



A Study On Evaluation of Drug Utilization Pattern in Gynecology Department

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ABSTRACT

Prescription is one of the most important transaction between the physician and patient. Drug utilization studies are an important tool to estimate disease prevalence, appropriateness of prescriptions and adherence to evidence-based medicine. Drug utilization studies. Rational use of drugs should follow the RIGHT and SANE principles. The main objective of the study is to understand the concept of Drug Utilization during pregnancy and to understand the process for implementing and performing DUE. Also, to examine patterns and factors associated with medications used in pregnancy. Drug utilization plays a major role in implementing health care professional programs. And it can reduce the irrational prescribing patterns. We conducted a single centered observational analysis of adults of pregnant women who are above 18 years prescribed at Lalitha Super Specialties Hospital, Kothapet, Guntur. Drug utilization during pregnancy is to examine the factors associated with use of medications during pregnancy and improving rational usage of drugs and reducing irrational prescribing patterns. A Total of 71 Patients were enrolled in the present study during the study period. A larger proportion of drugs are prescribed during their 3rd trimesters i.e. 46.99% followed by 2nd and 1st trimesters. The results show that major classes of drugs that are prescribed during pregnancy are vitamins 26%, Antibiotic 16% and followed by other classes of drugs. This study concludes that rational usage of drugs in gynecological department is essential for the safe and effective therapeutic outcomes. The patient has followed the rational drug use which leads to safe and institutional delivery without any complications.

Keywords: Pregnancy, Drug utilization evaluation, prescription, SANE, Rational Use

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INTRODUCTION

A Drug Utilization (DU) study is an on-going, authorized and systemic quality improvement process. WHO in 1977 defines Drug Utilization as “The marketing, distribution, prescription, and use of drug in a society with special emphasis on resulting medical, social and economic consequences”.⁽¹⁾ These studies are designed to review drug use and prescribing patterns of drug with current recommendations or guidelines for the treatment of certain disease. The assessment of drug utilization is important for clinical, educational and economic purposes. Prescribing patterns need to be evaluated periodically to increase the therapeutic efficacy, decrease adverse effects and provide feedback to prescribers.

The principal aim of this drug utilization research is to facilitate appropriate use of drugs as per WHO guidelines in patient populations, minimize the adverse event and drug interactions leading to better patient outcome.

Pregnancy is a time of profound physiological changes in a women’s body which challenges the clinicians in managing the disease states and selection of medications best suited to treat them.⁽²⁾ Maternal drug use during pregnancy may pose teratogenic risk to the foetus, but to avoid all drugs during early pregnancy is unrealistic and may be dangerous also.^(3,4) Careful considerations of the benefit to the mother and the risk to the foetus is required while prescribing drugs during pregnancy.

Irrational use of drugs is a huge worldwide problem and extra care should be taken especially in pregnancy, for example unnecessary drugs are sometimes prescribed like multivitamins in large quantities for patient without nutritional problems⁽⁵⁾ or antibiotics, for patients without evidence of bacterial illness.⁽⁶⁾ Drugs may pass from the mother to the foetus at risk especially during the first and early part of the second trimester. The foetus matures very quickly during the fifth week after conception when organogenesis occurs. During this phase susceptibility to outside influence including harmful effects increases which may not be evident immediately after birth.

It becomes essential to assess the drug utilization pattern in pregnancy for scope of improvement in the current prescribing practices⁽⁷⁾.

Self- medication, medical advice from layperson or suggestions by pharmacist related to treatment of various ailments is prevalent in developing countries. In pregnant women, such an unsafe practice may lead to detrimental effects on the foetus⁽⁸⁾.

MATERIAL AND METHOD

Study design:

The study was conducted at Lalitha Super Specialties hospital, Kothapeta, Guntur for a period of 6 months. We recorded clinical data of all pregnant women prescribed during their trimesters and evaluated.

Study criteria:**Inclusive criteria:**

- All Pregnant women both in patients and out patients in gynecology department.
- All pregnant women who are willing to participate in the study.

Exclusive criteria:

- Non pregnant women
- Patients who are not willing to participate in the study

Ethical considerations: Ethical committee approval was taken before initiation of the study

Protocol Number: NIPS/03/2018

Study method:

Patient medication details were obtained from patients case sheets and required data is entered in data collection forms. The data was categorized based on various parameters like age, co-morbidities, and utilization of drugs during their trimesters. A total of 71 patients were enrolled and their clinical data were collected and evaluated based on usage of drugs during their trimesters.

