

OTC IN PEDIATRICS

KrupaK chand*, Jeny Samuel, Bobby Johns George, Noby Thomas and SR. Betty Carla

Department of pharmaceuticals, St. Joseph College of pharmacy, Cherthala, Kerala, India.

ABSTRACT

The drugs used as OTC in pediatrics are increasing now a day. Measures to reduce this immense use of medicines as OTC should be studied in order to avoid adverse effects. A study on OTC in pediatrics was carried out in a tertiary care hospital in Kerala, India.. This study included drugs commonly used as OTC. Patients were randomly taken and it is an retrospective study. The most commonly used drugs as OTC comes under the classes such as analgesic, antiinflammatory, antihistaminic, antiseptics, cough syrups, etc. Drug treatment was related to age, sex, height, weight, and geographical status of patients. From the study, it was found that most commonly used drugs are antiseptics and cough syrups.

INTRODUCTION

Pediatrics is the branch of medicine that deals with the medical care of infants, children, and adolescents, and the age limit usually ranges from birth up to 18 years of age. Parents usually turn to nonprescription medications for treatment of the common cold in children¹. Medications used may include antihistamines, decongestants, expectorants, antitussives, or a combination. Although current packaging for these products states, "Do not use in children under 4 years of age," accurate dosing knowledge is extremely important, since primary health care providers may still recommend that parents use these agents in children under the age of 4. When used as directed, nonprescription cough and cold products can be safe for the pediatric population, and a pharmacist's counseling is integral to ensuring that they are being used safely and at appropriate doses.

According to a recent survey of pharmacists, more than 60% of OTC recommendations sought by the public involved cough and cold products². This is no surprise, since the common cold is the most frequently occurring illness worldwide and the leading cause of missed school or work days³. Orally administered over-the-counter (OTC) cough and cold medications contain a variety of active ingredients including acetaminophen,

antihistamines, dextromethorphan, decongestants (eg, alpha adrenergic agonists such as phenylephrine or pseudoephedrine), and ethanol. These medications frequently cause significant toxicity in children younger than six years of age⁴. Topical agents, such as imidazoline ophthalmic and nasal drops (eg, tetrahydrozoline or oxymetazoline), and camphor containing products are also frequently used to control cough and cold symptoms and can have major toxicity. The approach to pediatric poisoning from OTC cough and cold medication in children will be reviewed here. The toxicity to children posed by individual ingredients (eg, acetaminophen, dextromethorphan, imidazolines, or camphor) and the use of cough and cold medications in children are discussed separately: While giving advice about OTCs is one of the pharmacist's duties, it is getting increasingly hard to provide this service, particularly when it concerns children. In October 2007, the FDA held a Public Advisory Committee meeting to discuss and develop recommendations for the safe use of pediatric OTC cough and cold products. This meeting resulted in new labeling for some children's cough and cold products and spurred the removal of some formulations from the market. From the time this information began trickling into community pharmacies, pharmacists have been struggling to provide appropriate

counseling regarding pediatric OTC cough and cold products⁵.

MATERIALS AND METHODS

OBJECTIVE

To study the over –the-counter use of pediatrics drugs in various treatments.

METHODOLOGY

STUDY DESIGN: Randomized studies

STUDY SETTING: Pediatric ward

STUDY PERIOD: SIX MONTHS

STUDY POPULATION: Children aged from 1 to 12 with mild and moderate diseases.

INCLUSION CRITERIA: children diagnosed with mild and moderate diseases aged 1 to 12.

EXCLUSION CRITERIA:

- Children with chronic diseases.
- Children with a history of congenital heart disease.
- Children for whom consent cannot be obtained

DATA COLLECTION

- Method of randomization
- Study was administered by chief investigator
- Pediatric patients of IP and OP was identified under the age group of 1 to 12
- Consent from parents or by standers was obtained. Past medication

history and demographic data were collected.

- Demographic data includes age and sex of the patient
- Characteristics such as height and weight were also collected.
- Questions regarding the medicines used as over –the-counter were asked to the parents. Only mild and moderate pediatric diseases were considered for study.

DATA ANALYSIS

The data were entered in Microsoft Excel format and the statistical analysis of Continuous variables.

ETHICAL CONSIDERATIONS

Informed consent was obtained from parents of patients willing to participate in the study in local language and English.

RESULTS AND CONCLUSIONS

LIMITATIONS

- Time period was limited hence the different adverse reactions relating to the various drugs used could not be studied.
- The numbers of patients were limited and more studies are needed to draw conclusion about the level of harm due to OTC medication.

