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Original Article

# Assessment of Cost per Prescription in the Department of Obstetrics and Gynaecology

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ABSTRACT

According to the World Health Organization (WHO), rational use refers to receiving the medication, in the proper dose, time, and provided to community at the lowest cost. Economic issues have a growing importance in the health care field as the sector share of the gross national product as risen. Cost, in simple words means the total of all expenses. Direct means the cost of drugs, diagnosis/monitoring, personnel and transportation whereas indirect cost means that the loss of productivity costs . Cost analysis can be an important element in setting level of user fees which is affordable to a common man which helps to calculate the cost of treatment and decrease the economic issues .So the study is done to analyze the prescription average cost and the result is found as Among 163 patients 25 gynecological and 53 obstetrics prescription having cost < 1000Rs, 36 gynecological and 32 obstetrics prescription having cost 1001-2000Rs, 7 gynecological and 6 obstetrics prescription having cost 2001-3000Rs, 3 gynecological and 1 obstetrics prescription having cost more than 3000Rs.

**Keywords**: obstetrics and gynecology, Cost analysis, Prescription cost.

## 1. INTRODUCTION

According to the World Health Organization (WHO), rational use refers to receiving the proper medication, in the correct dose, time, and at the lowest cost to patients (Shiva 2014) .Health is related with various economic issue which effect any patients to health care delivery system. Prescription cost analysis is an important element to calculate the burden of treatment or expenses on health which make an economic issue. Pharmacotherapy during pregnancy may cause arisk to the mother and her unborn baby. The teratogenesis of some medicines cause physiologic changes which affect in pregnancy so it's a great concern to clinicians and other health professionals involved in the treatment of pregnant women (Oshikoya

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2012). The term teratogen is known as hazard assessment on a particular agent which indicates that the drug has the capacity under certain exposure conditions to produce abnormal development in an embryo or fetus (Nand 2005). Mostly, therapeutic treatment is avoided in pregnancy, unless it's necessary, because most drugs are harmful to the fetus. That's why the use of medicines in pregnancy is important to make safe treatment for both mother and her unborn child (Oshikoya 2012).There are many studies around the world reported increased useof prescribed and over the counter medicines during pregnancy, but still there is little information on the use of medicine during labor and lactation (Eze 2007).Economic issues have a growing importance in everyone life with prescription burden. Cost in simple words means the total of all expenses. Prescription cost analysis means the total cost of drugs which is prescribed by physician, dispensed by pharmacist, and taken by patients (Vyas 2011). Prescription cost analysis is an important element of patients which is affordable or inexpensive to common patients and decreases their economic burden.

**Objective:** To calculate the average cost per prescription in in-patients.

## 2. MATERIALS AND METHODLOGY

This Observational study was conducted in Basaveshwara Medical College & Hospital, Chitradurga in the Department of Obstetrics And Gynecology, for a period of six months.This study was approved by the "Institutional Human Ethical Committee" of the S.J.M College of Pharmacy, Chitradurga. (SJMCP/IEC/543F/2014-2015 Date– 13/10/2014).The study includes hospital in-patients treated in OB&G department. Patient who meets the following criteria will be enrolled.

**Inclusion Criteria:** Pregnancy & Lactating patients, Patients with Gynecological disorder.

**Exclusion Criteria:** Female patients from other departments. Other charge and cost than prescription.

The data was entered in Microsoft Excel-2013 version and the results are analyzed using Statistical Package for Social Services (SPSS 19.0). Descriptive Methods was applied to obtain the frequency, Chi square test was applied to determine any significant difference between quantitative variables. Sources of data include Patient's prescriptions, Medical records of In-patients, Interviews with patient and/or care givers.

## 3. RESULTS

### 1. Distribution of patients according to age:

The total patients were categorized in age groups and patients in each group were recorded. Out of 163 patients 71 patients were Gynaecological and 92 Obstetrics patients. 2 patients in gynaecology and 15 patients were below 20 years of age, 11 patients were gynaecology and 69 patients were obstetrics belong from 21-30 years of age, 23 patients were recorded gynaecology and 7 patients obstetrics from 31-40 years of age, 31 in gynaecology belong from 41-50 years of age, 4 patients were gynaecology and 1 obstetrics patients belong more than 50 years of age. graphically represented in Figure 1.

