

A PROSPECTIVE STUDY ON THE PRESCRIBING PATTERN OF MEDICINES IN OUTPATIENT PAEDIATRICS DEPARTMENT IN A TERTIARY CARE TEACHING HOSPITAL

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ABSTRACT

Prescribing pattern studies are one of the currently powerful exploratory tools to ascertain the role of drugs in the society. Range of the licensed drug in appropriate dosage form is limited in paediatrics medicines compared to adult. The aim of the study to analyse the disease pattern and the drug prescribing pattern for outpatients in the paediatrics department in a tertiary care hospital. A total of 750 prescriptions were collected and examined. Majority of the paediatric patients suffering from bronchitis (29%) followed by fever (25%) and acute gastro enteritis (20%) was the most common reason for attending the paediatrics outpatient department. The other common diagnosis were upper respiratory tract infections(18%). Among the total of 3450 drugs prescribed the most frequently prescribed drug class was antibiotics(40%) followed by NSAID(25%) and bronchodilators (14%). Pharmaceutical care is needed in the correct management of drugs which is even more important in case of paediatric patients.

Keywords: Antibiotic, Paediatrics, Prescription pattern.

INTRODUCTION

Paediatrics is a branch of medicine which deals with the development, disorders and diseases of children. Prescribing pattern studies are one of the currently powerful exploratory tools to ascertain the role of drugs in the society.¹As the differences in the pharmacodynamics and pharmacokinetics, infants and children are more especially unguarded to illnesses and harmful effects of drugs.²Range of the licensed drug in appropriate dosage form is limited in paediatrics medicines compared to adult.³Epidemiological evaluation of medicine use in paediatrics patients have been limited. While establishment of drug therapy strategies, the safe and effective drugs in sick neonates, infants, children's and adolescents needed.⁴The use of antimicrobial agents, especially antibiotics became more routine

practice for the treatment of illness, irrational use of antibiotics may lead to worsen the illness and infections. The ultimate goal is to achieve rational and effective pharmaceutical care to the paediatric patients.

This present prospective study carried out in the paediatrics department in K.G Hospitals, Coimbatore, Tamilnadu state India. In this study, we planned to analyse the prescribing pattern of the paediatric patients in a tertiary care teaching hospital, thereby promoting the rational and safe usage of the drugs in the outpatients.

MATERIALS AND METHODS

Study design: A prospective observational study to analyse the prescribing pattern of the paediatrics among the outpatients on the basis of age, morbidity data and medicines prescribed.

Study Site: The study was carried out in K.G hospitals for data collection.

Study setting: The study was conducted in Department of Paediatrics in K.G Hospitals, Coimbatore.

Source of data: All necessary and relevant data's were collected from the medical report department (MRD).

Collection of data: A total of 750 prescriptions were selected on random basis to reduce bias. The patient demographic data's like age, sex, bodyweight, and the systemic examination data's were recorded and the medicine related data's include name of the drug, dosage form, frequency, duration, route of administration were collected and noted in the predesigned data collection form.

Duration of the study: Around one year (1st June 2014 to 1st June 2015).

Inclusion criteria: Outpatients in paediatrics department

Statistical data analysis: For statistical analysis used Microsoft Excel Windows2009, SPSS 16 version used for computation of data's and the results presented as % and mean \pm standard deviation.

RESULTS

During this study 750 prescriptions were analysed. Majority of the paediatric patients were in the age group from 1-6 years (43.4 %) shown in Table 1. The male patients were 38 % and the female patients were 62%. Disease morbidity data shows majority of the paediatric patients suffering from bronchitis (29%) followed by fever (25%) and acute gastro enteritis (20%). The profiles based on the morbidity shown in Figure 2. The number of medicines per prescription found to be with a minimum of 0 and maximum of 4 drugs. The average numbers of medicines per prescription were 3.25 ± 1.03 . Among the total of 3450 drugs prescribed the most frequently prescribed drug class was antibiotics (40%) followed by NSAID (25%) and bronchodilators (14%) and the class of drugs prescribed shown in Figure 3.