RESULTS AND DISCUSSION

Table-1 Drugs Prescribed During Trimesters

Trimesters Vs Total Number of Drugs Used In Trimesters

S.no	Trimesters	Total number of drugs used in trimesters	Percentage
1.	Trimester-1	145	19.30
2.	Trimester-2	188	31.02
3.	Trimester-3	301	49.66
	TOTAL	606	100

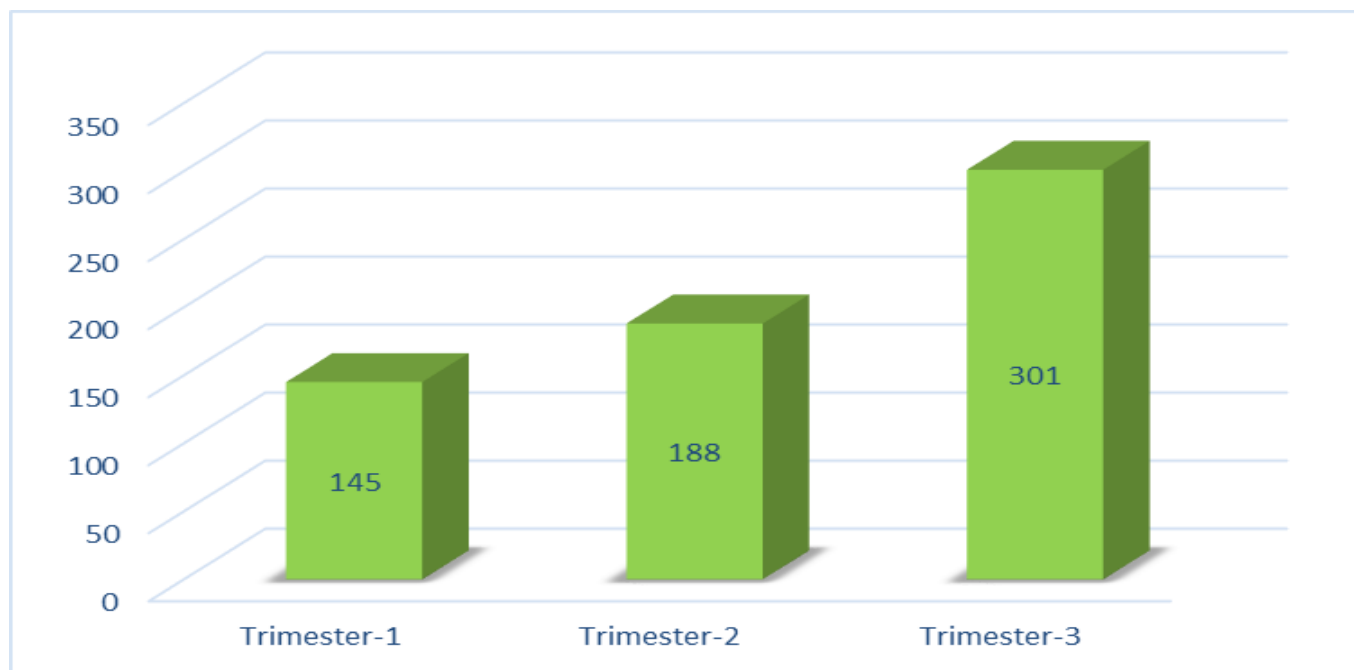


Figure 1: Bar diagram showing drugs used in the study population

OTHER CLASSES OF DRUGS

Table - 2 Other Classes of Drugs Vs Percentage

S.no	Classification of drugs	Number of drugs	Percentage
1.	Antibiotics	8	16%
2.	Vitamins	13	26%
3.	Antipyretics	1	2%
4.	Antiplatelet	1	2%
5.	Steroid progesterone	2	4%
6.	Corticosteroids	1	2%
7.	Proton pump inhibitors	2	4%
8.	Laxatives	3	6%
9.	Antidiabetics	2	4%
10.	Thyroid	1	2%
11.	Anticoagulants	1	2%
12.	Antihypertensive	1	2%
13.	Bronchospasm	1	2%
14.	NSAIDS	1	2%
15.	Expectorants	1	2%
16.	Prokinetic drugs	1	2%
17.	Antihistamine	2	4%
18.	Others	8	16%

