

**DRUG UTILIZATION STUDY IN POSTOPERATIVE PATIENTS ADMITTED IN ENT DEPARTMENT OF A TERTIARY CARE HOSPITAL OF MAHARASHTRA.**Sanjeeva Kumar Goud T.\*<sup>1</sup>, Dr. Rahul Kunkulol<sup>2</sup>

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**ABSTRACT**

The problem of over use of anti-Microbial is a global phenomenon in India the prevalence of use of anti-microbial varies from 24 to 67%. Some concern About overuse of Antibiotics are that it leads to unnecessary cost and the potential of adverse effects for the individual taking antibiotics, but even more important concern is the adverse effect on the public health because excessive use of antibiotics has led to the development of antibiotic resistant bacteria. Aim of this study was to study in postoperative patients admitted in ENT department of a tertiary care hospital of Maharashtra ENT IPD MGM medical College in Mumbai, India.

**KEYWORDS:** The problem of over use of anti-Microbial in Mumbai, India.**INTRODUCTION**

Ear nose and throat (ENT) infections are common clinical problems occurring in the general population it is a cause of serious morbidity and debility. These infections affect the normal daily functioning of both adults and children. The frequent cause of absenteeism from work.<sup>[1]</sup> chronic otitis-media is a serious consequence in developing countries it may leads to retarded language development and progress in school children's. Otitis-media leads annually to the death of over 50,000 children under 5 years Air pollution also increase directly affect nose, larynx and causing inflammation, irritations. Microorganisms associated with ENT infections increasing environmental pollution, alternative sources for new drugs are necessary. Ear, nose, and throat disorders are fatal, they may cause serious cosmetic, social and communication problems. Untreated hearing loss or deafness can drastically impair ability to interact with society. Nasal disorders can cause changes in facial features, interfere with tasting and breathing. Diseases arising from the throat may threaten airway patencies that interfere with speech. these disorders may cause considerable discomfort and pain for the patient require thorough assessment hat is prompt treatment.<sup>[2,3,4,5]</sup> Evaluation of the drugs is a continuous and systemic process in prescribing pattern to improve the therapeutic value, develop standard treatment guideline reduces the Fixed Dose Combination side effects. rational use of drugs studies will help full for medical professionals to prescribing pattern of antibiotics

and other category of drugs.<sup>[6,7,8]</sup> Here the present study was carried out to designed to express the treatment of Postoperative ENT IPD patient's drugs were given in MGM medical college and hospital Navi Mumbai.

**AIM AND OBJECTIVE**

To study the drugs usage pattern in postoperative ENT IPD patients

**MATERIALS AND METHODS**

**Place of study:** Department of Otorhinology, MGM Medical College & Hospital at Kamothe Navi Mumbai.

**Period of study:** July 2014 to January 2015 (This was MSc Medical Pharmacology thesis project)

**Type of study:** observational study.

**Sample Size:** 207patients.

Patients clinical data including patient Name, Age, Sex, Diagnosis, Medications.

**Prescribing Indicators**

1. Average number of drugs per encounter.
2. Percentage of drugs prescribed by generic name.
3. Percentage of encounters with an antibiotic prescribed.
4. Percentage of encounters route of drug administration.

**RESULTS****Table 1: Distribution of cases according to age and sex.**

Age	Male	Female	Total no. f patients
0<14	20 (10%)	10 (5%)	30 (15%)
15-35	50 (25%)	44 (19%)	94 (44%)
36-60	55 (28%)	8 (4%)	63 (32%)
>60	12 (6%)	6 (3%)	18 (9%)
Total	139(69%)	68 (31%)	207 (100%)

Table -1 Shows the distribution of different age groups. The highest no. of patients was in the age group of 36-60=63 (32%) following 36-60=63 (32%) respectively.

common antibiotic was cefixime 36.20% and followed by Metronidazole 12.06%, ofloxacin 5.17%, Amoxicillin+ Clavulanic acid 2(7.69%) Graph: 1.

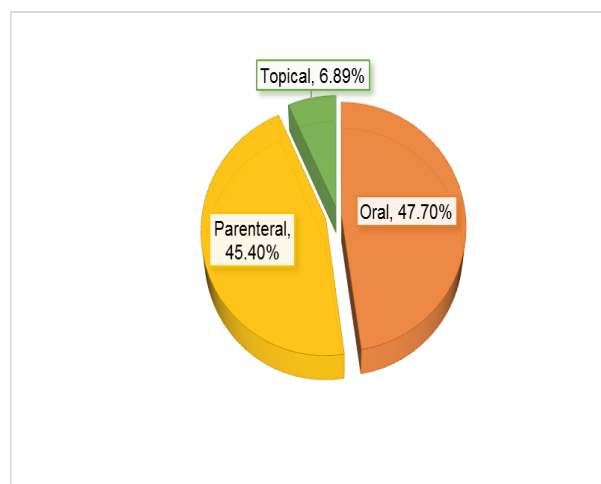
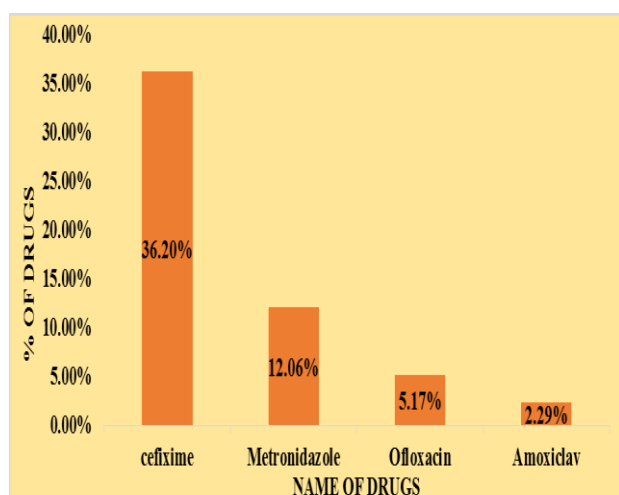
**Table 2: Prescribing indicators among Inpatients.**

