Accessing the Pattern Prescribed for Pregnant Women for Both in and outpatient in Obstetrics and Gynecology Department

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ABSTRACT

A Prospective cross-sectional examination was completed so as to survey the solution design in pregnant ladies. Going to Antenatal in and Outpatient Department of a Tertiary Care Hospital. A cross-sectional investigation was led by looking into the antenatal consideration In & outpatient office case papers of 230 irregular pregnant ladies. The remedy design was surveyed and the medications were arranged dependent on the US FDA Risk Classification. Out of 230 solutions, just 177 remedies had medicates other than iron, folic corrosive and calcium lactate. In this examination the majority of the medications endorsed falls under class B (26.6%), a reasonable number of medications falls under classification A (16.60%) and C (16.60%) and a couple of medications fall under classification D (6.66%). No medications having a place with class X were recommended. The current examination uncovers that the medication use during pregnancy in and around Bapatla area was insignificant and the majority of the medications were recommended by their conventional names. Recommending by nonexclusive name is known to decrease the expense of medication treatment, defended drug treatment and maintains a strategic distance from disarray.

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INTRODUCTION

Pregnancy is an uncommon physiological state where medicine admission presents a test and a worry because of changed medication pharmacokinetics and medication crossing the placenta, potentially making hurt the baby (Miah et al., 2017). Medicine therapy in pregnancy can't be completely dodged since some pregnant ladies may have persistent obsessive conditions that require nonstop or interfered with treatment (e.g., asthma, epilepsy and hypertension). Likewise, during pregnancy, new ailments can create and the old one can intensify (e.g., headache, migraine, hyperacidity, sickness, heaving) requiring drug treatment. Notwithstanding, prior to taking any medication (counting over-the-counter medications) or dietary enhancements (counting restorative spices), a pregnant lady ought to counsel her medical care professional. A medical services specialist may suggest that a lady take certain nutrients and minerals during pregnancy. Med-
clinical care experts likewise consider the advantages to the mother and the danger to the embryo while recommending drugs during pregnancy (Sharma and Sharma, 2017).

It is preposterous to expect to maintain a strategic distance from drugs during pregnancy, so ladies with certain persistent ailments, for example, epilepsy, diabetes, incendiary entail illness and asthma, the utilization of medications is fundamental and advantages for mother and kid may well exceed the teratogenic danger of the medication (Bajaj and Tipnis, 2003). Other nonchronic sicknesses related or inconsequential to the pregnancy may require clinical therapy. The medications endorsed to pregnant moms for remedial purposes may cause genuine auxiliary and practical unfriendly impacts in creating younger.

Diminishing prescription mistakes and improving patient security are the significant regions of conversation. It is basic to think about a few components before the remedy of medications during pregnancy. For example, Portion and span of medication presentation are significant. The bigger the portion is almost certain the impacts. The more extended the term of medication introduction is the more noteworthy possibility of powerless times of organogenesis and formative issue (Joshi et al., 2012).

Timing of introduction is essential. Certain organ frameworks may have just restricted time of powerlessness for harm. The pathogenetic system, teratogen creates heir unfavourable impact by explicit component (Bakker et al., 2006).

Host helplessness, fluctuation in the hereditary components identified with a system of specific medications. Everything medications can influence the soundness of the mother and embryo; along these lines, any medications ought to be controlled with care during pregnancy (Rohra et al., 2008).

The FDA, in 1979 built up an ordered framework which gatherings drugs under classification A, B, C, D and X, as indicated by the level of their expected danger of fetal teratogenicity during pregnancy. US-FDA Pregnancy Risk Factor Categories (Gawde, 2013). The USA Food and Drug Administration (FDA) Arrange those medications for utilize done pregnancy utilizing 5-letters framework.

A = sufficient controlled investigations over pregnant ladies fizzle with exhibit a danger to those embryos. Not many pills need aid seen in this classification (Reddy et al., 2011).

