including background and obstetrics personality of respondents, medical history, menopausal symptoms and management and informed consent. Cronbach’s alpha test was used to determine the internal consistency of the survey questionnaire.

Results: Analyses were done on 126 women. The highest (49.6%) proportion of women had their first menstrual period within 15–17 years. Majorit (31.8%) were 50–54 years of age. Of the co-existing medical conditions, hypertension (36.4%) was highest, followed by diabetes mellitus (15.1%) and heart disease (11.1%). Majority (37.2%) of women were obese. Overall, majority (28.0%) of women including ≥60 years old saw their last menstrual period >10 years prior to interview (p<0.00).

Conclusions: A high proportion of women with menopausal symptoms were >50 years of age and majority had gradual stoppage of menstrual periods. Obese women were highest in proportion, while hypertension, diabetes mellitus and heart disease were the commonest co-existing medical conditions. There is need for establishment of menopausal clinics for awareness generation, early recognition and treatment of co-existing morbidities.

P1019
MODERN CONTRACEPTIVE UTILIZATION AND BARRIERS AMONG WOMEN WITH OBSTETRIC FISTULA IN NORTHWESTERN NIGERIA

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Objectives: This study determined the modern contraceptive utilization and barriers among women with obstetric fistula.

Method: This was a cross-sectional and descriptive study involving 173 women attending the fistula clinic of the National Obstetric Fistula Centre, Babbar Ruga, Katsina.

Results: The mean age of the women was 26.6±9.25 years and the mean parity was 3.76±3.2. Awareness of modern family planning was poor, only 48 (27.7%) were aware. Source of information was health-care providers in 58.5%. Oral contraceptive pills (31; 64.6%) and injectables (28; 58.3%) were the commonly known methods. Limiting family size (23; 48.9%) and spacing of births (11; 22.9%) were identified as the main benefits of family planning and only 3 (6.3%) identified family planning as important in the prevention of obstetric fistula. Husband opposition (33.3%) and desire for more children were identified as the major barriers to utilization.

Conclusions: The study showed that modern family planning knowledge is poor among women with obstetric fistula and if fistula is to be prevented, educational campaigns should target women in the rural areas that are at risk of developing obstetric fistula.

P1020
REVIEW OF OPERATIVE MANAGEMENT OF URETERO-VAGINAL FISTULA IN 11 PATIENTS TREATED OVER 2 YEARS AT THE CURE INTERNATIONAL HOSPITAL IN KABUL, AFGHANISTAN

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Objectives: To determine the prevalence, etiology and management of Uretero-vaginal Fistula patients presented to Obstetric Fistula service of CURE International Hospital.

Method: Between Jan 2013 and Dec 2014, 295 patients were operated on for Ob Fistula.

We managed a total of 11 women with Uretero-Vaginal Fistula out of total 295 surgeries (3.7%) over a period of 2 years. All U-V Fistula patients had CS for prolonged labor. It is unknown if damage before or during surgery led to the fistula formation. All of patients had been leaking urine for over 3 months. Diagnosis was based on dye test Ultrasound and IVP. The surgical method was open transvesicle Ureteric reimplantation with ureteric stent. The post operative stay was 2–4 weeks.

Results: In this series all patients with ureteric reimplantation were dry after Ureteric stent and Urethral catheter removal, except one patient was leaking urine through abdominal incision and successfully managed by longer catheterization.

Conclusions: Our result indicates the success of transvesicle Ureteric reimplantation in management of Uretero – vaginal fistula. The training of medical staff performing emergency Obstetric care and Gynecologic surgeries may need improvement.
P1021
HUSBAND'S ACCOMPANIMENT AND SUPPORT DURING CARE OF WOMEN WITH OBSTETRIC FISTULA IN NORTHERN DEMOCRATIC REPUBLIC OF CONGO: A DESCRIPTIVE STUDY
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Objectives: The Democratic Republic of Congo (DRC) is a developing country with poor obstetric indicators. Despite ongoing efforts to improve care, women continue to suffer multiple complications of childbirth including fistula. Reports from other programs have shown inadequate support by husband, even ostracization. The objective was to describe socio-demographic characteristics of patients in northern DRC and highlight the role of husbands’ support and accompaniment of their wives during their period of care.