DISCUSSION

Pharmaceutical care is needed in the correct management of the medicines in case of paediatric patients. The present study based on the data obtained from the 750 prescriptions in an outpatient department of paediatrics. Based on the gender base female patients are more compared to male patients who are visiting the hospital during our study period. Majority of the patients diagnosed with bronchitis compared with other diseases. Hence the most frequently prescribed classes of drugs were antibiotics followed by NSAIDs. Antibiotics were prescribed in 410 prescriptions without any investigations and at least an NSAID prescribed to 25% of the patients and is comparatively similar to the study done by Lita Susan Thomas et al (i.e, 14.28%)⁵. In this study only 12% antibiotics were given by intravenous injection and it was opposite to a study conducted by Tomson et al indicated that excessive use of injectables.⁶

CONCLUSION

This study provides the information about the prescribing patterns of drugs in the paediatric outpatient department in a tertiary care teaching hospital. And conclude the role of clinical pharmacist is vital to be an integral part of the healthcare team in order to identify as well as to clear the irrational use of medicines in paediatrics. Pharmaceutical care is needed in the correct management of drugs which is even more important in case of paediatric patients.

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Table 1: Age distribution of the paediatric patients

Age	Number of patients	Percentage (%)
0-6 weeks	68	6.8
6 weeks-1 year	275	27.5
1-6 year	434	43.4
6-12 years	223	22.3

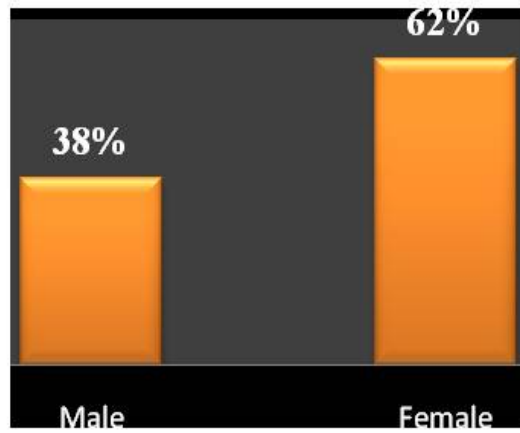


Fig. 1: Gender distribution of the patients

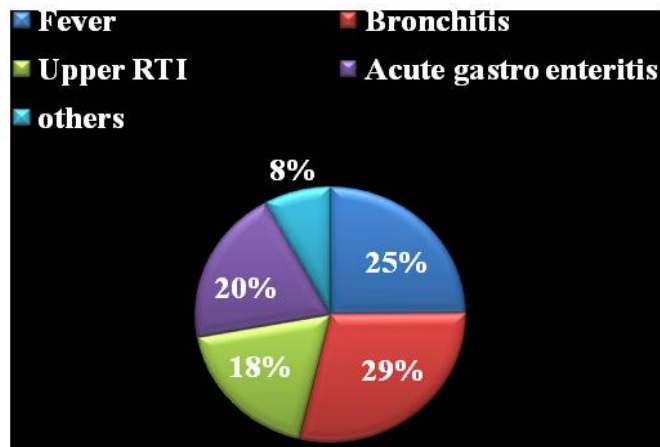


Fig. 2: Morbidity data

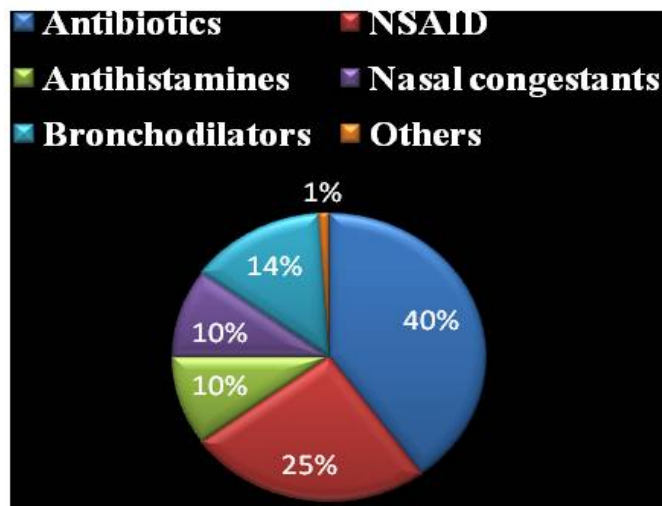


Fig. 3: Prescription pattern of medicines prescribed

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