PODIUM ABSTRACTS

Physicians’ Understanding of Nutritional Factors Determining Brain Development and Cognition in the Middle East and Africa Abstract.

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BACKGROUND: Proper nutrition is essential for brain development during infancy, contributing to the continued development of cognitive, motor, and socio-emotional skills throughout life. Considering the insufficient published data in the Middle East and North Africa, experts drafted a questionnaire to assess the opinions and knowledge of physicians on the impact of nutrition on brain development and cognition in early life.

METHODS: The questionnaire consisted of two parts: The first focused on the responders’ demographic and professional characteristics and the second questioned the role of nutrition in brain development and cognition. Descriptive statistics were used to summarize respondents’ characteristics and their responses to questions.

RESULTS: A total of 1,500 questionnaires were distributed; 994 physicians responded. The majority of the surveyed physicians (64.4%) felt that nutrition impacts brain development in early childhood (0–4 years), with almost 90% of physicians agreeing/strongly agreeing that preventing iron, zinc, and iodine deficiency would improve global intelligence quotients. The majority of physicians (83%) agreed that head circumference was the most important measure of brain development. The majority of physicians (68.9%) responded that the period from the last trimester until 18 months post-delivery was crucial for brain growth and neurodevelopment, with 76.8% believing that infants breast-fed by vegan mothers have an increased risk of impaired brain development.

CONCLUSION: The results of this study show that practicing physicians significantly agree that nutrition plays an important role in brain and cognitive development and function in early childhood, particularly during the last trimester until 18 months post-delivery.

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Increasing the exclusive breastfeeding rate in mediclinic city hospital as part of the global strategy

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BACKGROUND: Breastfeeding is a foundation of child survival and health because it provides crucial and irreplaceable nutrition for a child’s growth and development. International experts recommend breastfeeding as the optimal feeding method with several documented benefits for both infants and mothers. The 5th global nutrition target by 2025 endorsed by the World Health Assembly Resolution is to increase the rate of exclusive Breastfeeding in the first 6 months up to at least 50%. WHO and UNICEF are highly encouraging hospitals to improve their support and assistance of breastfeeding mothers and infants.

Aims: To increase the rate of exclusive breastfeeding by implementing the Baby-friendly Ten Steps to Successful Breastfeeding outlined by WHO, UNICEF.

METHODS: A committee was created with a work plan to identify the areas that need improvement. An Infant Feeding Policy as a guideline for all staff, a patient education plan and a data collection plan established. Then, an education plan for staff created and more than 350 staffs including physicians, midwives, nurses, allied staff who were involved with the care of pregnant women, mothers and babies were educated to implement the Baby-friendly 10 steps. The empowered staff started to educate and support mothers during pregnancy, all through birth and hospital stay and continued the care after they went home in the clinic.
RESULTS: Breastfeeding rates over 3 years from 2016 to 2019 improved due to the practice:
- The rate of initiation of breastfeeding within first hour of birth increased from 70% to 92%.
- Exclusive breastfeeding rate during hospital stay increased from 60% to 92%.
- Exclusive breastfeeding rate at 6 months increased to 68% which is 28% higher than the worldwide rate published by WHO, UNICEF in 2019.
- Furthermore, the rate of skin to skin immediately after birth for minimum one hour after birth increased from 30% to 91% which prepare infants for initiation of breastfeeding.

CONCLUSION: Implementing the Baby-Friendly Ten Steps to Successful Breastfeeding resulted in significant increase in initiation and exclusive breastfeeding rate at discharge and up to six months of age. This practice also worked towards the Baby-Friendly award for Mediclinic City hospital in June 2019 as the first Baby-Friendly designated private hospital in Dubai. The study showed that creative approaches and strategic education for staff and parents can create a favorable environment that breastfeeding is normal and more mothers choose breastfeeding as the optimum way of feeding their babies.

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Counselling parents of premature babies. a novel approach. Dr. Zahreddin Abusalah - Consultant Neonatologist, Mediclinic City Hospital, Dubai, UAE.

INTRODUCTION: Counselling of parents expecting a preterm baby is a challenging experience that requires special expertise and knowledge. Despite its importance, there is no standard approved approach to conduct it.

Aims:
- To highlight the importance of effective communication with parents.
- To suggest a structured approach for counselling.

METHODS: The presentation will provide an overview of principles and contents of the counselling session. Although this has been the subject of several reviews and statements, there is a lack of a structured approach for conducting the consultation.

Outcomes of premature infants contribute to a major part of the consultation with parents. Therefore, the presentation will examine the latest available evidence about various aspects of outcomes of preterm babies.

The presentation will include video clips from my teaching video on counselling. The video was recorded with real parents of a premature baby.

CONCLUSION: A structured standard approach will help the healthcare professional to perform such a stressful task efficiently in a reproducible model. This may serve as a training tool too. To my knowledge, the counselling video of this presentation is the first of its kind in utilising a structured approach with the participation of real parents.

A Study to Analyse the Effectiveness of Physical Therapy and Wedged Foot Orthotic Devices on Pain in Runners with Pronated Foot

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INTRODUCTION: Running is one of the most popular forms of aerobic exercises and widely perceived to be beneficial to the cardiovascular and musculoskeletal endurance. In recent years, experts noted an increasing rate of injuries (24 - 65%) occurring in long distance runners and suggested that these injuries are related to the tremendous demands put on their lower extremities during running.

AIM: The Aim of study is to find out the effectiveness of Physical therapy and wedged foot orthotic devices used to reduce the pain and delay the onset of pain in runners with pronated foot.

METHODS: The study was pre-test and post-test experimental study design. All the subjects underwent a clear examination to diagnose the navicular height and pronated foot were selected and divided into two groups. The subjects were instructed clearly on the study, the potential benefits and harms of the study was adequately explained to the subjects, they were given 24 hours to confirm their participation, their willingness to participate was obtained and the subjects had permitted to withdraw from study at any point of time. Informed consent was obtained from all the participants and the study was approved by the tertiary hospital ethical committee.

The pronated foot was defined by:
1. Navicular height difference between weight bearing and non-weight-bearing stance > 10 mm.
2. Non-weight-bearing rear foot Varus > 5 or weight-bearing calcaneal valgus > 5.

The subject selection was based on the inclusion and exclusion criteria. The subjects were explained with VAS for pain and 60 minute Treadmill running test. 20 subjects were randomly selected and assigned into two groups. In Group A (Experimental) received a flat insole with 5 rear foot posting. The insole was made of -2mm Poron, a rubber-like material with good impact absorbing capability, and the rear foot posting was made from an off-the-shelf 5 wedge of ethyl vinyl acetate (EVA). The medial wedge extended from the lon- gitudinal midline to the medial edge of the insole and was 6 to 8 cm in length depending on subject’s foot size. Subjects underwent a physical therapy session for 4 days per week. One session stands for duration of 30 minutes.
CONCLUSION: Thus the study concluded that physical therapy and wedged foot orthotic devices helps in reducing pain intensity and delays the pain onset of runners with pronated foot. ACKNOWLEDGEMENTS: Authors are thankful to all the Team members of the Tertiary Hospital, Al Ain, UAE.

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Dilemma of management of Reflux post weight loss surgery Is “Amir’s UAE Repair” an answer? K Amir, M Verheij, N Toba, A Abdalla, S Yousaf, Z Nimer, A Nizar Obesity is one of the many factors causing reflux [1-3]. When patients undergo weight loss surgery their reflux may improve, however many continue to get reflux. There is a significant group of patients whose reflux becomes much worse after the reflux surgery due to change in anatomy and function of stomach despite a good weight loss [4-5]. Standard surgery for reflux is commonly done in the form of Nissen’s fundoplication [6], which helps to prevent reflux by wrapping the fundus (upper stomach) around the lower end of esophagus. In common weight loss operations like sleeve gastrectomy and Proximal gastric bypass operations this part (fundus) of the stomach is removed, thus leaving nothing behind to wrap the lower esophagus to prevent reflux in the patients who have undergone weight loss surgery. These patients with a lose Lower Oesophageal Sphincter (LOS) at times with a lax hiatus and a hiatus hermia [7] suffer from reflux and fail to lose weight or maintain their weight loss [4]. The reason being that there is no cephalic restriction and the esophagus also becomes a reservoir in addition to the gastric tube or the pouch, hence increasing the capacity of the food reservoir allowing larger portion sizes for the patients to eat.

In addition, there is an issue to reflux causing heartburn, water brash, Cough, sore throat, cough, Pharyngitis, sinusitis, exacerbation of asthma or recurrent chest infections due to aspirations [8]. The esophagus is at an increased risk of Inflammation, Ulcers, Stricture formations, Barrett’s oesophagus and Cancer of oesophagus [2,9].

This issue is topical and debated in every Bariatrics meeting across the globe and generally the proposed options are very few and unsatisfactory:

1. Recommendation for patients with sleeve gastrectomy: “To consider offering a bypass operation to those who had a sleeve gastrectomy surgery and have reflux”. Flaw with this advice is that these are the patients who chose not to have a bypass operation in the first instance and preferred a sleeve gastrectomy over a bypass operation [1]. Why deal with the reflux complication of a sleeve gastrectomy with another complex bariatric operation?
2. Recommendation for patients with Proximal Gastric bypass operation: “This group of patients is offered resection of the Gastric pouch and to convert the Proximal Gastric Bypass surgery to Roux en Y Oesophago Jejunostomy”.

The issue here is that the patient will face an uncertain outcome which will probably prevent reflux but without the restrictive component of the primary weight loss operation and doubtful outcome regarding weight loss from then on. Overall portion size will be considerably more than the Proximal gastric bypass surgery. Both options suggested are potentially failures of the initial weight loss surgery [10] and cannot be considered as corrective procedures for a complication of the first surgery but a reversal of the operation with primarily one goal; to prevent reflux.

These unsatisfactory decisions and surgery have created a feeling of uncertainty and dissatisfaction among bariatric surgeons [11].

We propose a stepwise approach to avoid such scenarios and handle the patients with post bariatric surgery patient with reflux appropriately when encountering this scenario:

1. Prevention in the first instance:
   a. Appropriate assessment of the patients with reflux to be identified in the work up before performing the bariatric procedure
   b. Appropriate testing which is performing an endoscopy and possibly oesophageal physiological studies if indicated.
   c. Council the patient regarding the Antireflux surgery and a definitive and standard antireflux procedure while performing the primary bariatric surgical procedure.
2. Corrective treatment in patients presenting with reflux after weight loss surgical procedure:
a. Appropriate clinical assessment by surgeons with expertise in antireflux surgery.
b. Investigations in the form of gastroscopy and physiological studies.
c. Multidisciplinary approach by the antireflux surgery team to discuss the results of investigations and proposed treatment.
d. The surgical procedure to be carried out in the refluxers post Bariatric procedure patients by expert surgeons in antireflux surgery.