Method: This was a descriptive study of women presenting at one of two mobile fistula surgical campaign missions in the province of Equateur in northern DRC in August 2012 and October 2013. The women were examined and treated for VVF. Socio-demographic data, including marital status and accompaniment by husbands, were also collected.

Results: Out of 163 VVF patients, 100 (61.3%) were less than 35 years old and 63 (38.6%) were more than 35 years old. The majority of patients had no formal education (102/163, 62.6%) and were married (100/163, 61.3%). Husbands’ engagement and support in caring for their wives during fistula treatment was high as the majority of patients who were married and still living with their husbands were also accompanied to the hospital by their husbands (56/94; 59.6%).

Conclusions: This study shows that treatment for genital fistula the province of Equateur in northern DRC is highly successful: 142/163 women, or 87.1%, were successfully treated. A significant proportion of patients was married and was accompanied by their husbands throughout their hospital stay.

P1022
FISTULA REPAIR SERVICES IN A COUNTRY PROGRAM WITH RECURRENT ARMED CONFLICT: PROVINCE OF MANIEMA, DEMOCRATIC REPUBLIC OF THE CONGO
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Objectives: Recurrent episodes of armed conflict in the Congo have caused uncontrolled population displacement, survival mode and “every man for himself” and family separation, and skilled manpower loss including doctors and midwives. The objective was to describe patterns in repair statistics in the region before, during and after conflict.

Method: This was a retrospective study of service delivery data before, during and after armed conflict in Maniema Province, with women being followed and treated at the “Fistula Clinic” of the Safe Motherhood Kindu (MSRK).

Results: Deliveries and caesarean sections were held in conditions of despair without proper assistance or a framework prepared for this purpose. In addition, there is now a contributory scourge, traumatic gynecologic fistula from sexual violence, including vaginal impalement with crude weapons. The total number of cases operated on in Maniema for this period was 1026, disaggregated as follows:
- Before the war (before 1998): 18 cases
- During the war (1998 to 2006): 293 cases
- After the War (2006 to present): 715

On average, 96% were cured, with 4% failures.

Conclusions: Recurrent armed conflict is a key indirect contributor to occurrence of female genital fistula. It will be difficult to eliminate or even reduce occurrence of fistula in the long-term unless other national and international interventions and inclusive dialogue are emphasized to deal with recurrent armed conflict.

P1023
IATROGENIC FISTULA IN KINSHASA, DEMOCRATIC REPUBLIC OF THE CONGO: ASSOCIATED OBSTETRIC PROCEDURES AND ANATOMIC CHARACTERISTICS
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Objectives: The objective of the study was describe the clinical environment in which the iatrogenic fistula occurs and establish the relationship between obstetric procedures and anatomical lesions.

Method: We conducted a descriptive study, retrospective study of anatomical characteristics of fistula and associated obstetrical procedures at Saint Joseph Hospital from January to December 2013.

Results: In our series, 20 out of 192 women with obstetric fistula were diagnosed as being iatrogenic (11.56%). The age range was 16 years and 46 years. The average duration of labor work was 2.2 days. 15% of women were transferred to another health facility for delivery. The vesico uterine fistula 80% were associated with cesarean section. We found 3 uroterovaginale fistulas (15%) after Symphysiotomy. 10% of women have undergone two obstetric procedures during the same delivery.

Conclusions: This study showed a rate of 11.56% for iatrogenic fistula, comparable to other studies in the region. Delay in seeking emergency obstetric care can result in procedures that contribute to occurrence of iatrogenic fistula. The involvement of families, community, geographic accessibility, institutional capacity building, training providers are important for providing quality and timely care to women in pregnancy and childbirth.

P1024
ANTHROPOMETRIC VARIABLES AMONG OBSTETRIC FISTULA SURVIVORS AT THE NATIONAL OBSTETRIC FISTULA CENTRE, ABAKALIKI, NIGERIA
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Objectives: Obstetric fistula (OF) is a significant complication of prolonged obstructed labour arising from pelvic inadequacy. A relationship between maternal pelvis and shoe size has been documented. The study set out to assess the relationship between shoe size and other anthropometric variables among OF survivors.