Parameter	No. (%)
Total no. of Prescription	207
Total no. of Drugs Prescribed	522
Mean no. of drugs per prescriptions	2.52
Total no. of Antibiotics prescribed	291(55.74%)
Mean no. of Antibiotics per prescriptions	1.40
Total no. of Antihistaminic prescribed	93(17.81%)
Total no. of Analgesic prescribed	84(16.09%)
Total no. of Topical preparation prescribed	36(6.81%)
No. of Drugs Prescribed by Generic name	0%
No. of Drugs Prescribed by Brand name	100%

Table-2 shows the total number of drugs prescribed 522 and mean number of drugs per prescription was 2.52. 291 (55.74%) drugs were prescribed Antibiotics, Antihistaminic prescribed 93 (17.81%). followed by Analgesic prescribed 84 (16.09%) were the most commonly prescribed group of drugs.

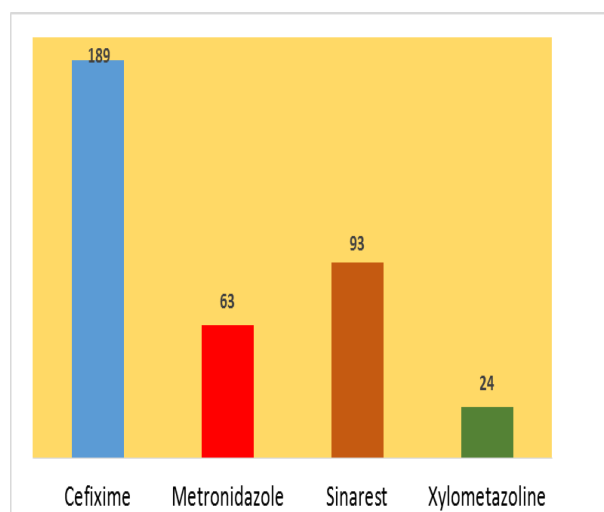
**Table 3: Route of Drug administration.**

Route of Drug administration	Percentage of Drugs
Oral	47.70%
Parenteral	45.40%
Topical	6.89%

**Figure 2: Showed Percentage of Route of Drug administration.****Figure 1: Showed Pattern of prescribed Antibiotics in Percentage.**

Out of total 522 (100%) prescribed DRUGS antibiotics, 156 (80.41%) were prescribed by oral route. The most

Figure-1 Shows, the most common Oral route 47.70% followed by Parenteral 45.40% and Topical 6.89%.

**Figure 3: Provides most commonly prescribed drugs.**

**Graph: 3** shows Out of 522 medications Cefixime 189, Metronidazole 63, Sinarest (Paracetamol+ Phenylephrine + Chlorpheniramine) 93 and Xylometazoline 24 was the most commonly prescribed.

## DISCUSSION

A total number of 207 patient prescriptions were analysed and the demographic data (Table 1) showed that percentage of males suffering from ENT infections was more than females. Earlier study findings were also reported that the higher percentage of males suffering from ENT infections.<sup>[6-8]</sup> Among the 207, the age group following 139 (69%) were male, 68 (31%) were female respectively. Our results are in accordance with the other studies.<sup>[9]</sup>

The average number of drugs per prescription is an important parameter while doing a prescription audit. A hospital-based study in India had reported a mean number of two drugs.<sup>[10]</sup> The mean number of drugs prescribed in this study more than two drugs it studies reported in the literature.<sup>9</sup> Each prescription contains antibiotic, antihistamine, and analgesic on an average. Hence, physicians should preferably keep the mean number of drugs per prescription as low as possible as higher figures always lead to increased risk of drug interaction, development of bacterial resistance and increased cost.<sup>[11]</sup>

In our study, most common antibiotic was Cefixime 189 drugs. This is in accordance with other study conducted by *Kishore Kumar Y et al*,<sup>[12]</sup> 37 in total 349 drugs reported. Taxim is used for short term treatment of bacterial infections of Ear, skin and soft tissue.

Metronidazole were prescribed 63 drugs, similarly Abubakar K et al,<sup>[13]</sup> study conducted results were 36(13.7%). Ofloxacin 5.17% prescribed similarly Abubakar K et al,<sup>[13]</sup> study conducted 66 (25.1%). Paracetamol+ Phenylephrine + Chlorpheniramine=39 similar study Sanjeeva Kumar Goud et al,<sup>[9]</sup> 71(55.90 %) common categories of drugs prescribed to CSOM outpatients.

An average number of drugs per prescription are an important finding for assessing rationality. Hence, it is necessary to keep the mean number of drugs per prescription as low as possible. Most of the patients were prescribed antibiotics. All the patients were prescribed by branded name drugs physicians more depend on brand names despite knowing the reduce cost of generic drugs None of them received by the generic drugs. Usage of generic drugs is helpful to decreasing the cost of therapy and avoiding medication errors.

## CONCLUSION

There were no generics drugs were prescribed. We recommend motivating doctors for encourage prescribing by generic names Standard therapeutic Guidelines can be formulated for the common ENT infections and followed

universally; this will be promote rational use of drug especially antimicrobial agents.

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