We have performed two surgeries for patients with severely debilitating reflux after sleeve gastrectomy surgery. Both had some initial weight loss but later regained some weight. Volume reflux caused severe burning sensation in chest, sore throat, cough and inability to lie flat. Poor quality of life and ongoing discomfort were common features.

The technique of Laparoscopic “Amir’s UAE Repair”

After the initial success of these patients we have planned a prospective study for these patients to assess their quality of life after this surgery.

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Immature granulocytes range is potential biomarker in peripheral enthesitis

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INTRODUCTION: Immature granulocytes (IG) level in peripheral blood is used as early sign of infection. On the other hand IG could be elevated in other conditions like inflammatory or cancerous diseases and in pregnancy. Similar to CRP, we have observed a series of cases of peripheral enthesitis associated increased level of IG and correlated with CRP elevation and clinical activity.

METHOD: To test the concept of IG as a biomarker in peripheral enthesitis, we have identified 13 cases over the last 12 months at the Rheumatology clinic in our centre who have shared two features (clinical enthesitis and elevated IG) those 13 cases presented with recurrent foot and ankle pain and swelling of enthesitis nature.

RESULTS: The cohort is of equal gender distribution 46/54% respectively and age range 31-53 years (mean age 38.5), only 3 patients are known to have Psoriatic arthritis whilst the rest either undiagnosed or diagnosed Rheumatoid arthritis or gout prior to clinic visit. The rheumatologist clinical diagnoses are of enthesis of foot, ankle, knee and hip area as shown on the table [1] apart from one patient who has spinal symptoms mainly. 4/13 patients have the history of psoriasis and after their visits we find them fit in the CASPAR criteria for psoriatic arthritis. All these cases are associated with increased absolute number of IG as well as differential (IG) number compare to 10/13 of these cases are having high CRP. The 3 cases with normal CRP do have relatively slight increase in (IG) number. The main correlation is of response to therapy and was seen in 7 cases who have followed up at the time of submission and it shows a 100% correlation between CRP, absolute (IG) and differential (IG) values. There are 3 patients who have elevated (IG) but normal CRP and it would possible indicate (IG) test has a better yield than CRP in peripheral enthesitis.

CONCLUSION: Immature granulocytes can be elevated in inflammatory disease and more notably in peripheral enthesitis of the lower limbs of inflammatory rather than mechanical nature and do correlate with CRP elevation as well as response to therapy. Larger studies are need to assess the usefulness and validity of (IG) level in clinical practice.

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Capture the Fracture Program (FLS) for Osteoporosis at Mediclinic Welcare Hospital The Fracture Liaison Service (FLS)

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BACKGROUND: Studies have shown that as few as 10% of women with fragility fractures receive osteoporosis therapy. Patients with a recent fragility fracture after the age of 50 years are at increased risk of sustaining a subsequent fracture. Subsequent fracture risk is highest within the first 2 years after a fracture and subsequent fractures are associated with an increased morbidity and mortality resulting in a high financial burden for healthcare.

METHODS: FLS are proposed as the most successful approach for secondary fracture prevention. This FLS approach starts with the identification of patients with a fragility fracture (case finding), followed by assessment of clinical risk factors for subsequent fractures and secondary osteoporosis (including bone density, imaging of spine, laboratory assessment), treatment initiation (if indicated) and adequate long-term follow-up to improve treatment adherence.

In 1999, McClellan and colleagues initiated the first fracture liaison service (FLS) in the UK, since then, several FLSs have been initiated from different medical departments in hospitals all over the world as supported by the International Osteoporosis Foundation (IOF), European League Against Rheumatism (EULAR)/European Federation of National Associations of Orthopedics and Traumatology (EFORT) and American Society for Bone and Mineral Research (ASBMR) task force.

RESULTS: FLS workshop was conducted in Dubai on 29/11/2019 as a collaborative initiative between IOF and EOS. It was the first workshop of its kind to be held in UAE. Participants from seven different hospitals in UAE attended including Mediclinic Welcare hospital. Each FLS unit will consist of an orthopaedic surgeon, a rheumatologist or Endocrinologist with interest in Osteoporosis and a dedicated nurse who will trace fracture cases from the medical records and arrange for such patients their follow ups.

CONCLUSION: FLS unit will be functional in MWEL as the first unit in UAE of its kind to capture the osteoporotic fractures at an early stage for a better management of osteoporosis and prevention of fragility fractures.

| Sex | Age | Diagnosis before referral | diagnosis at rheumatology clinic | CRP prior | IG% < 0.5% | IG absolute < 0.03 | treatment | CRP after | IG% | IG absolute |
|-----|-----|---------------------------|---------------------------------|-----------|------------|-------------------|-----------|-----------|------|-------------|
| M   | 40  | Gout                      | Penoreal lenevynorit            | 2         | 0.60%      | 0.04              | Steroids  | 2         | 1.6%| 0.9        |
| M   | 50  | Inflammatory arthritis    | peroneal and Tibialis posterior tendinitis | 19 | 0.90% | 0.09 | Steroids and MTX | 10 | 0.50% | 0.03 |
| M   | 44  | none                      | Peripheral enethits and spondyloarthritis | 20 | 0.70% | 0.07 | Methotrexate | awated |          |      |             |
| F   | 51  | Seronegative arthritis    | Seronegative arthritis on Sulphasalazine | 24 | 0.80% | 0.04 | Increased dose | 17 | 0.2 | 0.01 |
| F   | 41  | Rheumatoid Arthritis/Plaquinil | Enethitis, Ant.Tibial, Achilles, planters | 17 | 1.50% | 0.08 | steroids | n/a | n/a | n/a |
| F   | 47  | Rheumatoid Arthritis/Enbrel | Plantar fasciitis bilateral / Ischial pain | 15 | 0.70% | 0.07 | add MTX /remicade | 12 | 0.50% |          |
| M   | 33  | Plantar fasciitis         | Plantar fasciitis, thigh, seronegative arthritis | 18 | 1.00% | 0.1 | Adalimumab | 1 | 0.70% | 0.03 |
| M   | 42  | Plantar fasciitis         | Plantar fasciitis / at rest | 4 | 0.90% | 0.05 | Etoricoxib | n/a | n/a | n/a |
| F   | 31  | Undiagnosed               | Ankylosing Spondylyitis/SI, Knees, platars | 30 | 0.50% | 0.05 | Secukinumab | n/a | n/a | n/a |
| F   | 32  | Psoriasis ?PSA            | Psoriatic Arthritis / DIP | 4 | 1.00% | 0.07 | Ancoxia | n/a | n/a | n/a |
| M   | 33  | PSA, PSA, Spinal disease | PSA, PSA, Spinal disease/Enbrel | 13 | 0.60% | 0.06 | beilkumab | 7 | 0.30% | 0.03 |
| F   | 42  | PSA                       | PsA, Achilles and Plantars | 21 | 1.00% | 0.11 | Golimumab | 9 | 0.40% | 0.04 |
| F   | 35  | PSA on Secukinumab / failing | PsA, Knees tendinopathy | 9 | 0.70% | 0.07 | to switch | n/a | n/a | n/a |

The new Gold standard in hernia surgery? Needlescopic Mini-Scar-less (MSL) Totally Extra Peritoneal (TEP) Inguinal hernia repair

K Amir, M Verheij, A Ali, S Yousaf, Z Nimer, A Abdalla, A Nisar

Laparoscopic surgery brought a major advancement in the field of surgery by reducing the trauma to the patient and improving the immediate, short, medium- and long-term outcomes of the patient and of course better cosmesis.[1] The pain scores came from 6-8 after open surgery, down to 2-4 after minimal invasive hernia surgery.

Since the first ever Laparoscopic Totally Extra Peritoneal hernia (TEP) operation was done in 1988 by Dulucq, more than a score and ten; there has been little improvement in the surgery. The cosmosis though excellent and pain scores in the lower third of the scale still needed improvement.

Totally Extra Peritoneal repair of groin for Inguinal, femoral and Obturator hernias has become the gold standard over the last three decades. It offers far superior results than conventional open approach regarding less post-operative pain[2], early mobilisation, early return to activity, decrease length of hospital stay [3], early return to driving, early resumption of exercise, early return to work [4], lesser chance of hernia recurrence [5] and chronic pain due to surgery in unilateral, bilateral and recurrent inguinal hernia surgery.[1,4,6] This has been acknowledged by National Institute of Clinical Excellence (NICE), United Kingdom through great work and efforts of Professor Michael Bailey. Professor Bailey has been instrumental in developing, refining and popularising the technique initially in United Kingdom and later in Europe and the rest of the world. Author had the honour of working closely with him, teaching and training surgeons. Professor Amir has also contributed with his personal work and a study in hernia surgery to the National Institute of clinical Excellence (NICE) United Kingdom.

Groin hernia repairs account for over 20 million surgical procedures annually worldwide [7,8]. Nearly 85,000 groin hernia surgeries are carried out annually in United Kingdom; only less than 10% of these operations are carried out laparoscopically [3], the rest are done with open conventional technique.
One reason might be that this operation is considered to be complex and many experienced surgeons in groin hernia surgery find the adaptation of Laparoscopic Totally Extra Peritoneal (TEP) hernia challenging. The learning curve has been considered as long and surgical trainers’ fraternity considers this to be between 40-100 to perform simple hernias and between 400-600 hernia operations to handle all comers [9].

The standard operation requires three cuts in the lower abdomen with accumulative incision’s length of 3–4 cm. The technique involves Balloon dissection kit for camera port and two other working ports.

We had improved this technique to Needlescopic Hernia repair with accumulative incision’s length of 1.6 cm, offering much better cosmesis and less post-operative pain at the port sites in the abdominal wall since 2018. Most recently we have introduced a further improved version of the technique and now we perform the same operation through a total incision size of nearly just 1 cm. Cosmetically this is a much superior operation than its previous versions. There are scars in the lower abdomen, hence mini-scar, however the size in so small that these cannot be identified by an on looker even to some trained surgeon in the post-operative stage, thus the addition to the name of the technique; Mini-Scar less TEP repair. Though the cuts in the abdominal wall are minimal; however, the operation is carried out exactly the same way as in a standard Totally Extra Peritoneal operation. Surgeons with expertise in Totally Extra Peritoneal technique will be able to adapt this technique for better outcomes of their patients, if they followed some key steps of Needlescopic Mini-Scar less (MSL) Totally Extra Peritoneal Inguinal hernia repair for suitable patients. The technique of Needlescopic Mini-Scar less (MSL) Totally Extra Peritoneal Inguinal hernia repair Patient Position and theatre set up: Supine as for TEP repair with arms tucked to the sides with inkopads.