Method: A cross-sectional prospective study to assess the anthropometric variables of 170 women with OF. The shoe sizes of the subjects were measured using the Genuine Brannock Device. Other anthropometric variables measured were height, weight and chest circumference. The relationships between shoe size and the other variables were assessed using linear regression models.

Results: The mean height and weight were 1.54 ±0.07 m and 59.70 ±15.23 kg respectively. The mean waist and chest circumference were 34.37 ±4.43 cm and 34.51 ±16.46 cm respectively. The mean shoe size was 6.51 ±1.40. There was a positive correlation between height and shoe size (r=0.05, P=0.006916), weight and shoe size (r=0.15, P=0.000003), waist circumference and shoe size (r=0.12, P=0.000004) and chest circumference and shoe size (r=0.13, P=0.000001).

Conclusions: This study shows that among OF survivors, height, weight, chest and waist circumference all have a positive correlation with the shoe size.
P1025

FEMALE GENITAL FISTULA: CLINICAL AUDIT OF COMPLICATIONS FROM SURGICAL TREATMENT

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Objectives: Fistula repair, like other major surgery carries some risk of complications. It is important to monitor the occurrence of complications because they may be related to quality gaps in perioperative assessment and care or to the surgical team’s work environment and are crucial for client safety and satisfaction. The objective of this study was to assess complications risk associated with surgical treatment of fistula.

Method: Multi-country and multi-site monitoring was conducted for fistula programs supported by EngenderHealth between 2005 and 2013, using semi-structured questionnaires and excel format checklists for complication categories. A detailed validation audit was conducted at 10 purposively selected sites. For the audit, a pre-coded questionnaire was used for quantitative and qualitative data; it included a semi-structured guide for in-depth interviews for fistula surgeons, nurses and facility administrators.

Results: More than 26 thousand fistula repairs were recorded in quarterly review data, with a low overall complication rate over the study period, and confirmed by the clinical audit. Nevertheless, the audit revealed some under-reporting at a number of fistula repair facilities, mostly minor complications, but also a number of major ones, including death and “near miss” associated with septicaemia, acute renal failure, generalized convulsions and coma. The main challenges were poor perioperative care, follow-up and documentation. These were associated with inadequate physical and personnel resources and poor working environment.

Conclusions: Quarterly monitoring as well as a targeted clinical audit find that the complications risk of surgical treatment for fistula is low, but clinically significant. Some of the complications may be serious or recurrent and will need remedial action. Program managers and clinical monitoring teams need to be cautious of potential under-reporting from some health facilities for a variety of reasons, including poor record-keeping, diagnostic resources and apprehension by health providers. Providers need an improved work environment and facilitative supervision to better support quality perioperative care, documentation and follow-up.

Women’s Health Issues and Policy

P1026

IRON SUPPLEMENTATION PROTOCOLS FOR IRON DEFICIENCY ANEMIA: A COMPARATIVE REVIEW OF IRON REGIMENS IN THREE COUNTRIES OF INDIA, IRAN AND ENGLAND

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Objectives: Iron deficiency anemia is the most common micronutrient deficiency in the world today. It affects the lives of millions of women and children through contributing to poor cognitive development, increased maternal mortality and decreased work capacity. Because of the important role of iron in the physical and cognitive health, and for the universal consideration of eradication of this problem, this review aimed to compare iron supplementary programs in three countries if India, Iran and England.

Method: The design was a comparative review of iron supplementary programs in three countries of India, Iran and England. These countries were selected for review, as they represent the spread of iron deficiency anemia in three different level of low, medium and high. Relevant data were retrieved from databases including PubMed as well as WHO, World Bank Ranking and BMJ Center reports and then were included in comparative tables to provide the basis for detecting similarities and differences.

Results: The included countries in this review were different in terms of preventive and treatment strategies to overcome iron deficiency. The reason for this difference was due to health conditions, and availability of healthy drinking water, and also prevalence of various diseases like anemia, parasitic diseases, and malaria. In Iran and India the preventive programs are confined to all groups at risk, however, in England it just encompasses the immigrants and the people who are supported by the government.

