



EVALUATION OF DRUG USE PATTERN IN GYNECOLOGY DEPARTMENT USING WHO PRESCRIBING INDICATORS

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ABSTRACT

To promote rational drug use, it is important to assess drug use pattern. The aim of this study was to evaluate the drug use patterns at the gynecology department. A prospective observational study was conducted over 6 months. The study sample size was 100 patients. The study concludes that patients aged between 35-50years (69%) are highly affected by gynecological diseases and abnormal uterine bleeding (38%) is the most common cause. Vitamin and mineral supplements are the highly prescribed drugs. The average number of drugs prescribed per encounter was 3.7. The percentage of encounters in which an antibiotic or injection was prescribed was 63% and 48% respectively. The Percentage of drugs prescribed by generic name and from an essential drug list was 83.8% and 78.4% respectively. On the finding of this study, the prescribing practices for drugs used in gynaecology department shows deviation from the standard recommended by the World Health Organization.

KEY WORDS: Prescribing Pattern, Gynecology, Rational Drug Use, Drug Use Pattern.



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INTRODUCTION

Irrational prescribing is a global problem. Bad prescribing habits lead to ineffective and unsafe treatment, exacerbation or prolongation of illness, distress and harm to the patient, and higher costs [1]. The rational use of drugs requires that “patients receive medications appropriate to their clinical needs, in doses that meet their own individual requirements for an adequate period of time, at the lowest cost to them and their community” [2]. Assessment of drug use patterns with the WHO drug use indicators are becoming increasingly necessary to promote rational drug use in developing countries [3,4]. Gynecology normally means treating women who aren't pregnant.

MATERIALS AND METHODS

The entire study was carried out for a period of 6 months in 300 bedded tertiary care, Employee State Insurance Corporation Hospital located At Chennai, from November 2014 to April 2015. The proposed study was designed as given below:

PHASE I: (NOV 2014)

1. Selection of study objectives, site and department/hospital.
2. Obtaining consent from the hospital authority.
3. Designing a standard data entry format and other formats required for studies.
4. Literature review

PHASE II: (DEC2014-APR2015)

5. Data collection

PHASE III: (APR-2015)

6. Data collection continued
7. Data analysis
8. Submission of reports

Inclusion and Exclusion criteria for data collection

Inclusion criteria

- Patients getting admitted to the gynecology department.
- Patients of age below 60 years.

Exclusion criteria

- Patients who were not willing to participate.
- Patients terminally ill were excluded from the study.

Prescribing indicators

The WHO prescribing indicators were used in this study. The indicators were pretested, and slight modification was made so that they could be used easily to provide accurate data. The final versions of the pretested indicators are described below.

The prescribing indicators that were measured included

1. The average number of drugs prescribed per encounter was calculated to measure the degree of polypharmacy. It was calculated by dividing the total number of different drug products prescribed by the number of encounters surveyed. Combinations of drugs prescribed for one health problem were counted as one.
2. Percentage of drugs prescribed by generic name are calculated to measure the tendency of prescribing by generic name. It was calculated by dividing the number of drugs prescribed by generic name by total number of drugs prescribed, multiplied by 100.
3. Percentage of encounters in which an antibiotic was prescribed was calculated to measure the overall use of commonly overused and costly forms of drug therapy. It was calculated by dividing the number of patient encounters in which an antibiotic was prescribed by the total number of encounters surveyed, multiplied by 100.
4. Percentage of encounters with an injection prescribed was calculated to measure the overall level use of commonly overused and costly forms of drug therapy. It was calculated by dividing the number of patient encounters in which an injection was prescribed by the total number of encounters surveyed, multiplied by 100.
5. Percentage of drugs prescribed from an essential drug list (EDL) was calculated to measure the degree to which practices conform to a national drug policy as indicated in the national drug list of India. Percentage is calculated by dividing the number of products which are prescribed in the essential drug list by the total number of drugs prescribed, multiplied by 100.

RESULTS AND DISCUSSION

AGE DISTRIBUTION

The total number of patients included in the study from the study site based on their inclusion/exclusion criteria was found to be 100.

