



A STUDY TO ASSESS THE QUALITY OF PRESCRIPTION WRITING PRACTICES OF DOCTORS IN OUTPATIENT DEPARTMENT IN A TERTIARY CARE TEACHING HOSPITAL

Hospital Administration

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ABSTRACT

The prescription is one of the most important therapeutic transactions between physician and patient. Use of proper format for prescription writing ensures the appropriate use of drug and helps in minimizing errors. The aim of this study is to assess the quality of the prescription written by the doctors.

MATERIALS AND METHODS: An Observational cross-sectional study was conducted on randomly selected prescriptions dispensed by the doctors in the various Outpatient Departments in Nizam's Institute Of Medical Sciences, Hyderabad, India over a period of 30 days.

All the prescriptions were analyzed for the presence of (a) Patient's information: Out-Patient file number, name, age, gender, address and contact number (b) Doctors information: Full name, department name, qualification, contact details, (c) Drug information: Name (Legible & Capital), strength, dosage form, dosage instructions, duration and total quantity.

RESULT: A total of 380 prescriptions in various outpatient departments were studied over a period of one month. Among which patient's weight was mentioned in only 32% of the prescriptions. Of the 380 prescriptions 126 were illegible, 252 were legible with effort and 2 prescriptions were legible with capitals letters. The generic name of the medicine is not mention in 363 prescriptions.

CONCLUSION: Prescription writing is a fundamental task performed by health professionals, an incorrect prescription may lead to fatal consequences including death. Strict monitoring of the prescription pattern by the administrative authorities of the hospitals and the government bodies also resolves the problem and improves the quality of prescription

KEYWORDS

Patient Safety, Prescription, Medical error, Legible

INTRODUCTION:

The prescription is one of the most important therapeutic transactions between physician and patient.¹ A prescription is an instruction from a prescriber to a patient as well as a dispenser. Use of proper format for prescription writing ensures the appropriate use of drug and helps in minimizing errors.² Prescription writing is a crucial task and suggests prescriber's responsibility towards the clinical care and the safe monitoring of the patient thus also carries legal implications. Illegible and incomplete medication orders are important factors that can increase the risk of medication errors and patients' harm.³ The essence of a good prescription writing is to ensure that the prescriber should know exactly which drug formulation and dosage to dispense, and the patient has explicit written instructions for self- administration of the prescribed drug.⁴ Knowledge of good prescribing practices is of prime importance to any medical professional irrespective of their qualification. The medication errors may be classified as

1. Drug Prescribing errors
2. Drug Dispensing errors
3. Drug Administering errors

This study aims to concentrate on drug prescribing errors.

METHODOLOGY

An observational cross-sectional study was conducted over a period of 4 weeks i.e from 1.08.18 to 31.08.18. A total of 380 patients exiting various departments in the hospital after obtaining prescriptions were selected randomly. The prescriptions were obtained directly from the patient to ensure that the prescribing doctors remain unaware of the study, so as to avoid bias.

A structured evaluation proforma containing 20 parameters for the institutional purpose was prepared by referring to various national and international prescription formats [8-12]. The proforma was then used to assess the quality of each prescription as follows (a) Patient's

information: OP number, name, age, gender, address and contact number, Weight. (b) Doctors information: Full name, department name, qualification, contact details, date of prescription, superscription, and signature. (c) Drug information: Name, strength, dosage form, dosage instruction, duration, and total quantity.

RESULT AND DISCUSSION

A prescription is an instruction from a prescriber to a dispenser. Every country has its own standards for the minimum information required for a prescription, and its own laws and regulations to define which drugs require a prescription and who is entitled to write it. There is no global standard for prescriptions and every country has its own regulations.

In India, the Medical Council of India has prescribed standards. The doctors must write prescriptions legibly and in capital letters as well as furnish a complete and detailed prescription. The comprehensive format includes the doctor's full name, his/her qualification, patient's details, name of the generic medicine or its equivalent along with the dosage, strength, dosage form and instruction, name and address of medical store with pharmacist's name and date of dispensing, as well as the doctor's signature and stamp.

The most important requirement is that the prescription is clear. It should be legible and indicate precisely what should be given. Doctors are legally obliged to write clearly. A prescription error can be described as "a failure in the prescription writing process that results in a wrong instruction about one or more of the normal features of a prescription"⁵. Errors in prescription usually arise due to careless attitude and hastiness exhibited by some health professionals during prescription writing.

A total of 380 prescriptions were collected randomly over a period of one month i.e from 01.08.2018 to 31.08.2018 and analyzed. Table 1 represents the number of prescriptions studied department wise. The

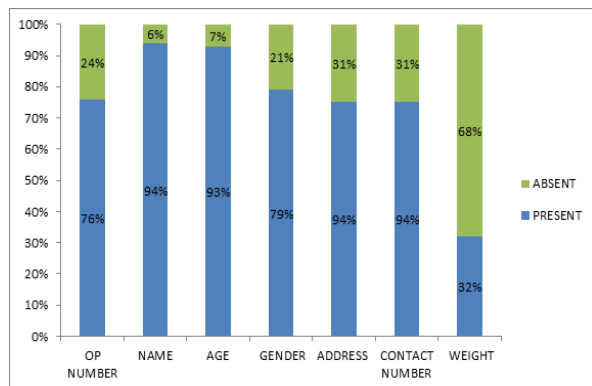
prescriptions were chosen randomly. Among the 23 departments, the highest numbers of prescriptions in the study were from the neurology department and the least from the radiation oncology department. The prescriptions were chosen randomly.