Conclusions: This review showed that in low income countries, the most economic and cost-effective practice is enriching the nutritionals. Additionally, the treatment and preventive programs and policies for anemia in different countries are related to health conditions and health indicators of that country.
P1028
PERSPECTIVES ON GLOBAL HEALTH AMONGST OBSTETRICIAN GYNECOLOGISTS: A NATIONAL SURVEY
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Objectives: To characterize contemporary attitudes towards international healthcare of women amongst board-certified obstetrician-gynecologists.

Method: A questionnaire was mailed to members of the American College of Obstetricians and Gynecologists. Respondents were stratified by interest in global health.

Results: Two-hundred-two (50.3%) of surveys were completed. 76.6% of respondents endorsed interest in global health while 25.1% had experience providing healthcare abroad. Knowledge of contributors to morbidity and mortality was poor with only 29% of questions answered correctly. Personal safety was the primary concern of respondents regarding time abroad (47.6%), and most identifying two weeks as an optimal period of time (44.6%) to spend abroad. The majority (60.8%) cited hosting of local physicians in the United States as the most valuable service to developing a nation’s health care provision.

Conclusions: Despite high interest in global health, experience, knowledge, and willingness to spend time abroad were limited. Concerns surrounding personal safety amongst respondents dovetail with the belief that training local physicians in the US provides the most valuable service to international healthcare efforts. Though this approach alleviates security concerns, it brings its own challenges. Given that need is often highest in areas of unstable security, this concern represents a challenge to increasing involvement of Ob-Gyns in global women’s health.

P1029
ROLE OF SOCIAL CAPITAL IN MANAGEMENT OF HIGH-RISK BEHAVIOR IN WOMEN: A LITERATURE REVIEW
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Objectives: Social capital refers to the information that makes people believe that were respected and belongs to the network of bidirectional communication. It is a concept that related to the social context, and as a new component has an impact on the health of society. The aim of this study was to explore the role of social capital in management of high-risk behavior in women.

Method: The study is a narrative review which conducted by search in databases like Google Scholar, PubMed, Springer and ProQuest using keywords: social capital, social support, risk behaviors. Then relevant articles to the study subject from 2004 to 2014 were selected. In this regard, a total of 96 articles were sought and ultimately 30 full articles were used to complete this review paper.

Results: Results were categorized in three domains including: Social capital in women with high risk behavior; Social capital and its role in health and health care provider’s role in helping people with risky behaviors with a focus on improving social capital and social support. The findings of this study indicated that social capital has interactive effects in relation to the risky behaviors and delinquency.

Conclusions: People with effective social interaction and social support can improve their risky lifestyle. In this way is recommended to design and implement special counseling programs to promote health-promoting behaviors in high-risk groups.

P1030
PROFESSIONAL MISCONDUCT IN OBSTETRICS AND GYNECOLOGY IN LIGHT OF THE SUPREME MEDICAL COURT BETWEEN 2004 AND 2014
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Objectives: The aim of the study was to present and analyze the verdicts of the Supreme Medical Court concerning professional misconduct among obstetricians and gynecology specialists between 2004–2014.

Method: Verdicts of the Supreme Medical Court from 104 cases concerning obstetrics and gynecology specialists, passed between 2004–2014, were analyzed. The following categories were used to classify the types of professional misconduct: decisive erro, error in the performance of a medical procedure, organizational erro, error of professional judgment, criminal offense, and unethical behavior.

Results: The largest group among the accused professionals were doctors working in private offices and on-call doctors in urban and district hospitals. The most frequent type of professional malpractice was decisive erro and the most frequent type of case were obstetric labor complications. The analysis also showed a correlation between the type of case and the sentence in the Supreme Medical Court.

Conclusions: A respective jurisdiction approach may be observed in the Supreme Medical Court ruling against cases concerning professional misconduct which are also criminal offences (i.e., illegal abortion, working under the influence). The most frequent types of professional misconduct should determine areas for professional training of obstetrics and gynecology specialists.

P1031
PERIMENOPAUSE – REAL SCENARIO AT THE TRANSITION
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Objectives: To address, analyse and evaluate the symptoms and complaints of women in the perimenopausal age group. The study aims to assess the quality of life and the impact of hormonal changes in perimenopausal women and its impact in day to day life.

