International Journal of Pharmacology and Clinical Research (IJPCR)

IJPCR |Volume 5 | Issue 2 | Apr - Jun - 2021
www.ijpcr.net

Research article Clinical research

ISSN: 2521-2206

THE STUDY OF MEDICATION ERRORS IN MULTI-SPECIALTY HOSPITAL

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ABSTRACT

Aim of the study : the medication errors in multispecialty hospitals.
Objective of the study Medication errors are the most common types of injuries experienced by hospitalized patients. Such type of events may be related to professional practice, health care products, procedures, and systems.
Results of study : A total of 120 cases of the patients were collected out of which we detected 28 errors from 26cases, in which 24(92.3)cases have only a single error each, and the other 2(7.7) cases have two errors each during their hospital stay out of26 cases from which medication errorswereobserved15(57.6wereofmale,and11(42.4were of female, and most of the medication errors were identified in age groups 50-70 years(41.2a total of 28 medication errors observed among which 46.4 were of administration errors, 35.7 were of dispensing, and 17.5were of prescribing. Most of the medication errors were 46.4due to nurses, 35.7due to pharmacists, and 17.5were due to physicians. On the evaluation of severity majority of medication errors, 65.7were classified as a category error, no harm followed by 34.3 were in the no error category.
Conclusion : of the study of The study concluded that 13.5 of medication errors were detected during the study period and revealed that pharmacists could play a significant role in preventing these errors by detecting the merely.

INTRODUCTION

The medication therapy goal is to achieve the maximum therapeutic outcome, i.e., to improve the patient's quality of life with minimum or no risk. Therapeutic use of prescription and non-prescription drugs has both known and unknown errors, which causes drug misadventures, including Medication errors and ADR events.
The National Coordinating Council for Medication Error Reporting & Prevention defines medication error as a preventable event that may lead to cause inappropriate medication use or harm to the patient. In contrast, the medication is in the control of healthcare professional and patient .these type events may be related to the professional practice and health care products, procedures, and systems, including prescribing, packaging, labeling of a product, compounding of the product, dispensing, administration, monitoring, and use.
Medication errors can be committed by either experienced or inexperienced health care personnel during the patient's stay at any time in the hospital or can also be committed during manufacturing or maybe while compounding and dispensing. Adverse drug event: An *adverse drug event* (ADE) is defined as harm experienced by a patient due to exposure to a medication. As with more general term adverse event, the occurrence of ADE does not necessarily indicate the occurrence of error. *Preventable adverse drug events can* result from a medication error that reaches the patient and causes any extent of harm, It is generally estimated that about half of ADEs can be prevented. Medication errors don't cause any damage because they are intercepted before reaching the patient or because of luck and are often called *Potential Adverse events.*

OBJECTIVES

The main aim and important objective of the study is to achieve the following.

- To ascertain and evaluate the errors inmedication therapy in atertiary care teaching hospital.
- To ascertain medication errors and to classify them based on NCCMERP guidelines.
- To outline potential outcome associated with medication errors.

METHODOLOGY

This study was done for six months, from November 2020toMarch2021,
Research design:
Type of study: a prospective observational study
Participants: In patients who were on medication
Sample size 120

Primary outcome measure

1) Number
2) Type
3) Clinical importance of errors
4) Category and severity of medication errors

Source of data: Case sheets of the in-patients with hospital medical records.

Study materials :

- Patient profile form
- Medication error reporting and documentation form
- NCCMERP guidelines

PLACEOFSTUDY

This was done in all in-patient departments of Multispecialty Hospital, Hyderabad, which are 300 bedded multispecialty hospitals.

RESULTS

Table 1 : Types Of Medication Errors (N=28)

Types of medication errors	No. Of medication errors observed	Percentage (%)
Prescribing error	13	46.4%
Administration error	9	32.1%
Dispensing error	6	21.4%