B = “Best” no hazard seen clinched alongside animals, yet all the no controlled trials over pregnant ladies.

C = “Caution” “Adverse fetal impacts Previously, animals, no controlled trials for people. ” the vast majority medications would class c’s.

D = “Danger” “Evidence from claiming mankind’s fetal hazard ought to be saved for life-undermining ailment”. X = solid proof of fetal abnormality, no restorative evidence for pregnancy (Mohammed et al., 2013). Teratogenic Drugs: “Most teratogenic FDA-approved.

Medications are in categories D or X, some drugs in C. Prescribers should look at the US-FDA risk categories when prescribing to pregnancy.

Prescribing patterns
A Prescription is an instruction from a prescriber to a dispenser (Agarwal et al., 2014). Prescription by An specialist might make taken as a reflection about the physician’s state of mind of the sickness and the part of drug clinched alongside its medication. Prescription composing will be An science Also an art. Likewise, it conveys message starting with the prescriber of the tolerant. The prescriber is not always a doctor but also can be a paramedical worker. Prescribing is expected to be judicious, appropriate, safe, effective and economical. The dispenser is not always a pharmacist but can be a pharmacy technician, an assistant or a nurse (Sivasakthi et al., 2011).

Prescribing patterns are one of the currently powerful exploratory tools to ascertain the role of drugs in society. Prescribing practices area Wellbeing professional’s abilities will determinate around those different decisions for medications and figure out the ones that will make the greater part profits the tolerant. Prescribing designs need on be assessed occasionally to expand those restorative efficacious, decline unfriendly impacts also gatherings give reaction should be prescriber. Those examine about prescribing example may be a and only a therapeutic review and looks for should monitor, assess and assuming that necessary, propose adjustment On prescribing polishes should make medicinal forethought normal and cost Effective (Okoro and Nwambu, 2012).

The medicines are prescribed by means of Essential Drug List [EDL]. Essential medicines are those that satisfy the priority health care needs of the population. Revolving Drug Fund List 2015 was used as the Essential Drug List. A Crucial apparatus for such worth of effort may be a target will measure medication regardless of utilization did wellbeing offices that will describe drug utilization designs and prescribing behaviour “drug use indicator. The WHO,
in collaboration with International Network for the Rational Use of Drugs (INRUD) has formulated these set of core drug use indicators. The core prescribing indicators measure the performance of prescribers, the patient care indicators measure what patients experience at health facilities, and the facility indicators measure whether the health personnel can function effectively (Shrestha and Bhandari, 2013).

**Types of indicators were used include**

An average number of drugs per encounter. Percentage of drugs prescribed by generic name. Percentage of encounters with an antibiotic prescribed. Percentage of encounters with iron preparations prescribed. Percentage of drugs prescribed from an essential drugs list or formulary (Puranik et al., 2012). The indicators of prescribing practices measure the performance of health care providers in several key dimensions related to the appropriate use of drugs. The present study was undertaken to evaluate the drug prescription patterns in pregnant women patients attending the outpatient and inpatient department and to generate at the extent of rational/irrational prescribing in this institute (Ravi et al., 2002).

**MATERIALS AND METHODS**

**Study Location**

A study was carried out in,

1. All the pregnant women presence obstetrics & gynecology department above 18 years.
2. Patients prescribed by at least one medicine.
3. Pregnant women who are enthusiastic about contributing to the study.
4. Pregnant women with co-m.
5. orbidity conditions *Exclusion criteria.*
6. Lactating mothers.
7. Patients with partial data.
8. Pregnant women who are not eager to participate in the study.
9. Patients are suffering from diseases like AIDS, Liver problems and kidney problems.

**RESULTS**

An entire of 230 pregnant out-patients and inpatients remained engaged in the study. No of the patients attending the hospital. Among 230 patients attending hospital 52 among them are inpatients and 178 among them are outpatients.