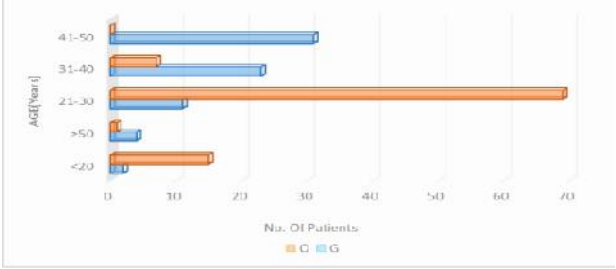



**Fig 1: Distribution of Patients according to Age.**

**2. Distribution of patients based on their Occupation:** Among the study 60 gynecology and 69 obstetrics patients having less than 10000 monthly income,6 gynecology and 18 obstetrics patients having 10001-20000 monthly income, 3 gynecology and 1 obstetrics patients having 20001-30000 monthly income, 1 gynecology and 1 obstetrics patients having more than 30000 monthly income. The results are shown in Table 5 and graphically represented in Figure 2.

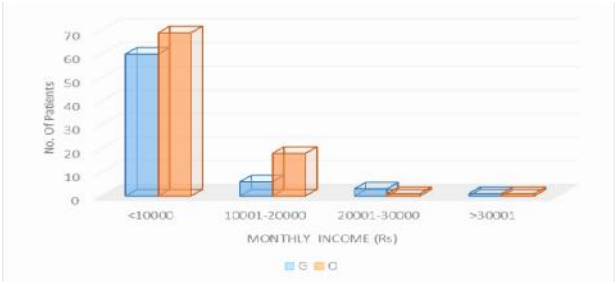
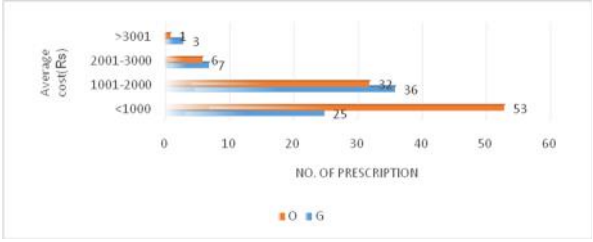



**Fig 2: Distribution of patients according to monthly income.**

### 3. Distribution of average cost of drugs based on Cost per prescription

Among 163 patients 25 gynecological and 53 obstetrics prescription having cost < 1000Rs. , 36 gynecological and 32 obstetrics prescription having cost1001-2000Rs. , 7 gynecological and 6 obstetrics prescription having cost 2001-3000Rs, 3 gynecological and 1 obstetrics prescription having cost more than 3000Rs.The results are graphically represented in Figure 3.




$X^2$:8.804 df: 3 p: 0.032 (Sig)

**Fig 3: Distribution of average cost of drugs based on Cost per prescription**

## 4. DISCUSSION

In our study we have enrolled 163 patients (92 obstetric and 71 gynecological Patients) among which the patients belonging to the age group of 21-30 years were more (n= 69) in obstetric and 41-50 years were more (n=31) in gynecological patients. A study conducted by Inamdar IF *et al*.,reveals that 77.6% of obstetrics patients belongs to the age group of 20-39 years[22]. Sharma R et al work on drug utilization pattern in north India also reveals that 6.17%, 59.26% and 22.22% women were of less than 20 years, between 20 to 35 years and more than 35 years of age, respectively (Inamdar 2012).

The present study shows that gynecological 15.3% having less than Rs. 1000, 22.1% having Rs. 1001-2000, 4.3% having Rs. 2001-3000, 1.8% patients having more than Rs.3000 where as in obstetric patients 32.5% having less than Rs. 1000, 19.6% having Rs. 1001-2000, 3.7% having Rs. 2001-3000, 0.6% having more than Rs. 3000 cost per prescription in In patients. Vyas S *et al.*, conducted a study of A cost analysis of deliveries conducted in various health care setting in a city of India reveals that Mean of total cost of normal delivery was Rs 575.13±172.04, Rs1839.73 ± 87.07, Rs3035.56±1538.32, Rs 812.27± 658.21 in government, corporation and private hospitals and in home respectively, Mean of total cost in case of CS delivery was Rs. 1823.67±801.1, Rs.4232.87 ±1135.94 and Rs. 9754.67±2450.28 (Vyas 2011).

## 5. CONCLUSION

On the basis of result and discussion we conclude that in obstetric patients more no. of patients are 21-30 years of age and in gynecology more patients are of 41-50 years of age and the monthly income is less than 10000Rs. in both obstetrics and gynecology patients, in cost prescription the more no, of obstetric patients having less than 1000Rs. and gynecology having 10001-2000Rs. per prescription which shows that the cost of prescription is not much more than monthly income, So the patient didn't get more burden for the treatment.

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