In the study population the Other classes of drugs prescribed during pregnancy are 26% of vitamins, 16% of antibiotics followed by other classes of drugs

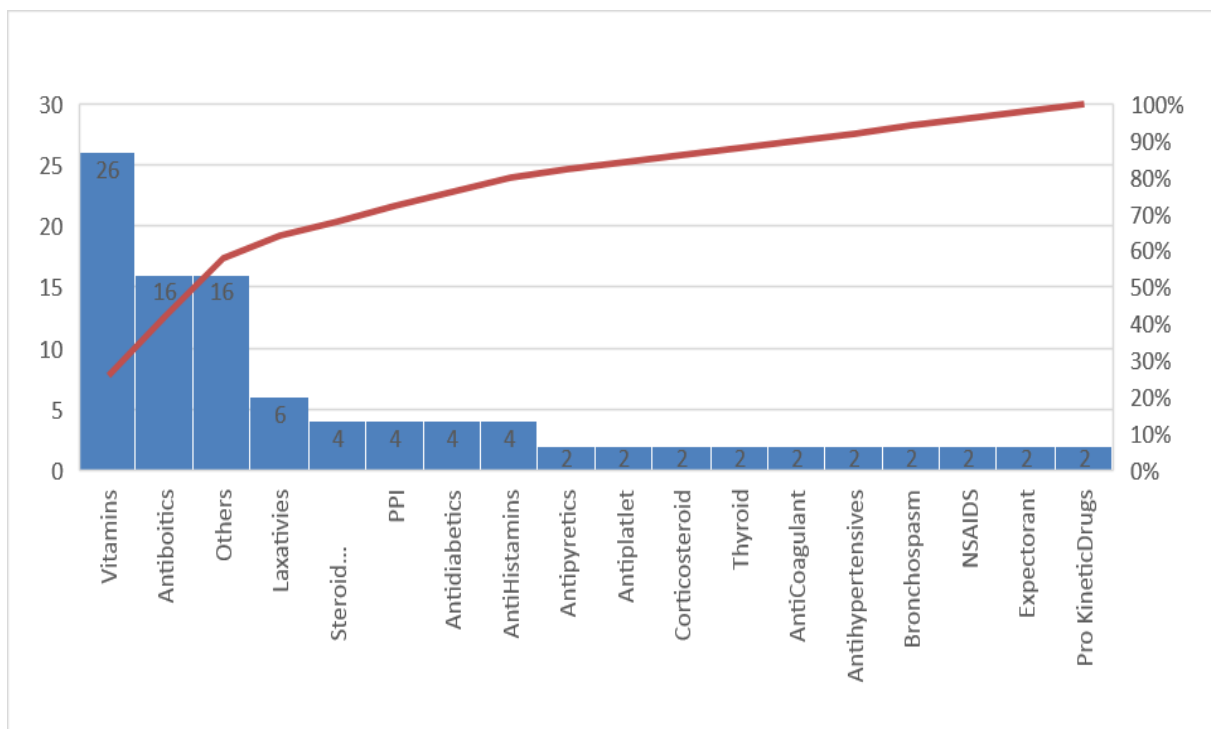


Figure-2 Bar diagram depicting the Other classes of drugs that are prescribed during pregnancy in the study population.

A Total of 71 Patients were enrolled in the present study who met the study's criteria were selected to participate, based on information from medical record at Lalitha super specialties hospital, Kothapeta, Guntur. Out of this most of the patients, about 36.61% were from 23-30 years' age group.

The co-morbidities of study population shows that 1.40% were having diabetic, 2.81% were having epileptic, 1.40% were hypothyroid, 1.40% were anaemic.

The drugs prescribed during pregnancy in the study population shows that most of the drugs are prescribed during 3rd trimester i.e 49.66% followed by 2nd trimester i.e 31.02% and 1st trimester i.e 19.30%.Figure 1

The assessment of drug utilization pattern during pregnancy were found to be 26% of vitamins, 16% of antibiotics were mostly prescribed. Figure 2

In the study population the results shows that pregnancy category of drugs A are 22%, B are 34%, C are 26%, D are 41%, and others are of 14%.

CONCLUSION

This study concludes that rational usage of drugs in gynecology department is essential for the safe and effective therapeutic outcomes. The patients has followed the prescribed medications during their trimesters which leads to therapeutic efficacy and safe institutional delivery.

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