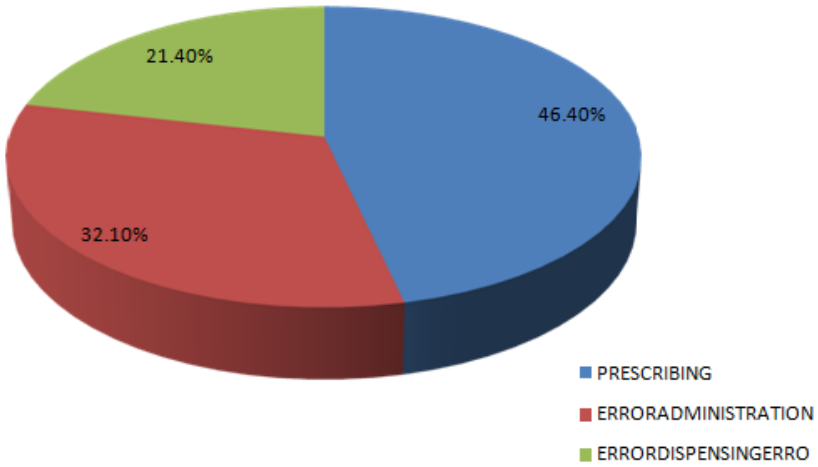

Figure 1

Table2 : Causes of prescribing Errors (N=6)

PRESCRIBINGERRORS	NO.OF ERRORSOBSERVED	PERCENTAGE(%)
ILLEGIBLE H,ANDWRITING	2	33.3%
NODOSEPRESCRIBED	2	33.3%
NOFREQUENCY	1	16.6%
NO ROUTE	1	16.6%

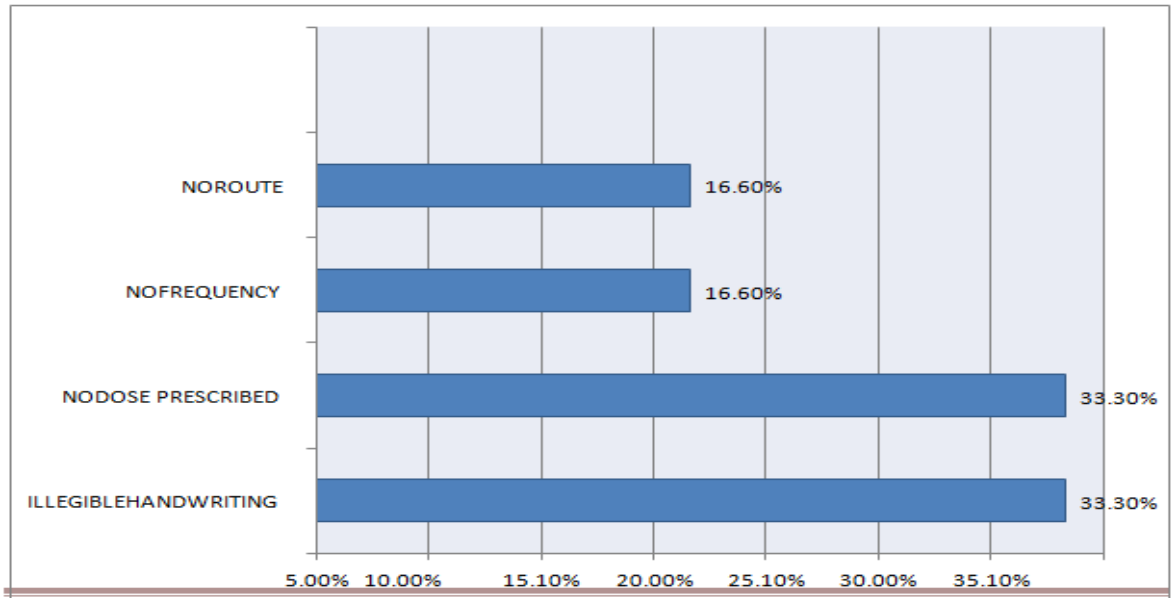

Figure 2

Table 3 : Causes of dispensing errors (N=9)

Types of dispensing errors	No. Of Errors observed	Percentage (%)
Wrong Dose	5	55.5%
Wrong Medication	4	44.5%