Monitor towards the foot end of the patient. If two monitors available in integrated theatre then a monitor by either side of the patient at level to patient’s knee.

Surgeon stands on the left side of the patient (if right-handed; or vice versa) Assistant/Camera Person stands on the left side of the patient.

Once the ports are placed then the surgeon and camera person move opposite to side of the hernia.

An Intra-Infero-Lateral 5 mm incision is made in the skin after infiltration and raising of the skin with size 11 blade 5 mm visiport with doughnut at tip is used to enter through the cut inferolaterally at an angle of 60 degrees to reach the anterior rectus sheath. 5 mm 30 degree camera is used throughout the operation.

Anterior sheath penetrated and the rectus abdominus muscle separated and the port advanced anterior to the posterior rectus sheath for approximately 1 cm.

The trocar of the port is removed, Co2 tubing attached to trocar and pressure set to 12 mm of Hg and camera reintroduced in the port and some blunt dissection of the extraperitoneal space done and port and camera further advanced under vision. The dissection is continued posterior to the width of the rectus abdominus muscles till the pubic synphysis is reached.

1st 5 mm port is fully inserted over the camera, It’s balloon at the tip is inflated with 2.5 ml of air, port retracted and secured in a position as proximal as possible.

2nd port, 3 mm in size is placed in midline 5 cms below the umbilical port after preinfiltration with local anaesthetic.

3rd and final port, 3 mm in size is placed in midline 4 cm below the second port after preinfiltration with local anaesthetic.

Right and left hand 2.5 mm instruments are placed through the working ports and dissection done in routine as for a standard Totally Extraperitoneal repair.

Hernias are reduced widely, haemostasis assured and extraperitoneal space is prepared ensuring safety in all areas especially the triangle of doom and other structures including fine nerves. Any lipomas of cord are also reduced following the principals of Totally extra Peritoneal repair.

A 15X12 cm mesh is prepared by trimming a 15X15 cm light weight mesh. A horizontal line is drawn across the mesh as a reference and the lateral edges are trimmed round for orientation of the mesh during its placement in the extraperitoneal space.

The mesh is rolled and tied with 2/0 vicryl long at its medial end.

The long 2/0 vicryl strand introduced through the 5 mm Umbilical port and then the camera introduced by its side. The end of the tie is picked up with a grasper through the lowest port.

Camera is removed and the mesh railroaded through the 5 mm port and pushed in with the camera. The tied mesh is orientated in appropriate position, held it left hand instrument and the tie cut and removed with 2.5 mm scissors. The mesh is unrolled and positioned appropriately.

We do not secure the mesh in place in majority of our cases except in large direct hernias.

CO2 gas is retrieved, 3 mm ports removed, balloon deflated and 5 mm port removed as well. Local anaesthetic is infiltrated on the sheath of 5 mm port and the skin closed with 5/0 absorbable Subcuticular suture.

The 3 mm ports wounds are approximated with steristrips. Opsite dressings are applied on 3 wounds.

RESULTS: We have performed 3 operations so far; one unilateral and two bilateral hernias. The recovery has been uneventful.

Patients, operating surgeons and the out patient’s nursing staff are pleased with the cosmetic results and minimal, difficult to identify scars as soon as 1 week after the surgery.

A prospective study is being done to compare operative time, post-operative pain, post-operative mobilisation, cosmetic outcomes, time taken for recovery and return to work.

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INTRODUCTION: Colorectal cancer (CRC) is the third most common cancer, and is the second leading cause of UK cancer deaths, killing 16,000 people each year. And it is estimated that 51,020 deaths in the USA. Screening aims to detect colorectal cancer at an early stage, in people with no symptoms, and can detect non-cancerous polyps and adenomas, which could develop into cancer over time, which can then be easily removed and reduce the risk of cancer developing. Thus, regular colorectal cancer screening can significantly reduce the risk of mortality. Aim: The aim of the present study was to compare fecal immunochemical tests (FITS) for colorectal cancer (CRC) screening with the traditional guaiac-based FOB tests (gFOBT).

METHODS: Prospective study in a single centre in a large private hospital (Mediclinic Parkview) for the period of 1st November - 31st December 2019 for patients living in United Arab Emirates. Ages between 15-55 years, for a period of 2 months. A standard FOB test provided in addition to the FIT test at the same time for 60 patients during this period. Laboratory analysis performed on same day on both tests.

RESULTS: Sixty-nine patients over this short period screened with FIT and FOBT. Patient with FOBT test positive were 16% (10/69) and FIT were 30% (18/69). Within these patients, we picked up 3 colon cancer patients on FIT. There was 1 false negative in the FOBT arm and 5/69 false positive (7.2%) and this makes it less specific for CRC screening.

CONCLUSION: In our prospective study, the Fecal Immunochemical Test (FIT) indicated that the introduction of this test as the first line screening test is likely to increase pick up rate of adenoma by an extra 50% and this led to subsequent colon cancer prevention. As it has shown FIT, test positive was 30% compared to the guaiac fecal Occult Blood Test (FOBT) 16% that is currently used. The current study also showed that participants reported much higher intentions to complete and return the new fecal Immunochemical Test (FIT) versus the current guaiac fecal Occult Blood Test (FOBT). Furthermore, we have noticed that when the FIT test is highly positive the FOBT is negative this gives an indication that this loses its sensitivity when there is a large amount of blood in the stool. Further study should be conducted on this to find the cut off level for positive FIT test. We recommend that Mediclinic Middle East initiate FIT test for bowel Cancer screening as a standard method for all associated hospitals and clinics due to the high sensitivity and specificity.

Comparison of biomarkers among 34855 Gl cancer samples shows heterogeneity of tumor types.

DR. SALIM CHAIB RASSOU
Dr. Shaheenah Dawood MD - Assoc. Professor of Clinical Oncology, Consultant Medical Oncologist - Mediclinic City Hospital, Dubai, UAE

BACKGROUND: Recent data indicate that biomarker driven use of targeted therapy and I/O-therapy among patients with GI cancer is associated with improved outcome. The presence of biomarkers varies broadly between different GI tumor types, highlighting the importance of comprehensive molecular profiling. To analyze the presence of various alterations in GI cancer samples of a large database, comparing congruency between various tumor types.

METHODS: A retrospective data analysis of 34855 GI cancer patients profiled at CARIS Life Sciences obtained from Jan 1, 2010 till Sep 14, 2018 was performed. GI tumors were classified as CRC, esophageal/gastric/GIST, small intestine, pancreatic/hepatobiliary/liver. Technologies used to analyze the biomarkers:
IHC for PD-L1, MMR and Her2, and DNA-NGS for EGFR, BRAF, KRAS, NRAS, MET-CNV, TMB, MSI, POLE and BRCA1/2.

RESULTS: Median age was 61 range (18-89 years). 51.5% was CRC (n=18047), 15.5% was esophageal/gastric/GIST (n=5470), 3% was small intestinal cancer (n=886) and 30% was pancreatic/hepatobiliary/liver cancer (n=10452). Information on biomarkers was available from 2931 cases for MET amplification to 28536 for RAS mutation. Overall, the most common finding was a pathogenic RAS-mutation in 7650 cases (26.81%), the rarest one was a mutation in EGFR in 12 cases (0.06%). Higher rate of HER2 amplification was observed among pts with esophageal/gastric/GIST tumors (6.5%) in comparison to tumors at other GI sites (~1.5%). High TMB was seen among patient with CRC and small intestine tumors (~7%) while it was lowest among pancreatic cancer (1.8%). Compared to other GI sites lower MSI/MMR deficiency rates were observed in pancreatic / hepatobiliary tumors, significantly higher PD-L1 positivity was observed in gastroesophageal cancer types, increased MET- amplifications in gastroesophageal and small intestinal cancer types and lower RAS-mutation rate in gastroesophageal cancer.

CONCLUSION: Molecular profiling analyzing druggable biomarkers can help identify patients with increased likelihood for benefit from immune-checkpoint-inhibitors and targeted therapies. Further investigations are needed to evaluate the different findings in various GI cancer types.

Clinical Benefits of Implementing DIBH in Breast Radiotherapy

DR. SALIM CHAIB RASSOU

- EBCTCG u s e of RT after Breast Conservative Surgery (BCS) or after mastectomy in N+
- Not only reduces Local Recurrence (LR), but also improves long-term survival.
- Absolute reduction in the 5-year rate of LR was proportional to the absolute reduction in 15-year breast cancer mortality with a 4:1 ratio.
- RT for breast cancer inadvertently delivers ‘excessive’ dose to the heart,
- Increased rate of late cardiac deaths closely linked to mean cardiac doses > 5 Gy
- Technical innovations in radiotherapy minimize cardiac irradiation.

Full benefit in overall survival requires radiotherapy’s technique that minimizes cardiac dose and avoids the late cardiac mortality seen with older techniques and irradiation of large cardiac volumes (14)

What is considered an acceptable treatment plan?

Target coverage with respect to dose to (OAR) and good dose distributions
- There is lack of consistency among institutions or individuals
- To improve patient standard of care:
- There is a need to define a consistent and transparent TRT path for all patients
- Reduces significance variations in the acceptability of treatment plans.
- DIBH, facilitated by respiratory gating, significantly reduced:
- The volume of heart and abdominal contents treated to high dose,
- Well tolerated,

Highly reproducible and accomplished within acceptable treatment times in a busy radiation therapy department. (12)

Improved heart, lung and target dose with deep inspiration breath hold in a large clinical series of breast cancer patients (13)

So far we have treated near 1000 with this technique in two centers, our preliminary analysis consist of 319 breasts Cancer,

- 144 left-sided DIBH and
- 175 free-breathing (FB) (83 L and 92 R).

DIBH plans show large reductions of dose to the heart compared with left-sided FB plans
- UV20 Gy for the heart is reduced from 7.8% to 2.3% (70%, $p<0.0001$),
- V40 Gy from 3.4% to 0.3% (91%, $p<0.0001$)
- Mean dose from 5.2 to 2.7 Gy (48%, $p<0.0001$).
- Lung V20 Gy reduced ($p<0.04$)
- Median target coverage is slightly improved ($p=0.0002$).