TABLE 1: Total Prescriptions studied

DEPARTMENT	NO. OF PRESCRIPTIONS
NEUROLOGY	40
RHEUMATOLOGY	35
CARDIOLOGY	30
MEDICAL GASTROENTEROLOGY	29
VASCULAR SURGERY	29
NEPHROLOGY	26
ORTHOPEDICS	22
GENERAL MEDICINE	21
UROLOGY	20
ENDOCRINOLOGY	15
MEDICAL ONCOLOGY	15
NEUROSURGERY	15
PULMONARY MEDICINE	12
SURGICAL GASTROENTEROLOGY	12
SURGICAL ONCOLOGY	12
HEMATOLOGY	11
GYNECOLOGY	8
DERMATOLOGY	7
CARDIOTHORACIC SURGERY	6
PLASTIC SURGERY	5
MEDICAL GENETICS	4
PSYCHIATRY	4
RADIATION ONCOLOGY	2
TOTAL	380

Patient's information regarding the Outpatient file number, name, age, gender, address, contact number, and weight is represented in Figure 1. In the prescriptions studied the outpatient number was mentioned in 76% and not mentioned in 24%. Patients' name was mentioned in 94% of the prescriptions, age in 93%, gender in 79%, address and contact number in 94%. Patient weight is mentioned in only 32% of the prescriptions.

Fig 1: REPRESENTS THE PATIENT INFORMATION IN THE PRESCRIPTIONS STUDIED



The legibility of the prescriptions studied is shown in fig 2. The evaluation of the legibility is done by dividing the prescriptions into illegible, legible with effort and legible, written in capitals. Out of the 380 prescriptions studied 126 were illegible, 252 were legible with effort and 2 prescriptions were legible with capitals letters.

Fig 2: LEGIBILITY OF THE PRESCRIPTIONS

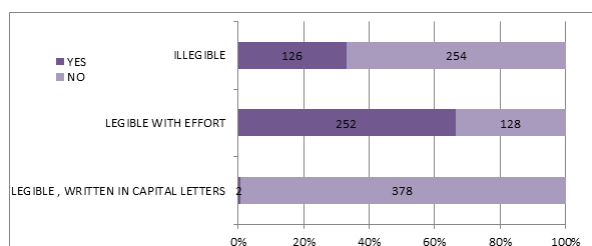
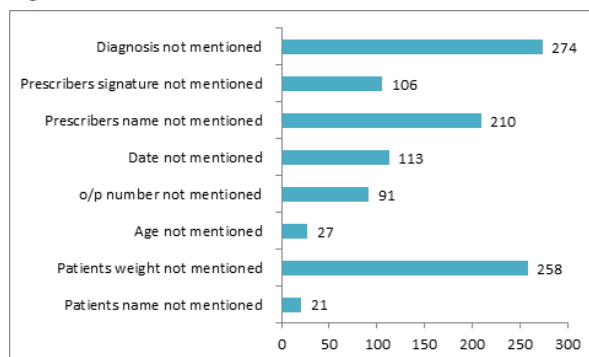


Fig 3: ERROR OF OMISSION – PRESCRIBER RELATED

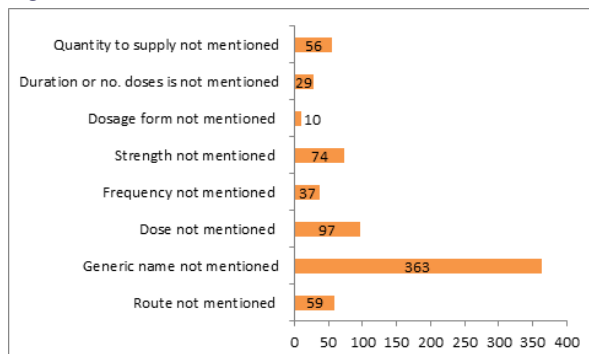


Prescription errors are either 'errors of omission' or 'errors of commission'. A prescription with essential information missing is an 'error of omission' whereas a prescription with wrongly written information refers to an 'error of commission'. Majority of prescriptions are errors of omission that represent irregularities in dosage form, strength, or regimen, and also illegible prescriptions.

Errors of omission – prescriber related and drug related are shown in Fig 3 and Fig 4 respectively. Among the prescriber related errors diagnosis is not mentioned in 274 cases, which amounts to 72% of the prescriptions. Weight of the patient is not mentioned in 258 prescriptions. Prescribers name and signature is not mentioned in 210 and 106 prescriptions respectively. In errors of omissions related to the drugs, generic name of the medicine is not written 363 prescriptions.

Prevention of errors at the prescribing stage is one of the most important steps toward reducing medication errors and it has been recognized as a priority in health care systems world wide.^{7,8}

Fig 4: ERROR OF OMISSION – DRUG RELATED



CONCLUSION:

Prescription writing does not conform to the stipulated MCI guidelines. Replacing the traditional handwritten documentation process with information technology could potentially improve the quality of prescribing and patient safety. Electronic prescription systems allow the prescribers to send the prescriptions directly to the pharmacy, which have immediate benefits of improving legibility and completeness and eliminating transcription errors. The clinical pharmacist plays a significant role in avoiding prescription and dispensing errors. In the outpatient prescriptions, the pharmacist should strictly adhere to the prescription and dispense the medicine accordingly. This will regulate the rational use of drugs. There is also an urgent need for more training programs and regular assessment of prescribing skills of the doctors to minimize the risk of medication errors. Strict monitoring of the prescription pattern by the administrative authorities of the hospitals and the government bodies also resolves the problem and improves the quality of prescription.

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