Table 1, Agdistis circulation of Patients. Out from claiming 230 patients prompted in the study, the lion’s share for patients (12.17%) belonged of the age class from claiming 23 a considerable length of time.

| Patients details | No of patients | Percentage (%) |
|------------------|----------------|----------------|
| In patients      | 52             | 22.60          |
| Outpatients      | 178            | 77.39          |
| Total            | 230            | 100            |

The period appropriation will be demonstrated in Table 2.

Table 2: Ratio of pregnant women in %

| Age in years | Number of Pregnant women | Percentage (%) |
|--------------|---------------------------|----------------|
| 18           | 12                        | 5.23           |
| 19           | 14                        | 6.02           |
| 20           | 20                        | 8.61           |
| 21           | 14                        | 6.08           |
| 22           | 15                        | 6.52           |
| 23           | 28                        | 12.17          |
| 24           | 12                        | 5.21           |
| 25           | 16                        | 6.95           |
| 26           | 13                        | 5.65           |
| 27           | 6                         | 2.60           |
| 28           | 7                         | 3.04           |
| 29           | 9                         | 3.91           |
| 30           | 8                         | 3.47           |
| 31           | 5                         | 2.17           |
| 32           | 6                         | 2.60           |
| 33           | 8                         | 3.47           |
| 34           | 7                         | 3.04           |
| 35           | 5                         | 2.17           |
| 36           | 10                        | 4.34           |
| 36           | 6                         | 2.60           |
| 38           | 5                         | 2.17           |
| 39           | 4                         | 1.73           |
| Total        | 230                       | 100            |

Trimester circulation for patients: Crazy from claiming 230 patients included in the contemplate dominant part about patients (15.21%) belonged will 3 trimesters (8 months from claiming gestation). Trimester appropriation will be demonstrated in Table 3.
Table 3: Month-wise %

| Months | No of pregnant women | Percentage (%) |
|--------|----------------------|----------------|
| 1      | 10                   | 4.34           |
| 1.5    | 9                    | 3.91           |
| 2      | 15                   | 6.52           |
| 3      | 14                   | 6.02           |
| 4      | 30                   | 13.0           |
| 5      | 22                   | 9.56           |
| 6      | 28                   | 12.17          |
| 7      | 23                   | 10.0           |
| 7.5    | 4                    | 1.72           |
| 8      | 35                   | 15.21          |
| 8.5    | 32                   | 13.91          |
| 9      | 8                    | 3.47           |
| Total  | 230                  | 100            |

Crazy from claiming 230 patients included in the dominant study part of patients (46.52%) have a place with the second trimester. Trimester conveyance is demonstrated for Table 4. (Bhingare, 2014)

Gravida states of Patients. Out of 230 patients incorporated in the study, the dominant part of the patients (54.78%) has a place with multi gravid. That gravid condition will be demonstrated in Table 5.

Table 4: Trimester wise %

| Trimester | No of pregnant women | Percentage (%) |
|-----------|----------------------|----------------|
| 1st       | 48                   | 20.8           |
| 2nd       | 107                  | 46.52          |
| 3rd       | 75                   | 32.60          |
| Total     | 230                  | 100            |

Table 6: Prescribed Drugs in the Study

| Drugs              | No of pregnant women | Percentage (%) |
|--------------------|----------------------|----------------|
| Iron & folic acid  | 85                   | 36.96          |
| capsules           |                      |                |
| Calcium tablets    | 92                   | 40.0           |
| I. v fluids        | 53                   | 23.04          |

Table 6, pills endorsed over & crazy patients department: Out about 230 patients included in the study, downright numbers for medications endorsed are "around them 5 pills are over A- category, 8 medications in B- category, 5 medications On C- classification And 2 pills On d and no pills in X class. Pills endorsed for out-patients in pregnant ladies are demonstrated to the table underneath (Dhar and Komaram, 2017).