Method: This is an observational study done in 500 women in perimenopausal age group (42 – 52 yrs) attending the outpatient department of Obstetrics & Gynecology at Jubilee mission medical college, Thrissur. Women who were receiving hormonal treatment, attained premature/surgical menopause or having any systemic medical illness and those who refused to participate in the study were excluded. Using structured questionnaires, these women were interviewed. Information regarding their complaints both physical and psychological was analyzed.

Results: Majority of women felt that they were affected by the symptoms in a negative manner. Most frequent symptoms were feeling tired, poor memory, lower backache, aching in muscle and joints, difficulty in sleeping, and vasomotor symptoms. The menstrual irregularity and sexual domains were also found disturbing to many of them.

Conclusions: Our study shows that a significantly higher proportion of perimenopausal women suffered from somatic symptoms such as backache, aches and pains, and lack of concentration, vasomotor symptoms and, Urinary symptoms. Sexual life was also affected. Vast majority of these women go through our health system unnoticed. Regional studies not only create awareness but also help in education of women. Health education and planning ahead for challenges need to be prioritised.
P1032

FECAL INCONTINENCE AND SPHINCTER DISRUPTION IN PATIENTS WITH ANAL INTERCOURSE: REVIEW OF 40 WOMEN

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Objectives: To investigate the anorectal problems and fecal incontinence in females having anoreceptive intercourse.

Method: 40 female patients referring to the colorectal ward of Hazrat-e-Rasoul Hospital and Legal institution in Tehran, Iran and having complaints about anal coitus were examined for the presence of anal sphincter problems and fecal incontinence.

Results: 82.5% had external anal sphincter gap and 52.5% of the patients had different degrees of incontinency. 70% of incontinencies were liquid form of stool while incontinency to solid stool and flatus was equal (15% each). Mean of Wexner score was 4.7.

Conclusions: It appears that the prevalence of incontinency and anal sphincter rupture is high in patients having anal coitus. Measures for harm reduction must be considered by authorities.

P1033

WHAT IS THE MAIN FOCUS OF GYNECOLOGY ON PRIMARY CARE?

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Objectives: To identify the sociodemographic and clinical characteristics, main gynecological diseases referenced and referencing the flow of women cared in the median complex level at the University Hospital of the University of São Paulo.

Method: Survey of 325 medical records of women referred from the Basic Health Units in the western region of the city São Paulo to the Ambulatory of Gynecology Residents of Family and Community Medicine, University Hospital, University of São Paulo in the period from July 2011 to January 2013.

Results: The average age of women attended was 44.90 years (± 14.50). The main diagnoses were Urogenital Dysfunction (29.06%, n=102) and Abnormal Uterine Bleeding (26.5%, n=93). On the flow of care, 65.2% (n=212) returned to Primary Care, 27.38% (n=89) remained to receive specialized care, and 7.38% (n=24) received referral to Tertiary Sector.

Conclusions: Patients referred for secondary level to women’s health care are in the period of late reproductive and reproductive life. Urogenital dysfunction and abnormal uterine bleeding are the main afflictions, which need attention of gynecologists on the primary care.

P1034

THE UNDERSTANDING OF THE TERM FEMALE GENITAL MUTILATION OR FGM AMONGST PATIENTS WITH FGM IN A UNITED KINGDOM INNER CITY ANTE-NATAL CLINIC

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Objectives: Female genital mutilation (FGM) is the term used for what commonly used to be known as female circumcision until the 1990’s. Since then female genital mutilation as a term, or FGM as its abbreviation, have been widely adopted by NGO’s, health professionals and the media. Female circumcision is hardly used nowadays to describe this practice. This study seeks to determine whether affected ante-natal patients better understand the term FGM or female circumcision.

Method: At the outset of the ante-natal clinic consultation 143 patients with FGM were shown the term "FGM" written down and asked the following: 1) Do you know what FGM or female genital mutilation means? 2) Do you know what female circumcision means? It was noted whether the patient spoke good English which meant that the consultation did not require an interpreter. If an interpreter was present, “female genital mutilation” was not to be interpreted literally in the patient’s own language until the above questions were answered. The patient’s occupation was also noted.