In which the patient age group less than 35years were 17% (17), 35-50years were 69% (69) and above 50years were 14% (14). The results indicated that the patients aged between 35-50years were commonly getting affected by gynecological diseases.

Table 1
AGE DISTRIBUTION OF STUDY POPULATION

Age group % (n)	Overall n=100
< 35years	17% (17)
35-50years	69% (69)
>50years	14% (14)

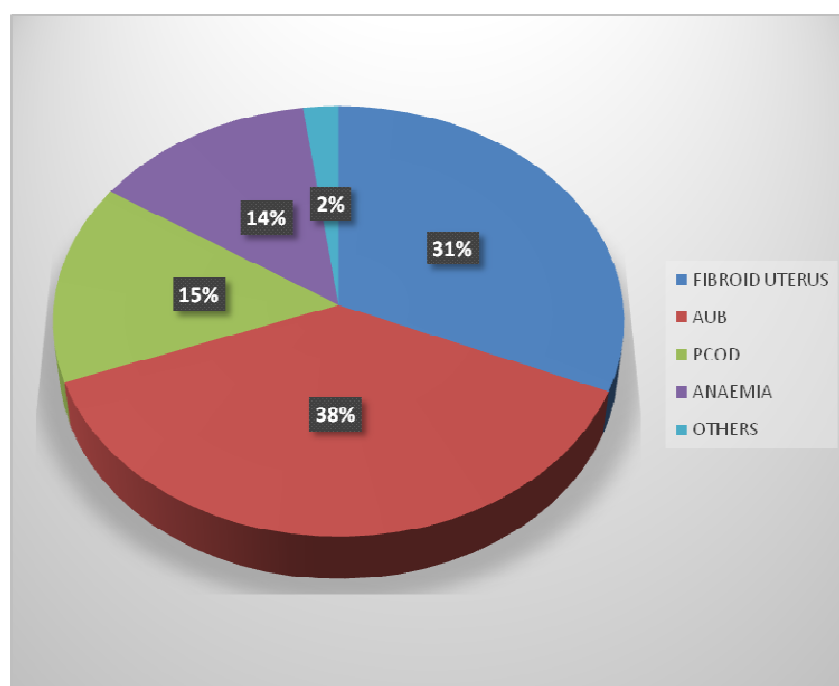
DIAGNOSIS IN THE STUDY POPULATION

The patient in the study site was thoroughly screened. The results revealed that patients diagnosed to have fibroid uterus 31 % (44), AUB 38% (53), PCOD 15% (21), anemia 14% (19) and other disease 2% (3). The results indicated that abnormal uterine bleeding is more frequent in the population.

Table 2
DIAGNOSIS THE STUDY POPULATION

S.NO	DIAGNOSIS IN STUDY POPULATION	PATIENT (n=100)
1.	FIBROID UTERUS	31% (44)
2.	ABNORMAL UTERINE BLEEDING	38% (53)
3.	POLYCYSTIC OVARY DISEASE	15% (21)
4.	ANAEMIA	14% (19)
5.	OTHERS	2% (3)