Table 1: Comparison of patients based on age

Age in yrs	Frequency	Percent
1	1	4 %
1.5	4	16 %
2.5	3	12 %
3	2	8 %
3.5	2	8 %
4	4	16 %
4.5	1	4 %
5	1	4 %
7	1	4 %
8	1	4 %
9	1	4 %
10	1	4 %
11	1	4 %
11.5	1	4 %
12	1	4 %
Total	25	100 %

Descriptive Statistics – Age of samples				
Number of samples	Minimum	Maximum	Mean	Std. Deviation
25	1 yr	12 yrs	4.86 yrs	3.42

Table 2: Comparison of patients based on place of living

Place of living	Frequency	Percent
Rural	22	88 %
Urban	3	12 %
Total	25	100 %

Table 3: Comparison of patients based on medicines used as over the counter

Drugs	Frequency	Percent
analgesic-antipyretic antiasthmatic antiseptic	1	4 %
analgesic-antipyretic antiasthmatic antiseptic antibiotics	1	4 %
analgesic-antipyretic antiasthmatic antibiotics antihistamine	1	4 %
analgesic-antipyretic antiasthmatic anticold-decongestant	2	8 %
analgesic-antipyretic antiasthmatic antihistamine	1	4 %
analgesic-antipyretic antiseptic antibiotics	2	8 %
analgesic-antipyretic antibiotics	1	4 %
analgesic-antipyretic antibiotics anticold-decongestant	1	4 %
analgesic-antipyretic antibiotics oral antifoaming agent	1	4 %
analgesic-antipyretic oral antifoaming agent	1	4 %
antiasthmatic antiseptic antibiotics	2	8 %
antiseptic	1	4 %
antiseptic antibiotics	3	12 %
antiseptic antibiotics antihistamine	2	8 %
antiseptic antibiotics vitamins	1	4 %
antidiarrhoeal antibiotics anticold-decongestant	1	4 %
antibiotics	1	4 %
antibiotics antihistamine	1	4 %
antihistamine	1	4 %
Total	25	100 %

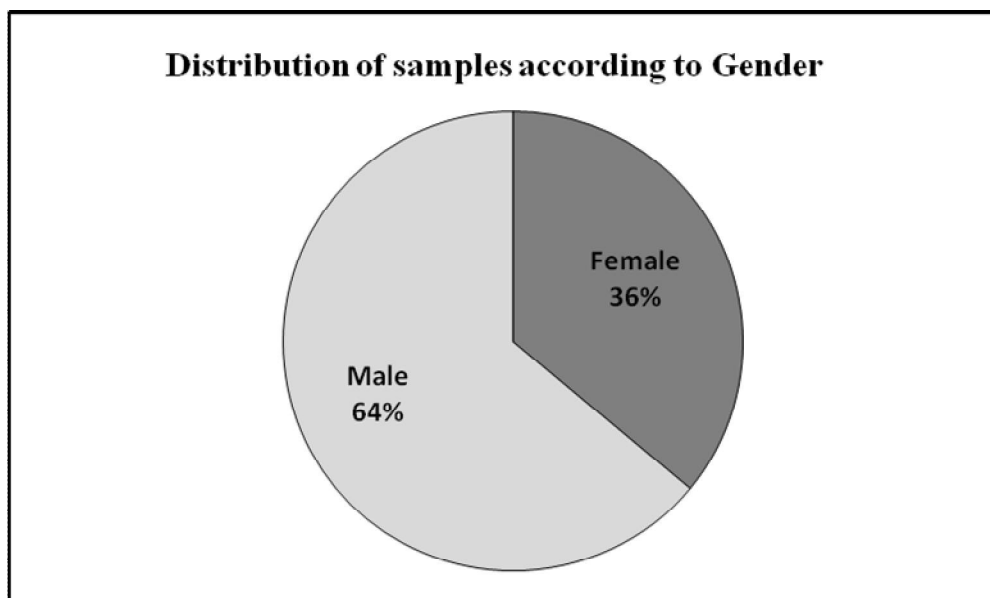


Fig. 1: Comparison of patients based on sex

CONCLUSION

- The average age of children using medicines as OTC are 4.86 years.
- Male children use OTC drugs more than females. This may be probably because male children are more prone to allergic condition like cough and cold than female children.
- Patients from rural area are more prone to OTC. This shows the lack of education in rural area.
- Antibiotics and Antiseptics are found to be more common

REFERENCES

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