Results: Of 143 patients, 32 (22.4%) understood what FGM meant but 111 (77.6%) did not. 94 (65.7%) patients understood what female circumcision meant but 49 (34.3%) did not. 79 (55.2%) patients spoke English but 64 (44.8%) did not. No non-English speakers knew what FGM meant (0%). All 32 patients who understood what FGM meant spoke English and also understood what female circumcision meant. 21 of 64 (32.8%) non-English speakers knew what female circumcision meant. 82 (57.3%) patients were housewives, 55 (38.5%) worked outside the home and 6 (4.2%) unemployed. 41 housewives (50%) did not speak English and did not understand FGM or female circumcision.

Conclusions: FGM is not understood as well as female circumcision in both English and non-English speakers within this study. Clinicians should consider using the term female circumcision should it increase patient understanding during consultations and especially in non-English speakers. The consultation, however, should be an opportunity to educate the patient about the term FGM if it is unfamiliar. There was a particular lack of understanding of both FGM and female circumcision in non-English speaking housewives. These facts should be taken into consideration not just within hospital consultations but also during FGM educational projects and in the media.

P1035

REDUCING MATERNAL MORTALITY THROUGH POLICY ENGAGEMENT: THREE COUNTRY CASE-STUDIES FROM MARIE STOPES INTERNATIONAL

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Objectives: Marie Stopes International’s (MSI) role as a service provider in 37 countries provides us with a unique evidence base for developing practical and innovative policy recommendations. We undertake policy engagement and advocacy at national level to:

• Remove the unnecessary legal or regulatory restrictions that limit the ability of providers to deliver lifesaving maternity and reproductive healthcare services
• Increase resources for maternal and reproductive health
• Strengthen health systems and the capacity of governments to resource and provide services
• Ensure governments are aware of innovative medical and financing solutions that can scale up access.

Method: MSI is leveraging its service delivery expertise and action-oriented research to advise, inform and influence governments, donors and service providers. This engagement takes many forms including establishing national technical working groups, developing and disseminating guidelines, implementing pilots, training government health staff and private providers, and conducting workshops and awareness campaigns with community and religious leaders. In many countries we are working closely with professional medical associations, including FIGO national affiliates, to deliver national action plans focussed on, for example, reducing unsafe abortion. We are also working closely with governments to ensure that they understand and better comply with WHO guidance.
P1036
VAGINAL HEALTH CARE: A TOPIC OF NEGLIGENCE

B. Begum

VAGINAL HEALTH CARE: A TOPIC OF NEGLIGENCE

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Objectives: To assess Bangladesh women's menopausal symptoms and health problems related to vaginal atrophy.

Method: A retrospective study done in a private clinic during the period between 2012 and 2014, among the post menopausal women having different health related problems. A questionnaire was made regarding the vagina and sexual problem. Review study also done on different menopausal international journal.

Results: 65 women finished their menstruation more than 10 years back. 90% women have experienced at least one menopausal symptom, 60% associated with vaginal symptoms with menopause. Vaginal discomfort 38%, vaginal dryness 90%, and pain during sex 65%. 85% experienced vaginal disease more than 1 year. Lack of sexual intimacy 90%, Loving relationship less than 10%, self esteem affected 80%. Only 2% of those with vaginal discomfort used some form of treatment in the form of HRT. 90% of them in my study affected with abdominal discomfort.

Conclusions: Vaginal atrophy negatively affects women life. Lack of knowledge of the subjects hinder their approach to health care facility.

P1037
KNOWLEDGE AND PERCEPTION OF GENITO-URINARY FISTULAE BY NIGERIEN PATIENTS AND POPULATION BEFORE AND DURING CAMPAIGN TO END FISTULA

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Objectives: To determine the knowledge and perception of fistula patients and general population on the causes, names, social consequences, methods of treatment and ways of prevention of the condition.

Method: The survey was conducted in 1994–1995 and in 2012–2013. It involved 843 patients registered in 11 health centers nationwide and 954 healthy individuals from general populations in 1994; 215 patients in a national referral Centre and 300 people in 2012–2013. Trained health personnel administered to fistula patients and to individuals a questionnaire and focus groups discussions.