CONCLUSION: Implementation of DIBH in daily clinical practice results:

- In reduced irradiation of heart and lung, without compromising target coverage.
- Provides an unequivocal benefit

1. Reduction in cardiac dose for left-sided with (DIBH) compared (FB)
2. Same for (FB-IMRT) and (3D-DIBH) reduce cardiac irradiation
3. At 20 years cumulative risk of cardiac death of 6.4% compared with 3.6% for patients with right-sided breast cancer. (1)
4. IMRT used for adjuvant treatment of breast cancer has shown improved target coverage as well as lower doses to cardiac structures. (2,3)
5. The use of (DIBH) during tangential breast radiation therapy has also proved to be a high-quality means of reducing the cardiac volume that receives the radiation dose

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Somatic mutation and copy number variation(CNV) characterisation of patients receiving (neo)adjuvant therapy for early breast cancer in a multi ethnic Middle-Eastern cohort

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INTRODUCTION: Cancer arises from a series of well-known causes: Aging (the clock mechanism of cellular turnover and daily DNA repair), Tobacco smoke, betel nut, diesel fumes, alcohol,
cured meats, viruses e.g. HBV, HPV, EBV, sunlight, background radiation. These carcinogens induce DNA and epigenetic DNA changes which can be measured using DNA signatures e.g. DNA Damage & repair as well as meDNA signatures. These signatures can be categorized into carcinogenic processes such as kaetegis, chromothrypsis & chromoplexy amongst others. Finally, cancers are heterogenous meaning that as they evolve from one cell they undergo a variety of evolutionary growth patterns that mean not all cells carry the same molecular make-up.

Breast cancer in women from the Middle East is characterized by younger age, more advanced stage at presentation and a higher proportion with TNBC. In TCGA and ICGC molecular data from the Middle-East is under-represented. The objective of this study was to define the molecular parameters of breast cancer in a prospective cohort of women diagnosed in a Middle Eastern breast cancer referral centre receiving (neo) adjuvant systemic therapy. We examined the association between primary biopsy and pathological tissue response (RCB criteria) integrating molecular pathology using massive parallel sequenc- ing analyses.

METHODOLOGY: We designed a custom 1000 gene panel using Illumina IDT capture-based assay design and sequenced tumour samples to greater than 500X coverage with matched tumour normals. Sequencing analysis and variant calling were performed using Broad GAKT best practice; BWA, Mutect2, Oncotator pipeline. CNV data was analysed using panelcn.MOP and seqCNV.

RESULTS: 57 women were enrolled (June 2016-October 2017). Median age was 45yrs. 10.5% were of middle-eastern origin, 24.5% from North Africa, 42.1% from Asia and 22.9% from Europe/North America. 4%, 53%, 44% had stage I, II and III disease respectively. 16%, 70%, 14% had TNBC, HR+/HER2neg and HER2pos disease respectively. 15.7% had germline BRCA1/2 mutation. We found 367 somatic mutations in 217 significantly mutated genes (SMG). Most commonly seen mutations: TP53 (26%), PIK3CA (21%), KMT2C (12%), JAK1 (11%). 5% had POLE mutation. 20pts who received neo-adjuvant chemotherapy 7(35%) was RCB0. Differences in PAX3, BRCA2, CHD2 and FGFR4 were observed among pts who did and did not achieve RCB0. CNV analysis is below:

| CNV region | N(%) |
|------------|------|
| 11q13: CDK1,PAK1,FGF19,FGF4 &FGF3 | 7 (22%) |
| 8q24: MYC,REOL4 &RAD21 | 10 (31%) |
| 3p11: FGF1 | 7 (22%) |
| 17q12: ERBB2,GRB7, &IOD12, | 9 (28%) |
| 1q32:MODMIL10 | 7 (22%) |

IMPLICATIONS: Using a novel 1000 gene hybrid-capture technology including SMG, CNV, small indwells we describe a spectrum of aberrations with common features to be expected in a multietnic Middle-Eastern breast cancer cohort. The incidence of TP53 and PIK3CA mutations was similar to those reported for Caucasian women with breast cancer in the cBioportal data sets. Interestingly we observed JAK1 to be the 4th most commonly mutated gene. Compared to cBioportal published breast cancer datasets we observed higher rates of MYC amplification as well as TP53 pathway aberrations. Germline & therapy-induced CNV changes also allude to significant chromosome instability within this cohort. Our preliminary data has demonstrated that in the population there were a) common SNV and CNV changes recognised across the world as being pathogenic, but also b) unique changes on crucial cancer cell growth pathways hinting that there are unique changes associated with patients of non-Caucasian origin that merit further exploration.

Fatma.mubarak. (2019). Prevalence of Anxiety and Depression in Abu Dhabi residents in Year 2019. Family Medicine Department, Mediclinic Al Noor Hospital, Abu Dhabi, UAE.

INTRODUCTION: In recent Medical researchers in UAE, the Mental Health care became one of the most important subject to focus on human health being in UAE.

In past, inattentively the mental health disorder was not addressed properly due to several factors. Despite that, Depression and Anxiety are commonly seen in the general practice; and there is no statistical data reflects the impact of this problem.

The study titled as Prevalence of Anxiety and Depression in Abu Dhabi residents in Year 2019. It’s a Pilot Study that aims to reveal the percentage of depression and anxiety among the general population of Abu Dhabi.

Also; it aims to increase the awareness of mental health issues among the stakeholders to facilitate further management of this global health issue.

METHODS: It is a cross sectional, pilot study with sample size of 176 and the P value is set to be 0.05, CI is 95%. The data tool is self-administered questionnaire focusing on Patient Health Questionnaire 2 and 9, and General Anxiety Disorder 7 scale distributed to visitors attending Mediclinic Hospitals. Data analysis was done by using Statistical Package for Social Science (SPSS).

RESULTS:
- The study showed that 53.98% of Abu Dhabi residents screened were negative for depression while 46.02% were positive.
- 62.50% of Abu Dhabi residents screened and found to have mild anxiety, 31.25% as moderate anxiety and 6.25% had severe anxiety.

CONCLUSION: This study concludes the emerging cases of depression and anxiety among Abu Dhabi residents and requires further wide screening programs to be implemented in order to reduce the mental health related sicknesses and empower the human nature with positive thinking attitude & well-being. Anthropometric measurements and prevalence of obesity related diseases: A cross-sectional study of overweight and obese patients in a novel multi-disciplinary weight management program.

MARIAM ELSABAN, FAISAL NAWAZ, MONA JOUMAA, AMAR HASSAN KHAMIS, USAMA WARSHOW, RAHILA BHATTI

BACKGROUND: According to world health organization (WHO), United Arab Emirates (UAE) has one of the highest prevalence rates of obesity in the Middle East at 33%. There is a paralleled rise in the incidence of related metabolic conditions, particularly type 2 diabetes, metabolic syndrome and non-alcoholic fatty liver disease (NAFLD). Through dietary, pharmaceutical, endoscopic and surgical options, multidisciplinary weight reduction programs offer a comprehensive approach to obesity management.

AIM: Study the prevalence of obesity related diseases in a weight management program and determine the relationship to obesity anthropometric indices.

METHODS: This is a cross-sectional study conducted at Mediclinic Parkview Hospital in Dubai, UAE. 311 patients have been evaluated from January 2019 until September 2019 as part of a multi-disciplinary weight management program. Key demographics, anthropometric, and clinical data was analyzed...
using Statistical Package for Social Sciences (SPSS) software (Version 24). Correlations were assessed by Mann-Whitney test (significance p < 0.05).

RESULTS: 311 patients taking part in the weight management program were studied. The population was constituted of 103 (33%) males and 208 (67%) females. The mean age was 41 years. The population was heterogeneous with 38 nationalities. In relation to associated metabolic diseases, diabetes had the highest prevalence at 20.3% (n=63/310) (3.3% type 1, 50% type 2, 46.7% pre-diabetes). Other comorbidities were dyslipidemia at 31% (n=97/316), hypertension at 20% (n=63/311) & NAFLD at 10% (n=34/328). BMI correlated with waist circumference (r=0.62, p<0.01) and was significantly associated with diabetes, hypertension, and NAFLD.

CONCLUSION: The study has confirmed the high prevalence rates of obesity related diseases in a private hospital setting in a multinational cohort of obese patients. BMI and waist circumference are the most representative measure of obesity in our population and obesity related diseases. Further studies will play a part in assessing the benefit of these measures during weight reduction interventions.

Meta-analysis comparing combined use of Eicosapentaenoic acid and statin to statin alone
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BACKGROUND: Role of omega-3 Fatty acids, especially eicosapentaenoic acid (EPA), in reducing cardiovascular events is not clear. We conducted a meta-analysis including trial sequential analysis (TSA) of all available randomized controlled trials (RCTs) assessing the impact of EPA + statin on cardiovascular risk reduction.

AIM: To appraise cardiovascular risk reduction with EPA and statin taken together. A comprehensive search of PubMed and EMBASE databases was conducted for all RCTs that compared EPA + Statin versus placebo + statins and included outcomes related to cardiovascular health. We calculated a comprehensive odds ratio (ORs) and 95% confidence intervals (CIs) using a random-effects model. We included 5 RCTs totaling 27,415 patients.

RESULTS: Demonstrated that EPA + statin resulted in 18% reduction in the incidence of MACE (OR=0.79; 95% CI: 0.65–0.93, I2 = 54%), P value <0.01 and 30% reduction in myocardial infarction (MI) (OR=0.71; 95% CI: 0.61–0.82, I2 = 0%, P value <0.01), as compared to statin alone. With respect to MACE, the number needed to treat was 49. The statistical significance for reduction in the incidence of MACE with EPA + statin was further augmented with trial sequential analysis. However, combined therapy of EPA + statin demonstrated no significant association on incidence of stroke when compared to statin alone or all-cause mortality.

CONCLUSION: The meta-analysis demonstrated that EPA significantly reduced the incidence of MACE when combined with statin therapy, which is mainly driven by a significant reduction in myocardial infarction.

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Analysis of neonatal screening data of commonly screened newborn disorders in medlinic city hospital, dubai, 2013-2017: a cross-sectional study
Ms Donia Ahmad - College of Medicine, Mohammed Bin Rashid University of Medicine and Health Sciences, Dubai, UAE. Professor Riad Bayoumi - College of Medicine, Mohammed Bin Rashid University of Medicine and Health Sciences, Dubai, UAE. Dr Zahreddin Abusalah - Department of Neonatology, Med clinic City Hospital, Dubai, UAE.

OBJECTIVE: This study aims to address the prevalence of a group of conditions (inborn errors of metabolism, hemoglobinopathies, congenital hypothyroidism, glucose-6-phosphate dehydrogenase deficiency, congenital adrenal hyperplasia, cystic fibrosis) that are part of the newborn screening program in a multi-disciplinary hospital in Dubai, United Arab Emirates.

METHODS: A cross-sectional analysis was performed on newborn screening data in Medlinic City Hospital, Dubai, between October 2012 and December 2014. A total of 6421 newborns were included in this study. The data was analysed for the following variables: gender, gestational age, birth weight, and birth year, as well as the diseases and their different subtypes.

