

**A STUDY ON PRESCRIPTION PATTERN IN OUT-PATIENT DEPARTMENT (OPD) OF
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ABSTRACT

INTRODUCTION: A prescription is defined as a written order from a registered medical practitioner to a pharmacist, instructing dispensing of medicines as indicated and explaining their use as per the directions provided. Prescription audit is the process that seeks to improve patient care and outcomes through a systematic review of care against explicit criteria and the implementation of change. **AIM:** To Study the Prescription Pattern in Out-Patient Department (OPD) of a Tertiary Care Government Teaching Hospital, North India. **OBJECTIVE:** To assess the compliance of Prescription Pattern in Out-Patient Department (OPD) with respect to available standard guideline. **METHODOLOGY:** The study was conducted in the Out-Patient Department (OPD) of a tertiary care government teaching hospital. It was an observational type of study for the duration of 02 months and 400 prescriptions were taken into consideration. Prescription audit was done using observational checklist issued by National Health System Resource Centre (NHSRC). Data analysis was done by using suitable software (MS-Excel). **RESULT:** It was observed that out of 400 prescriptions; 19.23% (77) were fully compliant and 80.77% (323) were partially compliant. Partial compliance was mainly seen in completeness, legibility and rationality of prescriptions. **CONCLUSION:** Regular auditing and feedback are important to promote safe prescribing practices.

KEYWORDS: Prescription, audit, compliance, rational, legibility.**INTRODUCTION**

Prescription is defined as a written order from a registered medical practitioner to a pharmacist, instructing dispensing of medicines to the patient as indicated and explaining their use as per the directions provided.^[1] Prescription audit is the process that seeks to improve patient care and outcomes through a systematic review of care against explicit criteria and the implementation of change.^[2] The good prescription must be complete, clear, rational, evidence based and reasonably legible.^[3]

The right prescription is the right of the patient. The responsibility of a good prescription is not limited to the prescribing doctor, instead it is a joint and mutual responsibility of the doctor, pharmacist, and patient. Doctors should prescribe a good, rationale, scientific, cost-effective prescription. Pharmacists should follow it and communicate the information to users, in the language best understood. To avoid polypharmacy, as per World Health Organization (WHO) the average

number of drugs prescribed should vary between 02 to 03 in a general OPD. However, number of drugs per prescription would increase at health facilities, taking care of senior citizens.^[2]

WHO has vigorously promoted the rational use of drugs through the Action Programme on Essential Drugs. The selection and rational use of medicines are accepted as key principles of health service quality and management in both the public and private sectors.^[4] The Government of India, Ministry of Health & Family Welfare (MOH&FW) is mandated to ensure the quality healthcare system by assuring availability of safe and efficacious medicines for its population.^[5]

The prescription audit is a part of the holistic clinical audit and is a quality improvement process that seeks to improve patient care and outcomes through a systematic review of care against explicit criteria and the implementation of change. Irrational prescribing is a global problem. The emerging data reveal that

prescribing errors are common and can affect between 4.2% to 82% of the prescriptions. Such errors can result in adverse event, unsafe treatment, additional cost of treatment, inefficient use of resources, and irrational medicine use.^[6] The **purpose of this study** is to assess the compliance of prescription pattern with respect to available standard guidelines.

MATERIAL and METHODS

The study was conducted in the Out-Patient Department (OPD) of a Tertiary Care Government Teaching Hospital, North India. It was an observational type of study and completed over the duration of 02 months and 400 prescriptions were taken into consideration and prescription pattern was studied. The prescription audit was done using an observational checklist provided by National Health System Resource Centre (NHSRC). The checklist comprises of 26 checkpoints. These checkpoints were categorized into- indicators for completeness of the prescription (patient details, diagnosis, medicine information, non-pharmacological treatment description, signature and information about prescriber) and indicators for legibility and rationality of the prescription (% of prescription; with legible writing, where medicines prescribed are in line with standard treatment guideline (STG), where allergies are mentioned, with brief history written, with provisional/final diagnosis, where salient features of clinical examination are recorded, where schedule/ dosage are written, with vitamins/ tonics/ enzymes, with prescribed • injections). The prescriptions were collected by probability proportional to size (PPS) sampling method. Data was analysed by using suitable software (MS-a) Excel) and was interpreted by literature experts & standard guidelines based on the field.

RESULT AND DISCUSSION

The selection and rational use of medicines are accepted as key principles of health service quality and management in both the public and private sectors.