Results: The survey was conducted in 1994–1995 and in 2012–2013. It involved 843 patients registered in 11 health centers nationwide and 954 healthy individuals from general populations in 1994; 215 patients in a national referral Centre and 300 people in 2012–2013.

Conclusions: The End Fistula campaign had a slight positive impact on patients’ and population’s knowledge and perception of fistula.

P1038
ASSESSING THE BURDEN OF MATERNAL MORBIDITY IN MALAWI

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Objectives: Maternal mortality has been referred to as “the tip of the iceberg”. For every woman who dies, 20 or 30 more suffer morbidity related to pregnancy and childbirth. The major burden of these complications occurs in women living in low and middle-income countries. The aim of our research is to identify and measure maternal morbidity using a newly developed standardised, method. A better understanding of the burden of ill health during and after pregnancy will help inform care packages that aim to improve maternal health outcomes in low resource settings.

Method: A descriptive cross-sectional study in Malawi to assess maternal morbidity in pregnant and postnatal women using a new data collection tool that consists of a full health consultation during which a comprehensive questionnaire is administered in a face-to-face interview. The sections of the detailed questionnaire include general demographics, details of previous and current pregnancy complications, medications, domestic violence, use of alcohol, tobacco and substance abuse psychological wellbeing, and quality of life. Clinical (general, obstetric and/or pelvic if indicated) examinations and basic urine and serological investigations (haemoglobin, malaria, CRP, syphilis and HIV) are performed.

Results: Preliminary analysis from 194 women 59% of women were recruited from the antenatal period and 41% from the postnatal period. The majority of women are married housewives. 66% are multi-gravidae and 24% primigravidae. In regards to women’s perception of health, 89% reported feeling very good or good at the time of interview. One fifth of all women reported currently requiring a form of medication. Domestic violence was reported by 10% of women and 7% reported alcohol use during their pregnancy. Haemoglobin ranged from 5–14 g/L with an average of 11.4 g/L. 8% of women were diagnosed with malaria and syphilis.

Conclusions: Descriptive preliminary analyses demonstrate that it is possible to determine and identify the key components of maternal morbidity to create a “morbidity score” that can be used as a key maternal health indicator to monitor and evaluate maternal health programs both in the antenatal and postnatal context in middle-income settings. We await full data collection in June on a larger population scale (2000 women) in order to conduct full and comparative statistical analysis.

P1039
ASSESSING THE BURDEN OF MATERNAL MORBIDITY IN PAKISTAN

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Objectives: Maternal mortality has been referred to as “the tip of the iceberg”. For every woman who dies, 20 or 30 more suffer morbidity related to pregnancy and childbirth. The major burden of these complications occurs in women living in low and middle-income countries. The aim of our research is to identify and measure maternal morbidity using a newly developed standardised, method. A better understanding of the burden of ill health during and after pregnancy will help inform care packages that aim to improve maternal health outcomes in low resource settings.

Method: A descriptive cross-sectional study in Pakistan to assess maternal morbidity in pregnant and postnatal women using a new data collection tool that consists of a full health consultation during which a comprehensive questionnaire is administered in a face-to-face interview. The sections of the detailed questionnaire include general demographics, details of previous and current pregnancy complications, medications, domestic violence, use of alcohol, tobacco and substance abuse psychological wellbeing, and quality of life. Clinical (general, obstetric and/or pelvic if indicated) examinations and basic urine and serological investigations (haemoglobin, malaria, CRP, syphilis and HIV) are performed.

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Results: 1 in 5 women report a previous pregnancy complication with 1 in 10 overall reporting a previous neonatal death or stillbirth. Admission to a health facility for previous pregnancy complications was 13.8%. One in five of women report a previous Caesarean section. 53% of women have at least one physical morbidity. Multiple morbidities were uncommon (<10%). 26.9% of women report psychological morbidity.

Conclusions: We present a new data collection tool to identify and measure maternal morbidity in a comprehensive, holistic and robust way. We aim to determine the certain markers of morbidity that can be combined and used to provide a maternal morbidity “score” both in the antenatal and postnatal periods. We envisage this “morbidity score” can be used as an outcome measure to assess the effectiveness of interventions implemented, especially in the development of evidence based antenatal and postnatal care bundles in low and middle-income countries.