RESULTS: Amino acid profile was detected in 4 newborns with a prevalence of 1:1,605 live births. Congenital hypothyroidism has a prevalence of 1:3,210 live births. The prevalence of cystic fibrosis is 1:6,421 live births. No cases were detected for acylcarnitine profile, congenital adrenal hyperplasia, or bio tinidase deficiency. 1.1% of the newborns were positive for glucose-6-phosphate dehydrogenase deficiency, whereas 1.2% of the newborns were only carriers. 2.15% of the newborns were detected to have some form of hemoglobinopathy.

CONCLUSION: Out of a sample size of 6,421 newborns, a total of 74 positive cases and a total of 222 carrier cases were
recorded. Compared to other studies conducted in the United Arab Emirates and Pakistan, this study showed a higher prevalence rate for carrier hemoglobinopathies but a lower prevalence rate for positive hemoglobinopathies, glucose-6-phosphate dehydrogenase deficiency, congenital hypothyroidism, congenital adrenal hyperplasia, cystic fibrosis, and biotinidase deficiency. The results from this study may have been influenced by the multi-ethnic population in the United Arab Emirates, the small sample size, and societal factors such as consanguinity.

The association between body mass index and the development of gout and hyperuricemia amongst adults in the united arab emirates between january 2018 and december 2018: cross-sectional study

Ms Hess Al Mazrooei - College of Medicine, Mohammed Bin Rashid University of Medicine and Health Sciences, Dubai, UAE. Dr Amel Ginawi - Department of Rheumatology, Mediclinic City Hospital, Dubai, UAE.

OBJECTIVE: The core objective is to explore the association between serum uric acid (SUA) and obesity amongst UAE residents diagnosed with gout in a one-year time frame, from the 1st of January 2018 to the 31st of December 2018.

METHODS: In order to conduct this cross-sectional study, 76 subjects were analysed. Body mass index (BMI) was calculated and used as an obesity marker. The participants were classified into 4 groups according to their BMI by implementing the WHO classifying system. Descriptive analysis was then used to show trends between BMI and SUA levels. Spearman’s Rho test was applied to examine the association between BMI and SUA levels.

RESULTS: There was a total of 60 males (mean age, 45.8 ± 11.8 years) and 16 females (mean age, 40.6 ± 10.8 years) in this study. A positive association between obesity and SUA was determined in the female population, however, the association was statistically insignificant with regards to the male participants. None of the patients were categorized as underweight.

CONCLUSION: It was evident that female SUA levels were positively associated with obesity in both the overweight and obese group. Nonetheless, the association was weak in the male category which could be related to confounding factors that might have influenced SUA levels.

Assessing the value of respiratory pathogen panel on antibiotics prescribing and the length of hospital stay for patients admitted to a tertiary care hospital, Dubai, United Arab Emirates; a cross-sectional study

Ms Maryam Alshamsi - College of Medicine, Mohammed Bin Rashid University of Medicine and Health Sciences, Dubai, UAE. Dr Ali Mekki Elsheikh - Department of Pulmonology and Internal Medicine, Mediclinic City Hospital, Dubai, UAE.

OBJECTIVE: Assess the value of Respiratory Pathogen Panels (RPP) on antibiotic prescribing and length of hospital stay (LOS) for in-patients admitted with a respiratory tract infection in a tertiary-care hospital in Dubai emirate, United Arab Emirates (UAE).

METHODS: Cross-sectional data from 428 in-patients who had received an RPP test at a multispeciality hospital in Dubai (UAE) between 1st of July and 31st of December 2018 were analysed. Sociodemographic variables were age, gender and nationality, and RPP event variables were RPP result and pathogen type. Outcome variables were antibiotic prescribing and LOS. Other variables include quantitative-CRP and final diagnosis.

RESULTS: The value of a positive RPP decreased antibiotic prescribing by 18.3% (294) and LOS by 1.2 days, when compared to the value of a negative RPP. The majority of antibiotic prescribing and increased LOS were seen with older age groups. RPP events of bacterial origin are seen to have the highest impact with 100% antibiotic prescribing. A final diagnosis of LRTI carries 70.5% of antibiotics prescribed and 4.57 LOS (all p-values ≤0.05). Gender and sociodemographic variables were not significantly different between positive and negative RPP.

CONCLUSION: The value of RPP on antibiotic prescribing and LOS were lower with a positive RPP result. Main outcomes were decreased for patients who were younger and had a positive RPP result. The findings may help to inform clinicians and healthcare practitioners on the impact of RPP on antibiotic prescribing and LOS in the UAE.

POSTER ABSTRACTS

EPIDEMIOLOGY OF BREAST CANCER IN DUBAI, UNITED ARAB EMIRATES, 2013-2018: A RETROSPECTIVE CROSS-SECTIONAL STUDY

Ms Farah Awadhalla - College of Medicine, Mohammed Bin Rashid University of Medicine and Health Sciences, Dubai, UAE. Dr Annett Al Hamadi - Department of Oncology, Mediclinic City Hospital, Dubai, UAE.

OBJECTIVE: Investigate the epidemiology of breast cancer in the UAE and determine the onset of breast cancer and the stage of diagnosis in the UAE and compare it to other regional and western countries.

METHODS: This is a retrospective cross-sectional study that was conducted on 112 patients in Mediclinic City Hospital in Dubai, UAE between the time period of 1 January 2018 and 31 December 2018. The data obtained in the study was collected from the patients’ electronic medical records in Mediclinic City Hospital and was then analysed on SPSS. A literature review was then performed on relevant journals and articles to allow for the comparison of the results obtained in the study to results obtained in other regional and western countries.

RESULTS: This study shows that the median age of the diagnosis for breast cancer in the female population in the UAE is 42.5 years. The majority of cases 53.6% (N=60) fell between the ages of 40-49 years old. Stage 1 was diagnosed in 5.4% of the patients, stage 2 in 45.0% of the patients, and stage 3 in 49.6% of the patients.

CONCLUSION: This study showed that the mean age of breast cancer patients in the UAE was lower than other regional and Western countries. It also showed that the majority of breast cancer patients are diagnosed at stage 2 and 3 of the disease. These results show that it is time to call for breast cancer screening at an earlier age.

CREATING AND SUSTAINING A HEALTHY WORKPLACE ENVIRONMENT

Jenny Eastaugh - Deputy Nursing Director, Mediclinic Welcare Hospital, Dubai, UAE.

BACKGROUND: Hospitals today are facing many challenges; from regulatory limitations, aggressive competition, increased patient demands and continual economic restraints. These challenges have required Healthcare facilities to utilize a lean approach in providing quality services efficiently. Redesigning nursing care models, job profiles and transforming work processes are all principal strategies for many healthcare providers.

At Mediclinic Welcare Hospital we studied the direct and indirect cost of working in an unhealthy work environment and
its impact on staff satisfaction, customer satisfaction and business financial performance.

AIM: To prove that by creating a sustainable and healthy workplace environment we could reduce direct and indirect operational costs, increases performance efficiencies and positively impact on customer and employee satisfaction.

METHODS: Over a two year period we used the FOCUS - PDCA methodology to examine current practices, uncover service provision deficiencies and redesign our workforce models.

RESULTS: Over the study period we showed a 25% escalation in staff engagement rates, a 20% increase in customer satisfaction markers and a total of DH 8 million reduction in nursing costs which was a saving of 1.4% against revenue.

CONCLUSION: Creating a healthy work environment is a complex project that can take years of hard work and effort. However, the benefits of such can produce powerful efficiency outcomes that positively impact on financial performances as well as creating a happy and healthy workforce.

ANTIMICROBIAL RESISTANCE PATTERNS OF URINARY PATHOGENS AMONG ADULTS IN THE UNITED ARAB EMIRATES BETWEEN 2012-2018: A CROSS-SECTIONAL STUDY

Ms Maryam Jafari - College of Medicine, Mohammed Bin Rashid University of Medicine and Health Sciences, Dubai, UAE. Dr Guzanfar Choudry - Department of Urology, Mediclinic City Hospital, Dubai, UAE.

OBJECTIVE: To estimate and identify the trends in antimicrobial resistance of urinary tract infectious pathogens at a private hospital in Dubai (United Arab Emirates) between 2012-2018.

METHODS: Retrospective data of patients 18 years and older with a positive urine culture result between 01 January 2012 and 31 December 2018 was obtained from the Microbiology Department of a private hospital in Dubai, United Arab Emirates and analyzed.

Sociodemographic variables were age and gender of patients, and the variables associated with the urine culture results were the positive bacteria and their antibacterial resistance to a panel of commonly used antibiotics. Data were analyzed using the “Statistical Package for the Social Sciences” software version 24. A Chi-square test was employed to measure the association between different variables in this study.

RESULTS: The most common urinary pathogens found were Escherichia coli (80.1%) followed by Klebsiella Pneumoniae (13.4%), Pseudomonas aeruginosa (4%), Proteus mirabilis (1.8%), and Acinetobacter baumannii (0.7%). The highest overall resistance rate observed in Escherichia coli isolates were to Trimethoprim/Sulfamethoxazole (81.5%) and Ciprofloxacin (80.6%) whereas, the highest sensitivity was to Imipenem (34.4%) and Nitrofurantoin (32%). In contrast, Klebsiella Pneumoniae was highly resistant to Nitrofurantoin (37%) and was found to be most sensitive to Ciprofloxacin (7.8%). Resistance was significantly higher amongst males and the elderly (all p<0.05), with an increased resistance to Trimethoprim/Sulfamethoxazole among both groups.

CONCLUSION: This study explored the trend and pattern of antimicrobial resistance in the United Arab Emirates, and found a high resistance rate among urinary pathogenic strains between 2012 and 2018. Resistance was higher among males and the elderly patients. These findings may help to inform clinicians on the proper empiric treatment options for patients, in order to improve their prognosis.

COLORECTAL CANCER SCREENING, THE OPTIMUM AVERAGE WITHDRAWAL TIME TO INCREASE ADENOMA DETECTION RATE IN COLONOSCOPY. COLONOSCOPY WITHDRAWAL: IT TAKES TIME TO DO IT WELL

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INTRODUCTION: Increasing colonoscopy withdrawal time (CWT) has previously been shown to be associated with increasing adenoma detection rate (ADR). For most colonoscopies, the goals are to identify neoplasia and reduce the risk of colorectal cancer. Therefore performing a high-quality colonoscopy is essential indicator for ADR. Evolving data support a relationship involving procedural withdrawal time, adenoma detection, and cancer reduction. A longer withdrawal time, which facilitates more thorough mucosal inspection, has been associated not only with increased adenoma detection but also with a subsequent reduction in colorectal cancer. Withdrawal times in normal colonoscopies in which no biopsies or polypectomies are performed should average ≥6 minutes, but withdrawal time is considered less important than ADR. Current guidelines recommend that colonoscopists detect one or more conventional adenomas in ≥30% of men and ≥20% of women undergoing screening colonoscopy.