Figure 1
DIAGNOSIS IN THE STUDY POPULATION



FREQUENCY OF DRUGS PRESCRIBED

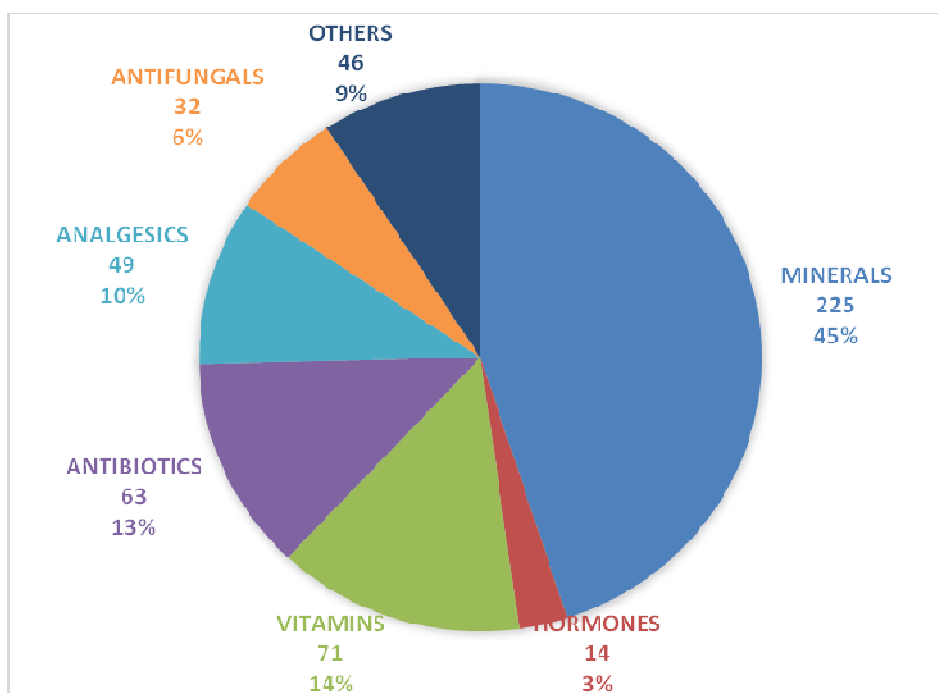
The drugs prescribed in the study population were found to be clinically appropriate as per individual disease guidelines. The most commonly prescribed drugs in gynecology

department were minerals 45% (225), followed by vitamins 14% (71), antibiotics 13% (63) and analgesics 10%(49). The results indicated that mineral and vitamin supplements are the highly prescribed drugs due to deficiency.

Table 3
FREQUENCY OF DRUGS PRESCRIBED

S.NO	DRUGS PRESCRIBED	PATIENT (n=100)
1.	MINERALS	45% (225)
2.	HORMONES	3% (14)
3.	VITAMINS	14% (71)
4.	ANTIBIOTICS	13% (63)
5.	ANALGESICS	10% (49)
6.	ANTIFUNGALS	6% (32)
7.	OTHERS	9% (46)

Figure II
FREQUENCY OF DRUGS PRESCRIBED



EVALUATION OF DRUG USE PATTERN OF STUDY POPULATION USING WHO PRESCRIBING INDICATORS

The average number of drugs per encounter was found to be 3.7, more than the standard derived value. Percentage of encounter with

antibiotics and injection is also high 63% and 48% respectively. The percentage of drugs by generic and the essential drug list is not 100%. The results indicated that the prescribing pattern of health care providers in the study site was not rational.

Table 4
EVALUATION OF DRUG USE PATTERN OF STUDY POPULATION
USING WHO PRESCRIBING INDICATORS

PRESCRIBING INDICATORS ASSESSED	TOTAL DRUGS	AVERAGE	STANDARD DERIVED BY WHO
AVERAGE NUMBER OF DRUGS PER ENCOUNTER	370	3.7	1.6-1.8
PERCENTAGE OF ENCOUNTER WITH ANTIBIOTICS	63	63%	20.0-26.8%
PERCENTAGE OF ENCOUNTERS WITH INJECTION	48	48%	13.4%-24.1%
PERCENTAGE OF DRUGS BY GENERIC	419	83.8%	100%
PERCENTAGE OF DRUGS FROM ESSENTIAL DRUG LIST	392	78.4%	100%

CONCLUSION

Findings from this study indicates that, the prescribing practices for drugs used in gynaecology department in the hospital shows deviation from the standards recommended by WHO. Number of drugs per encounter, antibiotics and injections are overused and should be regulated. Generic prescribing and prescribing from EDL were not found to be a major problem in this study. Physicians are required to pay more attention while prescribing drugs involved in long term therapy such as antibiotics, hormones etc. Patients on long term drug therapy should undergo proper counselling and regular monitoring regarding

the use of drugs. Health care professionals should promote rational drug use to decrease patient burden on costly forms of drugs and for effective treatment.

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CONFLICT OF INTREST

Conflict of interest declared none.

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