P1040
ASSESSING THE BURDEN OF MATERNAL MORBIDITY IN KENYA
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Objectives: Maternal mortality has been referred to as “the tip of the iceberg”. For every woman who dies, 20 or 30 more suffer morbidity related to pregnancy and childbirth. The major burden of these complications occurs in women living in low and middle-income countries. The aim of our research is to identify and measure maternal morbidity using a newly developed standardised, method. A better understanding of the burden of ill health during and after pregnancy will help inform care packages that aim to improve maternal health outcomes in low resource settings.

Method: A descriptive cross-sectional study in Kenya to assess maternal morbidity in pregnant and postnatal women using a new data collection tool that consists of a full health consultation during which a comprehensive questionnaire is administered in a face-to-face interview. The sections of the detailed questionnaire include general demographics, details of previous and current pregnancy complications, medications, domestic violence, use of alcohol, tobacco and substance abuse psychological wellbeing, and quality of life. Clinical (general, obstetric and/or pelvic if indicated) examinations and basic urine and serological investigations (haemoglobin, malaria, CRP, syphilis and HIV) are performed.

Results: Data collection is due to commence in Kenya in April 2015. We expect full data collection in August on a larger scale (2,880 women) in order to conduct full statistical analysis. We plan to evaluate the occurrence of each risk factor, symptom and sign of maternal morbidity individually and then collectively into system-specific disease patterns, e.g. cardiovascular, gastrointestinal and neurological. The framework used for further categorisation will use an adapted version of the causes and classification for maternal mortality as outlined in the WHO International Classification of Disease – Maternal Mortality (ICD-MM).

Conclusions: We present a new data collection tool to identify and measure maternal morbidity in a comprehensive, holistic and robust way. We aim to determine the certain markers of morbidity that can be combined and used to provide a maternal morbidity “score” both in the antenatal and postnatal periods. We envisage this “morbidity score” can be used as an outcome measure to assess the effectiveness of interventions implemented, especially in the development of evidence based antenatal and postnatal care bundles in low and middle-income countries.
Results: Of 547 FSWs included in the present analysis, 330 (60.3%) utilized WISH services over the 30-month period. In multivariate GEE analysis, use of WISH was independently associated with age (adjusted odds ratio [AOR]: 1.04; 95% confidence interval [CI]: 1.03–1.06), Aboriginal ancestry (AOR: 2.18; 95% CI: 1.61–2.95), injection drug use (AOR: 1.67; 95% CI: 1.29–2.17), exchange of sex for drugs (AOR: 1.40; 95% CI: 1.15–1.71) and accessing SRH services (AOR: 1.65; 95% CI: 1.35–2.02).

Conclusions: Results demonstrate high uptake of a sex work specific drop-in space for marginalized FSWs. Women-centered and low-threshold drop-in services can effectively link marginalized women with SRH services.

P1043
ATTITUDE TOWARDS FEMALE GENITAL MUTILATION AMONG SUDANESE MEN AND WOMEN LIVING IN SAUDI ARABIA
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Objectives: The aim of this study was to assess the attitude towards Female Genital Mutilation (FGM) among Sudanese men and women living in Saudi Arabia.

Method: Prospective observational study using a questionnaire designed to assess the attitude of 518 Sudanese men and women living in Jeddah, Saudi Arabia towards FGM.

Results: Respondents were also asked about their opinion about FGM and 344 (66.4%) said they are against FGM, 132 (25.5%) said they are with FGM, 9 (1.7%) said the do not know, and 33 (6.4%) did not answer. When asked if FGM is a religious thing, 328 (63.3%) said no, 110 (21.2%) said yes, 63 (12.2%) said do not know, and 17 (3.3%) did not answer. When asked if living in Saudi Arabia changed their views on FGM, 202 (39%) said no, 282 (54.4%) said yes, 19 (3.7%) said do not know, and 15 (2.9%) did not answer.

Conclusions: Community-led strategies to abandon FGM may help to empower men and women to change their attitudes and to critically examine their tradition.