AIM: This audit was designed to evaluate compliance with current guidelines on colonoscopy withdrawal times across Mediclinic Parkview Hospital

METHODS: The single Centre retrospective study of colonoscopic procedures undertaken in Mediclinic Parkview Hospital between the ages of 18-101, Male: Female Ratio was 1:1 over a period from September 1st- December 31st 2018 for group (A) and 1/1/2019- 31/12/2019 for group (B).

Patients undergoing colonoscopy with 3 months immediately before (group A) and after (group B) initiation of CWT recording. Colonoscopies were excluded if procedure times were incomplete, missing, or bad bowel preparation.

RESULTS: Average colonoscopy withdrawal time in group A was and the average colonoscopy withdrawal time in group B is 10.13 minutes.

In-group A, We examined 136 (9-13%) average ADR 11% and compared to Group B that were screened 856 patients who underwent colonoscopy. There were 431 patients screened > 6 min and ADR was 20-42% (average 28%) over 12 months compared with in Group A where ADR was 11%.

The average colonoscopy withdrawal time of 10.13 minutes (range, 7.17 – 12.09 minutes) in the screened group. Average withdrawal times were significantly related to the incidence of interval cancers: The risk for ADR was 2.5 times higher at average withdrawal times < 6 minutes than at those ≥6 minutes.

CONCLUSION: In 136 colonoscopy procedures performed, did not adhere to the minimal withdrawal time of 6 min as recommended in the best practice guidelines. If these findings were replicated across the UAE, a significant amount of pathology could be missed, increasing risks to our patients.

CWT recording was associated with a significant increase in polyp detection 28% and this in turn leads subsequent reduction in colorectal cancer by 50% (3 in Group A compared to 6 in group B).

Therefore we recommend that Mediclinic associated hospitals perform Bowel cancer screening programme with recording on CWT > 6 min for performing best quality colonoscopy.
SENSITIVITY AND SPECIFICITY OF MAGNETIC RESONANCE IMAGING COMPARED TO COMPUTERIZED TOMOGRAPHY FOR STROKE IN DUBAI, UNITED ARAB EMIRATES, 2017-2019: A DIAGNOSTIC STUDY

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OBJECTIVE: Evaluate the effectiveness of MRI scans versus CT scans at (i) spotting and assessing acute strokes of varying intensities; and (ii) pinpointing a cut-off limit of stroke intensity at which MRIs should be used as first line rather than CT.

METHODS: An exploratory diagnostic study. Comparing CT and MRI in terms of sensitivity and specificity on different levels of stroke severities in adult patients in Dubai. Participants were admitted between 2017-2019 in two multidisciplinary hospitals. The study was done through visual comparison, breaking down data into categories and carrying out statistical analysis. The images that were compared were taken 6 hours of less apart to ensure the fairest possible comparison.

RESULTS: MRI was proven to be superior at diagnosing and assessing acute strokes and other stroke related events in patients with an NIHSS score lower than 6. MRI also showed a higher sensitivity than CT (78.2% compared to 29.3%). CT scans showed a significant inability of giving a certain diagnosis in numerous cases without an MRI scan for confirmation. CT achieved a specificity of 98% compared to MRI, which was the reference test in this study.

CONCLUSION: The study suggests that if patients have an NIHSS score of lower than 6, then an MRI scan is more suitable as the first line of imaging than CT scan. MRI was also proven to be much better at assessing strokes, ruling out infarction, and diagnosing other pathologies of the brain that may mimic a stroke in symptoms or appearance.

IMPACT OF SINGLE VERSUS BILATERAL INTERNAL THORACIC ARTERY GRAFTING ON THE LONG-TERM SURVIVAL IN ADULTS: A SYSTEMATIC REVIEW

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OBJECTIVE: The study aims to compare the survival rates between patients who had undergone bilateral internal thoracic artery grafting versus those with single internal thoracic artery grafting from the available literature. Moreover, to resolve the conflict by providing an update on which procedure seems to be the safest and provides long term survival rates and reduced mortality rates.

METHODS: A literature search of the databases was conducted to retrieve studies that fall under the study design of cohort and randomized controlled clinical trials in English from January 2015 to September 2019. The main focus of the papers retrieved was to compare the mortality rates of patients that received single internal thoracic artery grafts versus bilateral internal thoracic artery grafts.

RESULTS: The two cohort studies show that the bilateral internal thoracic artery grafting is associated with lower mortality rates and better long-term survival outcomes than single internal thoracic artery grafting. While the ART randomized controlled clinical trials showed that there is no significant difference in mortality rates between both the coronary artery bypass grafting techniques. However, both study designs concluded that bilateral internal thoracic artery grafting is associated with a higher frequency of deep sternal wound infections.

CONCLUSION: More randomized controlled clinical trials need to be conducted regarding this topic to resolve the contradiction and conflict that is seen between these two study designs. As the randomized controlled clinical trials can provide updated data that takes into account the confounding factors which cannot be established nor analysed in cohort studies.

PIGMENTED EPITHELIOD MELANOCYTMATA: A RARE MELANOCYTIC NEOPLASM

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A 12 year old Pakistani girl presented to the dermatology department with a non-healing dark lesion on the right leg that had slowly been growing over the previous 6 months. Apart from atopic dermatitis her medical history was unremarkable.

Examination revealed a 2.5 cm black keratotic nodule on the right shin. A biopsy was performed and histopathology showed a wedge shaped proliferation of large epithelioid melanocytes in the dermis with abundant coarse melanin, focal pagetoid spread and numerous melanophages. The cells were positive for Melan-A, HMB45, P16 and Wilms’ tumour protein and Ki67 showed a low proliferative index. These features were consistent with a diagnosis of pigmented epithelioid melanocytoma. Imaging of the regional lymph nodes did not show any suspicious features. A wide local excision was performed by surgeons and the wound repaired by a rotational flap. A regular follow up at 6 month intervals was decided. Pigmented epithelioid melanocytoma is a very rare melanocytic neoplasm that has features of an atypical epithelioid blue nevus and a low grade animal-type melanoma. It can present at any age and has the potential to spread to regional lymph nodes, less commonly cause distant metastases and rarely death. Overall the malignant potential compared to melanoma is considered favourable. Wide local excision and surveillance of regional lymph nodes is recommended but the role of routine sentinel lymph node biopsy is controversial.

UNIVERSAL ULTRASONOGRAPHY SCREENING PROGRAM OF NEWBORN’S HIPS – SINGLE CENTER PILOT STUDY

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BACKGROUND: Developmental dysplasia of the hip (DDH) is the most common musculoskeletal deformity in infant age. The outcome of undiagnosed or late diagnosed DDH is disastrous in many ways. In the second half of 20th century the efforts were made to diagnose DDH as early as possible. Method for ultrasonography (US) of infant hips was developing constantly since late 1970s,
thanks to the efforts of Prof Reinhard Graf, and became very accurate. Universal US screening of newborns was introduced in many developed countries resulting in a dramatic fall in the rate of operative treatment and complications. But in UAE the universal ultrasonography is not recognized as a mandatory test.

AIMS: To present the obstacles and benefits of universal hips US screening in the Maternity ward of Mediclinic Al Jowhara hospital (MJOW). To analyze the DDH incidence in all MJOW newborns and with respect to risk factors and clinical presentation. To raise the social awareness of the DDH and importance of US screening.

METHODS: Prospective study is ongoing for all newborns in MJOW starting on 12th of December 2019. The ward is provided with the custom made Informed Consent form and Assessment form that are attached to the file. The forms are approved by the Mediclinic Ethics Committee. Pediatrician are explaining to the mothers the importance of hips US screening and are providing the signature. Pediatricians are making the clinical assessment, fulfilling the Risk factors part in the Assessment form and refer baby for hips US.

Orthopedic surgeon is performing clinical examination and hips US – Graf method, before the discharge in the Maternity ward and inform the parents if any further follow-up or treatment is needed. Adequate US documentation is stored:

- Images are labeled with the patient identification, examination date, and side (right or left) of the anatomic site imaged.
- Graf type is defined and recorded.
- Final data analysis:
- Incidence of different types of DDH in correlation with the risk factors
- Sensitivity of clinical examination.

RESULTS: In last 3 weeks 33 newborns were delivered in MJOW. One baby boy with adduction hips contracture and postural calcaneus deformity of both feet was diagnosed with both hips Type IIC - severely deficient started Pavlik harnesses treatment. One baby boy with unremarkable clinical finding was diagnosed with right hip Type Ic and Pavlik harnesses applied. He had no risk factors for DDH.

Two baby girls have Type IIa+ on both sides, and for them double nappies and US after one month are advised. The study is still ongoing and until the Medical research day number of babies is assumed to triple. Then there will be more accurate data topics for discussion.

There are several technical obstacles for the smooth process in the Maternity ward, before the discharge:

- Shifting the US machine from the OPD to the Maternity ward is time consuming and in conflict with other doctors needs.
- The Informed Consent forms are not signed and mothers are not fully informed on time.
- There is no sufficient nurses’ support for the preparation of babies.
- Orthopedic surgeon is off duty or busy and parents are anxious to leave earlier.

CONCLUSION: The US is harmless and very efficient method for early diagnosis of DDH, only when done by skilled professionals. Universal US is not increasing the costs of DDH diagnosis in infant age, but reduces dramatically the costs of late diagnostics and treatment. The motto “Prevention is better than operation” holds true.

Bigger sample is needed for proper assessment of the DDH incidence and role of risk factors, but this pilot study is just a first step in the right direction.

After this pilot study and proper orientation of the relevant professionals in other Mediclinic hospitals, next step could be to do neonatal universal hips US throughout the UAE facilities and come out with much bigger number of data to help our patients better.

The US screening program performed in the Maternity ward is a step forward to the newborns. To bring the US machine in the ward is a good idea for the following reasons: mothers find it baby friendly, all newborns are examined and the message is sent that MJOW cares about the babies hips. But, with the present taskforces it doesn’t go very smoothly and fine adjustments are needed.

Universal US is not increasing the costs of DDH diagnosis in infant age, but reduces dramatically the costs of late diagnostics and treatment. The motto “Prevention is better than operation” holds true.

HEPATIC SUPER SCAN – ON FDG PET-CT SCAN
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Hepatic super scan in an uncommon finding on FDG PET-CT scan. Liver is a common site for metastasis from multiple primary malignancies. Here we present two FDG PET-CT scans demonstrating appearances of hepatic ‘super scan’. Both patients presented with Rectal malignancy and metastases in the Liver at the time of diagnosis. They underwent FDG PET-CT scans for distant staging. Imaging was performed 60 minutes after intravenous administration of FDG according to the protocol. Both scans demonstrated intense FDG avidity at the known primary rectal malignancy as well as extensive and intense FDG avidity in the Liver, significantly more than the background as well as uptake in the brain. Hepatic super scan may be seen with very high metabolic state of the tumour cells as well as extensive metastasis.