Commonly Prescribed Drugs in the Study

Ordinarily endorsed pills in the contemplate were most folic corrosive emulated By iron capsule, calcium tablet, i. V liquids. Ordinarily endorsed medications in the consider need aid indicated in Table 6. Discourse. Right finding of a sickness Also its administration with drugs constitute essential viewpoints of tolerant care, which may be additional critical in the event for pregnant ladies. The effects of claiming display study are dependent upon information gotten starting with. 230 patients. Present study average percentage of drugs arranged per prescription was 4.5% among 230 prescriptions. The rational use of drug demands use of a minimum number of drugs not only to reduce cost but also to minimize drug-drug interactions and adverse drug reactions. In this study, 48% of medications Were endorsed by nonexclusive names (Jayasheela et al., 2015).

Prescribing indicators

The prescribing indicators were computed to every last one of the patients will focus the contrasts in the prescription. Normal amount from claiming solution for every prescription Table 6 enlists the down-right amount from claiming drugs were endorsed to 230 patients. Rate of drugs endorsed; eventually, Tom’s perusing nonspecific sake indicated that just for drugs were endorsed by nonexclusive name. Medications endorsed, as stated by Us-Fda classification (Rahiman et al., 2015). Those aggregate medications endorsed around 64.20% of pills belong on classification an around 27.30% pills go under classification b, and more or less 6.82% pills fall under class c and around 9.85% medications are under classification d.
tion of monetary assets. Also, to fulfill the human services needs of the dominant part from claiming number safety. In this contemplate parenterals were endorsed for inpatients throughout and then afterwards c-segment and the parenterals were not endorsed to outpatients. Prescribing rate of Antibiotics might have been 22.06%. Antibiotics are endorsed for pregnancy, bringing about significant pharmacoepidemiology logic confirmation in regards to those affiliations of prenatal anti-microbial purposes of presentation And conception defects. And therefore, a precaution has to be taken while prescribing antibiotics during pregnancy. US FDA has categorized drugs used in pregnancy as follows based on their effects on fetus Classification A- regulated human investigations indicate no dangers class B- no proof about the danger to people. Classification C- danger can’t be ruled out class D- sure proof about the danger. Class X- Contraindicated over pregnancy. In this investigation the vast majority of the medications endorsed falls under class B (26.6%), a reasonable amount for pills falls under classification An (16.60%) Also c’s (16.60%) Also a couple of medications tumbles under classification d (6.66%). No medications having a place should include classification X were endorsed. Generally, the interactions are encountered more in patients who receive polypharmacy. In this study, as the average percentage of drugs in each prescription were originated to be only 4.5, and most of them are supplements, so the possibility for major drug-drug interactions is insignificant.

**CONCLUSION**

A prescription based survey is considered to be one of the most active approaches to assess drug utilization of the medication. It is also important to consider the recommendations of FDA drugs on pregnancy that helps to improve prescribing patterns of the prescriber and ultimately the clinical standards. Continuous supervision is required through such kind of systematic audit that provides feedback from the physicians and helps to promote the rational use of drugs and antenatal care. Those exhibits ponder uncovers that the pill use throughout pregnancy for Also around Bapatla district were insignificant and most of the medications were endorsed toward their nonexclusive names. Prescribing by nonexclusive name will be referred to decrease the expense from claiming medication regardless of treatment, rationalized medication treatment and abstains from disarray. Our investigation uncovered that prescribing examples of the medical practitioners clinched alongside Also around Bapatla district might have been careful for pregnant ladies over antenatal forethought. We presume Toward determinedly recommending that those propensities for prescribing medications by nonspecific names ought further bolstering make inculcated Around All the more medical practitioners. Familiarity with low cosset prescribing hones if be initiated “around prescribers Since an expansive number from claiming patients going by the doctor’s facilities need aid starting with poor socio budgetary experiences. A further expense bookkeeping examine ought a chance to be embraced will figure out whether those expense for everyday may be moderate of the patients.