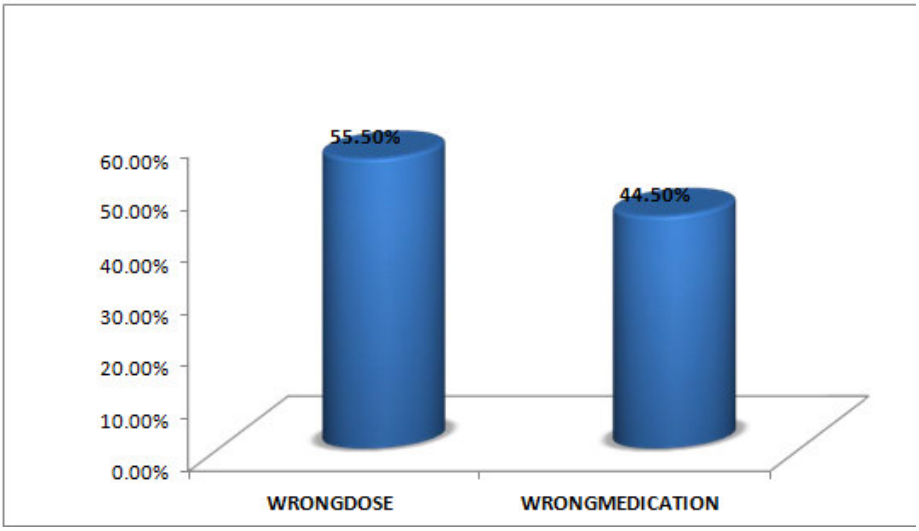

Figure 3

Table 4 : Causes of administration errors (N=13)

Administration errors	No Of Errors observed	Percentage (%)
Omission errors	9	69.2%
Wrong Time/Dose delay	3	23.2%
Without order	1	7.6%

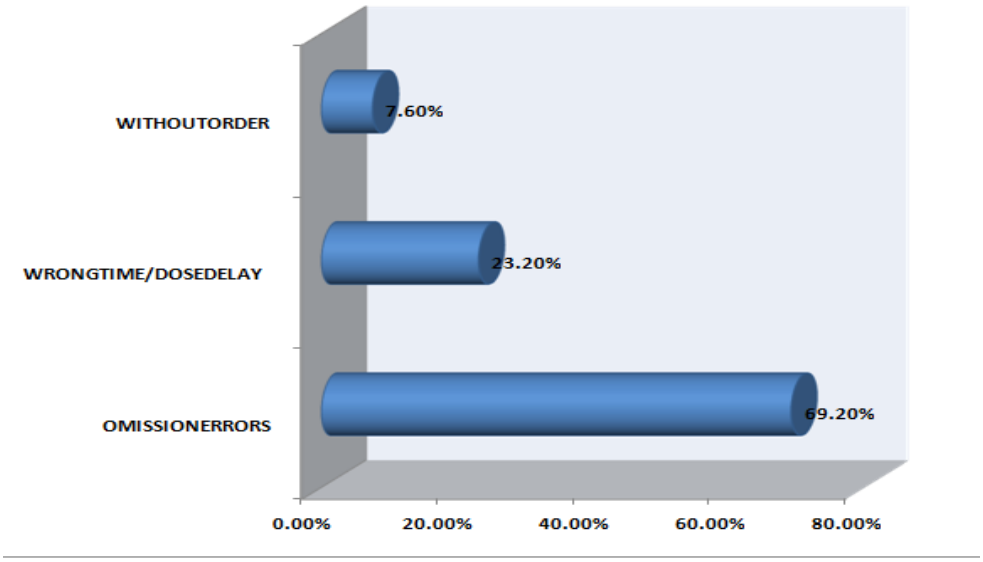

Figure 4

DISCUSSION

Medication error is an event that is associated with the use of medication that should be preventable through an effective control system. The factor that increases the chance of medication errors is the attributes of complex mechanisms involved in the prescribing, dispensing, and administration of drugs. Many authors have reported that reducing medication error includes reduced reliance on memory, improved asses to drug information, simplification, standardization, and training. Substantial evidence suggests that pharmacists in a decentralized patient care setting can reduce the frequency of medication errors

SUMMARY AND CONCLUSION

We have conducted this study in Hyderabad, Telangana, India. For aperiodof5monthsfromNovember 2020toMarch2021.The study aimed to identify and evaluate the medication errors that have occurred in a multispecialty hospital. Indin of the study were as follows.

- Total Number of cases reviewed:120
- Total Number of cases with medication errors: 26(21.6%)
- Total Number of medication errors reported: 28(23.3%)
- Gender distribution of medication errors: Male: 14(53.8%)
- Age-wise distribution of medication errors: 40-60years(46.1%)
- Professionals involved in medication errors : Nurses(46.4%)
- Major medication error reported: administration error (46.4%)
- A major cause for administration error: omission error(69.2%)
- A major cause for prescribing error: illegible hand writing(33.3%)
- A major cause for dispensing error: wrong dose(55.5%)
- Class wise categorization of drugs involved in medication errors : antibiotics(35.7%)

This study we have conducted in a multispecialty hospital has a pattern of finding medication errors. The present study we have conducted helps in establishing a medication error reporting system in each hospital. In this type of situation, the role of a clinical pharmacist appears to be a strong intervention, and the clinical pharmacist initially could only be confined to identification medication errors.

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