SURGICAL CHALLENGES WITH MANAGEMENT OF GIANT CERVICAL FIBROID-A CASE REPORT
Dr. Rimpi Datta - OBS/GYN, Mediclinic Al Noor Hospital, Abu Dhabi, UAE.

OBJECTIVE: Reporting a case of huge cervical fibroid which is unique due to its rarity, location, size and rapid growth. The purpose is to discuss the challenges during the surgery with an optimum management and minimal morbidity.

METHODS: Case report with literature review

A 35 year old single, nulliparous female presented with recent worsening of her dysmenorrhea since the last 3 months and felt bloating with some hard swelling in her abdomen since 2 months. A large abdominal mass of around 30 weeks gravid uterus size, arising from the pelvis was noted. It was firm in consistency with restricted mobility. MRI pelvis confirmed the diagnosis of huge cervical fibroid of 19 x 14 x 15 cm. Decision of abdominal hysterectomy with sparing of the bilateral ovaries was taken owing to the size and location of the fibroid and patient’s lack of desire for future fertility.

A low transverse incision was done considering the better healing and reduced post-operative morbidity. This posed a
challenge during the surgery due to the fibroid’s irregular shape, lateral extension, large size and reduced accessibility.

A stepwise approach was taken and the uterus was first removed supracervically above the mass. The cervical fibroid was of 20x19x15 cm which was enucleated and removed and weighed 1295gm. Intraoperative cystogram and cystoscopy was performed to rule out bladder and ureteric injuries. Patient recovered well postoperatively.

DISCUSSION: Uterine fibroids, also known as leiomyomas are benign smooth muscle tumors of the uterus. The incidence of these tumors are around 20-25%. Most of the fibroids are limited to the body of the uterus but only 1-2% arises from the cervix.

Cervical fibroids can present with urinary retention, dysmenorrhea, menorrhagia, mass coming out from vagina, foul smelling vaginal discharge or lump in abdomen with pressure symptoms. Cervical fibroids pose enormous surgical difficulty by virtue of their relative inaccessibility and proximity to bladder anteriorly, rectum posteriorly and ureters laterally. The larger ones also leads to distortion of the normal anatomical relationships of uterus, bladder and uterine vessels thus increasing the risk of injury to these structures. Proper preoperative imaging and planning is the key to success.

CONCLUSION: Cervical fibroids are a rarity compared to fibroids located in other parts of the uterus and poses many challenges during surgical management. Preoperative detailed imaging, knowledge of distorted pelvic anatomy and multidisciplinary approach is the key to successful outcome and reducing patient morbidity.

PREVENTION OF PERIPHERAL INTRAVENOUS COMPLICATIONS: A DIAMOND RULE OF VASCULAR HEALTH PROMOTION PROGRAM (VHPP)  
Saira Khimani - Unit Manager, Mediclinic Al Noor Hospital, Abu Dhabi, UAE.

BACKGROUND: Placement of an intravenous (IV) catheter for administration of parenteral therapy is one of the most common invasive procedures performed in hospitals. In US it is believed to account for one third of all nosocomial bacteremia. As per center of disease control infusion therapy is a major cause of morbidity. In patients with peripheral intravenous catheters, 3 types of complications occur frequently: (1) phlebitis, (2) catheter-related infection, and (3) obstruction of the catheter. In this study, one of the hospital initiative related to vascular health promotion program is presented.

OBJECTIVE: To determine the role of vascular health promotion program “a diamond rule” in prevention of peripheral IV complications in adult medical patients.

METHOD: Research method used in this study was a retrospective, interventional design using an interrupted time series to compare catheter related complications for all patients with peripheral IV lines admitted in our adult medical ward from Jan 2019 till October 2019. Total of 240 cannula sites were observed before application of VHPP. The findings were shared with the unit heads in a quarterly meeting,” Diamond Rule” (5) Strategies were discussed. First, development of “Right Line Decision Tool” which helped the nurses and physician to prescribe appropriate selection of catheter according to the therapy required. Second, formulating a vascular access team, consist of senior RNs from each unit, anesthesia technicians and physicians. Third, a unit based staff training done for the new protocol. Fourth, routine site assessment.

OUTCOME: Pre intervention (Jan 2019-Apr 2019), IV sites were observed by the team leaders as their daily patient rounds. Out of 240 sites observed, 10 sites were found to have different types of complications 1 patient had severe thrombophlebitis, 2 patients had infiltration and 7 patient had erythema and tenderness. These patients were mostly with IV cannula for more than 2 days, patients on IV infusion of irritant fluids and antibiotics.

Post intervention, (May 2019- Oct 2019) In a period of six months 300 random cannula sites were observed and it was observed that, 1 patient was reported to get stage 1 phlebitis and 13 episodes of erythema around the cannula site.

CONCLUSION: Vascular health promotion program, a diamond rule of strategies contributed a vital role in prevention of catheter related complications. In order to further improve the outcome and patient satisfaction, it is mandatory to extend the scope of peripheral catheters to ultrasound guided catheterization for long and complicated therapies.

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IMPACT OF MODIFIED EARLY WARNING SCORE (MEWS) AND EARLY MEDICAL INTERVENTION BY RAPID RESPONSE TEAM (RRT) ON PRE ICU CARDIAC ARREST.

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BACKGROUND: The nearly warning score (EWS) is a simple physiological scoring system suitable for bedside application. A modified EWS has the ability to identify medical patients who are at risk for catastrophic deterioration. (Kruger, 2001) Rapid response teams (RRTs), also known as a medical emergency teams or medical response teams, were developed to promote rapid assessment and treatment of patients whose clinical condition was deteriorating but who were not yet in shock or cardiac arrest. (Lee, 1995). In 2008, RRTs became part of hospital accreditation by The Joint Commission. (JCI,2008) Hospital introduced concept of rapid response team in December 2018. This response team was activated by the bedside nurse or doctor according to predefined criteria using early warning scoring system.

OBJECTIVE: Our goal was to determine the impact of early warning score (EWS) and rapid response team (RRT) in reducing the incidence of cardiac arrest prior to ICU transfer.
METHODS: A nonrandomized, population-based study included inpatient admissions in 2018 and 2019 (Jan till Nov). Inclusion criteria was to include cases in which medical intervention was done by rapid response team, cardiac arrest cases outside the critical care areas and number of patients transferred to ICU.

Main outcome measures were incidence of cardiac arrest outside ICU. During the period of this study, the team covered 6 patient-care-units. If a patient meets one of the criteria, the primary responsible nurse is expected to perform interventions as per the EWS policy and call the RRT simultaneously with the resident on duty so that the care decisions are made safe and informed and with the help of multidisciplinary team.

OUTCOME: Our measure of study, the incidence of cardiac arrest in non ICU/critical care area.

In year 2018 (Jan till Nov), there were 6 cases out of 25 cardiac arrests cases happened outside ICU (24%). However in year 2019 (Jan till Nov), there were 4 cases out of 34 cardiac arrests cases in the hospital announced in non ICU setting (11%).

After adjustment for case mix the intervention was associated with a 13% reduction in the incidence of unexpected cardiac arrest.

CONCLUSION: Graphical presentation of the analysis;

Training and educating the primary care nurses about the role of RRT in patients with reportable early warning scores, facilitated decrease in code blues/ cardiac arrests outside critical care areas. The introduction of RRT as best practice in this hospital benefited the population at large which evidently led in a reduction in mortality and morbidity rates. They may even pave the way for a modest lessening of the overall cost of care.

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IMAGE GUIDED BRACHYTHERAPY (IGBT) IN LOCAL-LEY ADVANCED CERVICAL CANCER: NEW SCOPE OF SERVICE AT MCCH

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The standard of care for locally advanced cervical cancer is external beam radiotherapy (EBRT) with concurrent chemotherapy followed by brachytherapy (BT) [1]. BT is a crucial component and has been shown to be an essential independent treatment factor associated with improved pelvic control [2] and overall survival [2,3]. In most institutions worldwide, BT is based on orthogonal X-rays for treatment planning with standard treatment plans irrespective of tumor stage, size, response to EBRT, or the topographic position of organs at risk (OAR).

Over the past 15 years, image guided brachytherapy (IGBT) with magnetic resonance imaging (MRI) or computed tomography (CT) guidance has been an emerging subject. IGBT allows for individualization of treatment with dose adaptation, and dose escalation when appropriate, to take into account tumor size at diagnosis, and at the time of BT, while simultaneously sparing OAR [4,5].

Mono-institutional reports from some pioneering institutions have shown 3-year local control rates ranging from 85% to 97%, with limited or reduced toxicity [6–15]. These figures compare favorably with historical series using conventional BT [16–21], but the patient numbers were relatively small (40–225 patients).

We at Mediclinic City Hospital started this new scope of service on March 2018 and so far 15 patients were treated or in process. We were the first center in the UAE to introduce this new scope of service following the GEC ESTRO Brachytherapy group recommendations.

So far we have treated 15 patients over the last 20 months. Regarding the results it is too early to report survival rates. Local control will assessed just before the poster is due to be presented.

CONCLUSION: The management of locally advanced cervical cancer (LACC) is definitive EBRT±concurrent chemotherapy followed by Image guided brachytherapy (IGBT) IGBT for (LACC) allows dose escalation to the high-risk clinical target volume (HRCTV) while sparing organs at risk (OAR). This has been demonstrated in RetroEMBRACE, a multicenter cohort study from twelve centers and 731 patients treated, IGBT combined with radio-chemotherapy leads to excellent LC (91%), PC (87%), OS (74%), CSS (79%) with limited severe morbidity. These results provide a benchmark for advanced clinical practice and future clinical trials in locally advanced cervical cancer

This is the first publication of a large multi-institutional patient cohort treated with EBRT±concomitant chemotherapy and MRI or CT-based IGBT. The excellent LC of 91% at 3 years and 89% at
5 years confirms the results from mono-institutional reports [6–15].

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THE SEVERITY, PREVALENCE, AND ASSOCIATED FACTORS WITH DRY EYE DISEASE IN DUBAI, UNITED ARAB EMIRATES, 2019: A CROSS-SECTIONAL STUDY
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OBJECTIVE: To describe the epidemiology, prevalence, and severity of dry eyes in Dubai, United Arab Emirates in 2019. Association of dry eyes with possible factors such as gender, contact lenses, screen time, exposure to smoking, history of eye surgery/injury, and age will be tested.

METHODS: This is an analytical cross-sectional survey-based study. An online survey was emailed to Mohammed Bin Rashid University students, staff, and faculty, and Mediclinic City and Parkview hospitals’ staff in Dubai, United Arab Emirates between April and June 2019. The survey includes the Ocular Surface Disease Index (OSDI) which is a standardized questionnaire, and demographic questions which allow finding the prevalence of dry eyes, severity, and testing associated factors.