**Conflict of Interest**

The authors declare that they have no conflict of interest for this study.

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**REFERENCES**

Agarwal, M., *et al.* 2014. prescribing pattern of drugs in the department of obstetrics and gynaecology in expecting mothers in Jazan region, Ksa. *Int J Pharm Pharm Sci*, 6(1):658–661.

Bajaj, A., Tipnis, H. P. 2003. Clinical Pharmacy. page 651. Career Publication.

Bakker, M. K., *et al.* 2006. Maternal medicine: Drug prescription patterns before, during and after pregnancy for chronic, occasional and pregnancy-related drugs in the Netherlands. *BJOG: An International Journal of Obstetrics & Gynaecology*, 113(5):559–568.

Bhingare, P. E. 2014. The prescription pattern in gynecology-a retrospective study in a South Indian Teaching Hospital. *drugs*, 3:7–9.

Dhar, M., Komaram, R. B. 2017. Assessment of drug utilization pattern and teratogenicity risk among pregnant women attending a tertiary care hospital, Andhra Pradesh. *Int J Pharm Sci Res*, 8(12):5291–5297.

Gawde, S. 2013. Drug Prescription Pattern in Pregnant Women Attending Antenatal Out Patient Department of a Tertiary Care Hospital. *British Journal of Pharmaceutical Research*, 3(1):1–12.

Jayasheela, M., *et al.* 2015. Drug utilization pattern in pregnant women in a tertiary care hospital. *Telangana. Journal of Chemical and Pharmaceutical Research*, 7(7):184–188.

Joshi, H., *et al.* 2012. Drug use pattern during pregnancy: A prospective study at a tertiary care teach-
ing hospital. *NHL Journal of Medical Sciences*, 1(1):14–17.

Miah, M. M., et al. 2017. A Study of Prescribing Pattern of Drugs during Pregnancy and Lactation in the Secondary and Tertiary Care Hospitals of Bangladesh: A Cross Sectional Study. *American Journal of Pharmacology and Toxicology*, 12(4):68–78.

Mohammed, M. A., et al. 2013. Medications use among pregnant women in Ethiopia: a cross-sectional study. *Journal of Applied Pharmaceutical Science*, 3(4):116.

Okoro, R. N., Nwambu, J. O. 2012. Evaluation of physicians’ prescribing patterns of antimalarial drugs during pregnancy at the obstetrics and gynaecology department of a teaching hospital in Maiduguri. *Int J Pharm Biomed Sci*, 3(2):39–46.

Puranik, S. B., et al. 2012. Safe drugs during pregnancy and lactation. *International Journal of pharmacology and therapeutics*, 2(1):1–53.

Rahiman, F., et al. 2015. Prescription pattern analysis during pregnancy in a tertiary care teaching hospital. *International Journal of Pharmacology*, 5:212–217.

Ravi, P. S., et al. 2002. Prescribing patterns in medical outpatients. *International journal of clinical practice*, 56(7):549–551.

Reddy, B. S., et al. 2011. Assessing the pattern of drug use among pregnant women and evaluating the impact of counselling on medication adherence among them. *Int Res J Pharm*, 2:148–153.

Rohra, D. K., et al. 2008. Drug-prescribing patterns during pregnancy in the tertiary care hospitals of Pakistan: a cross sectional study. *BMC Pregnancy and Childbirth*, 1(8):24.

Sharma, H. L., Sharma, K. K. 2017. Principles of Pharmacology. page 995. Paras Medical Publisher.

Shrestha, P., Bhandari, S. K. 2013. The pattern of drug prescribing during pregnancy in nepalese women. *Int J Pharm*, 3(4):680–688.

Sivasakthi, R., et al. 2011. Assessment of pregnancy prescriptions in an ante-natal clinic. *Der Pharmacia Lettre*, 3(3):306–310.