RESULTS: A total of 452 participants completed the survey with approximately two thirds being females (288/452) (63.7%). The prevalence of dry eyes in Dubai is estimated to be (62.6%) (283/452) with severe dry eyes being the most prevalent among affected individuals (119/283) (42.0%). Females, high screen time (>6 hours), and use of contact lenses were found to be associated with dry eyes (P-value < 0.05). Exposure to smoking/shisha, history of eye injury/surgery, and age were not associated with dry eyes.
CONCLUSION: This is the first cross-sectional study to assess the prevalence of dry eyes in Dubai (62.6%). The severity of dry eyes from most common to least common was severe, mild, and moderate dry eyes. Severe dry eyes are more common in females and those who wear contact lenses.

BEDSIDE HANDBOVER: IMPROVING PATIENT SATISFACTION AND SAFETY
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BACKGROUND: Nurse-to-nurse bedside handover is very useful to maintain the communication chain between incoming and outgoing nurses. It allows both shift nurses to visualize the patient and ask questions if needed. It encourages patient to involve in their daily care plans and actively participate in hospital protocols about patient safety and rehabilitation (Baker, 2010).

OBJECTIVE: The goal of this project was to implement bedside handover in all in-patient departments to improve patient satisfaction and decrease incident reports.

METHODS: To identify the strengths, weaknesses, opportunities, and threats of bedside handover, a SWOT analysis of the inpatient units in the Mediclinic Al Ain Hospital was completed. A Quality Improvement (QI) method further used to attain the project’s goal and objectives. This methodology included effective communication; the development of change competence, and creation of an environment supporting patient-family centred care. The project was started with the identification of the QI team.

Thereafter the project was introduced and the significance of the problem and literature review was discussed with the nursing management and other stakeholders. In-service sessions were conducted, which consisted of a video, role play and interactive sessions. (Manchester et al., 2014)

Lewin’s (1947) change theory served as framework to implement bedside handover. A pilot was started in medical unit to identify potential barriers and driving forces to facilitate the implementation process. In redesigned process incoming and outgoing nurses were required to go in patients’ room for handover using SBAR communication tool and ask patient for any question or query.

RESULTS: The audit tool contained five main areas and 25 criteria (Addendum A). Targets were not reached over one month, for seven, of the criteria and further improvement was needed. These criteria included: patients and relatives encouraged to participate in the handover process; asked the patient to verbalize full name; discharge planning; were patients asked if they had any questions, was the patient or family asked to clarify information, was conversation about hourly rounds initiated, did any nursing staff stay in the station during the handover process. An action plan still needs to be initiated to address the gaps. No physicians or patients mentioned that there was no nurse available during handover time.

CONCLUSION: Incorporating bedside handover in our daily routine improved communication between incoming and outgoing shifts and helped to better serve the patients. Bedside handover is one of the best activities to promote a patient-centred approach to nursing care and many benefits for both staff and patients were uncovered during implementation of this initiative. Patients are encouraged to participate in their own care and nurses are helped to prioritise their work and gain a better understanding of their patients.

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PRIMARY CESAREAN SECTION AUDIT AS PART OF QUALITY IMPROVEMENT PROJECT Dr. Siddiqua Banu Sayeda, Specialist, Obstetrician and Gynaecologist, DGO, DNB, MRCOG. Mediclinic Middle East, MMUS Abudhabi. Dr. Raoya Farah Consultant, Obstetrician and Gynaecologist, MRCOG, CCT. Mediclinic Middle East, MNOO Abudhabi

BACKGROUND: Cesarean delivery has become a commonly used measure for delivery of the fetus (1). In the recent years incidence of Cesarean section (CS) has increased dramatically . It is called Primary Cesarean section when it is performed for the first time on a pregnant woman (2). Primary caesarean section (PCS) rate is one of the main indicators of quality of care, therefore lower rates reflect more appropriate clinical practice.

The World Health Organization suggests it lies between 10 and 15 percent, while a more recent study found it is a little higher, around 19 percent. North America and Western Europe are well above this optimal rate, with 32 percent (4) and 27 percent of babies delivered by cesarean section respectively. In the UK one in 4 pregnant women has a chance of section a Cesarean averaging a rate of 25% (5) The prevalence of the overall Cesarean section in UAE is 33% (6)

AIM:
1. To Reduce Primary Cesarean section rate and this can lead to a reduction in overall cesarean rate.
2. To reach Full ward KPI as per international standards.
3. To Encourage Vaginal birth after cesarean section (VBAC) and monitor outcomes and percentages.
4. To Disseminate learning and feedback to improve practice.
5. To ascertain Cesarean section Indication Validity

METHODS
• Data are collected weekly retrospectively from maternity log book
• Primary audit - 05th of July-26th of September 2019 all primary caserean section
• Comparative audit-27th September to 20th December 2019 after feedback to look at the change

RESULTS
Primary Audit: 05th of July-26th of September 2019
• Total Delivery rate 142 in the above period
• 75 cesarean sections rate 52.8%
• 26 primary cesarean section 18.3%

Comparative audit: 27th September to 20th December 2019
• Total Delivery rate 153 in the above period
• 74 cesarean sections rate 48.3%
• 32 primary cesarean section 20.9%
RECOMMENDATION AND DISCUSSION

The most common indications for primary cesarean delivery include labor dystocia, abnormal or indeterminate fetal heart rate tracing, fetal malpresentation, multiple gestation, and suspected fetal macrosomia, IUGR with Doppler changes.

- Primary Cesarean sections rate is variable, majority of indications appropriate and MedClinic Khalifa branch (MNOO) is nearly in par with the international standard.
- Continue to collect data and present for learning to clinicians audit findings quarterly in perinatal meetings
- To review every three month 10-12 notes for primary cesarean section and discuss with involved clinicians to give feedback if cesarean section is inappropriate.
- Encourage VBAC in 1 previous cesarean section to reduce overall cesarean section rate

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WHICH CORONARY FLOW ASSESSMENT METHODS PROVIDE THE MOST PRACTICAL AND RELIABLE ASSESSMENT OF CORONARY ARTERY STENOSIS SEVERITY? A LITERATURE REVIEW

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OBJECTIVE: The objective of this study is to review recent literature regarding coronary flow assessment methods, providing a focus on how newer methods compare to Fractional Flow Reserve (FFR).

METHODS: A literature search (PubMed) of studies comparing different coronary flow assessment methods was produced in accordance with the Preferred Reporting Items for Systematic reviews and Meta-Analyses (PRISMA) guidelines and limited to clinical trials or prospective studies published between 2016 and 2019 (August).

RESULTS: Eight studies satisfied the eligibility criteria and were included in this review. These demonstrated good diagnostic accuracy of all coronary flow assessment methods (83.2%; 84.3%; and 92.7% for iFR, Pd/Pa and QFR, respectively), and good correlation with FFR (0.77; 0.84; and 0.86 for iFR, Pd/Pa and QFR, respectively). Hybrid approaches (iFR-FFR) also had a good diagnostic accuracy; 95%).

CONCLUSION: This study shows a strong correlation between adenosine-free coronary flow assessment methods and FFR; and these indices also have good diagnostic performance. Therefore, these methods can be safely and effectively used to guide percutaneous coronary intervention. Hybrid methods are also effective and are a suitable alternative for those who wish to rely on FFR. Adding QFR to simple angiography can also increase diagnostic accuracy, and reliably estimate FFR, whilst being a rapid assessment method.

HEMOPHAGOCYTIC LYMPHOHISTIOCYTOSIS: NOT SO UNCOMMON IN ICU

Vinod Jaiswal

AIM: To bring awareness and highlight importance of early diagnosis and prompt treatment of Hemophagocytic lymphohistiocytosis (HLH) in the ICU.

BACKGROUND: HLH is an uncommon, often unrecognized, aggressive life threatening syndrome of excessive immune activation that presents with nonspecific findings. The mortality rate is as high as 50% even after appropriate treatment. It affects all age groups, predominantly infants. The common etiologies are malignancy, autoimmune disorders or viral infections.

CASE DESCRIPTION: A 43-year old female with diabetes mellitus and hypertension, was admitted with severe DKA and sepsis. She developed high grade fever, sudden, unexplained pancytopenia, massive hemostaseopenomalagia, hemodynamic instability, multiorgan failure including fulminant hepatic failure. Her workup revealed high ferritin, hypertriglyceridemia, hypofibrinogenemia and scattered histiocytes with phagocytosed lymphocytes on bone marrow biopsy. Diagnosed with HLH, patient received pulse Methylprednisolone, broad spectrum antibiotics and responded dramatically. She later received Etoposide to achieve better suppression of hyper-immune response. Patient made full recovery and was discharged after one and a half month of hospital stay. Our patient met six of eight diagnostic criteria for HLH. Moreover, the resolution of symptoms and normalization of labs with the steroids, antibiotic therapy supported our diagnosis.

CONCLUSION: Early recognition and appropriate timely treatment with rapid recovery was the hallmark of our case. It also highlights the unusual presentation of HLH secondary to sepsis. Given the high mortality rate and non specific presentation, high index of suspicion is required to diagnose HLH in the ICU setting.

CARDIAC SCREENING TO MITIGATE THE RISK OF SUDDEN CARDIAC DEATH IN MIDDLE EASTERN AND AFRICAN COMPETITIVE ATHLETES. A LITERATURE REVIEW

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OBJECTIVE: The study aims to review the literature regarding abnormalities predisposing to Sudden Cardiac Death (SCD) in young Middle Eastern and African competitive athletes between the years 2009-2019 and aims to assess cardiac pre-participation screening methods.
METHODS: A PubMed search was performed in accordance with the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines. The search targeted articles that reported the prevalence of cardiac abnormalities found in Middle Eastern and African athletes, and it also focused on comparing cardiac screening methods for assessment of athletes.

RESULTS: Four studies fell within the inclusion criteria and were included in the study. Results identified a shortage in the literature regarding prevalence rates of SCD in the Middle East and Africa. Additionally, there seems to be a lack of ethnicity-specific cardiac pre-participation screening programs in the region. Nevertheless, the prevalence of SCD-related abnormalities (HCM, ARVC, etc.) ranged from 0.47-4.29%. Included studies conveyed only male athletes with no reports on the female athletic population.

CONCLUSION: The present study highlights a need to develop an efficient cardiac pre-participation screening program specific to Arab and African athletes due to their high false-positive rates in contrast to Caucasian athletes. Significant evidence proves that an adequate cardiac screening program can prevent SCD in young competitive athletes. Therefore, it is imperative that future studies highlight the prevalence of abnormalities directly related to SCD in order to create a valid screening program that can be implemented in the region to mitigate the risk of shocking events.