- It was observed that out of total 400 prescriptions; 19.23% (77) were fully compliant and 80.77% (323) were partially compliant. (Fig. 1)

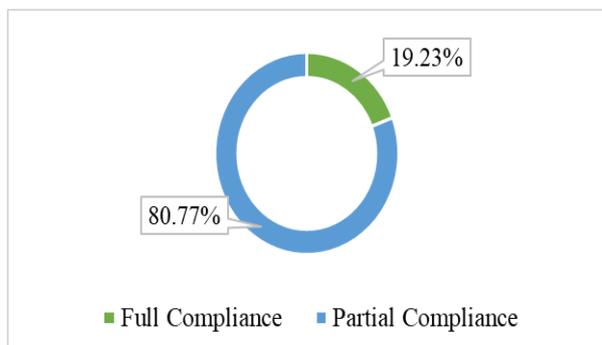


Fig. 1: Overall Compliance.

- The demographic details of patients included the age distribution and gender. Out of all the prescriptions,

maximum number of patients were between the age group of 19-60 years i.e. 72%. The gender proportion was 57% male and 43% female (Fig. 2 & 3).

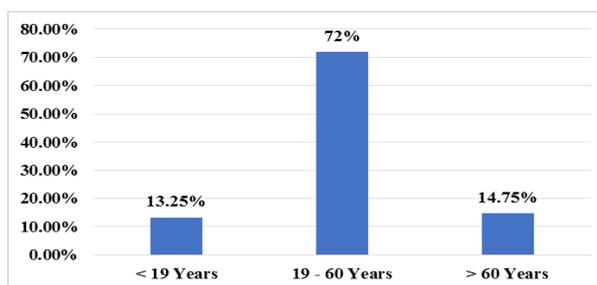


Fig. 2: Age Group Distribution.

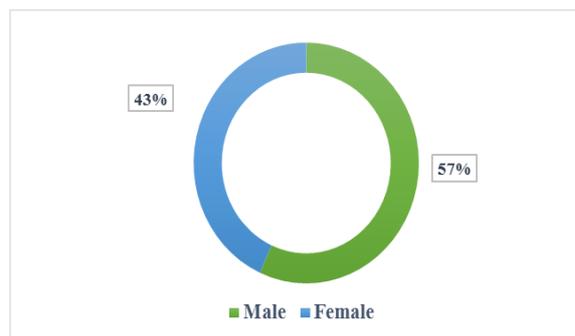


Fig. 3: Gender Proportion.

The prescriptions were divided into two categories based on the NHSRC checklist i.e.

Indicators for completeness: 71.15% were fully compliant and 28.85% were partially compliant. The compliance of each checkpoint for completeness of prescription is depicted in Fig. 4.

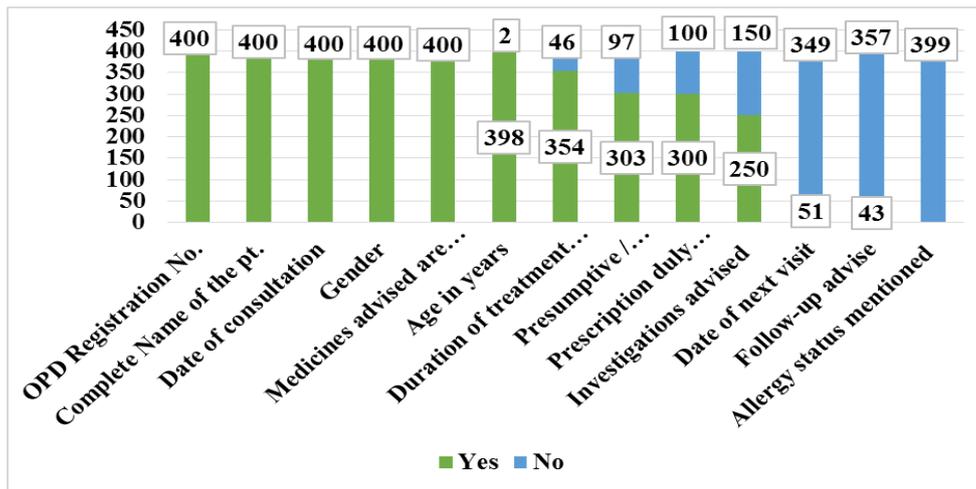


Fig. 4: Indicators for completeness of Prescription.

b) **Indicators for legibility and rationality of the prescriptions:** 47.25% were fully compliant and 52.75% were partially compliant. The compliance of

each checkpoint for legibility and rationality of prescription is depicted in Fig. 5.

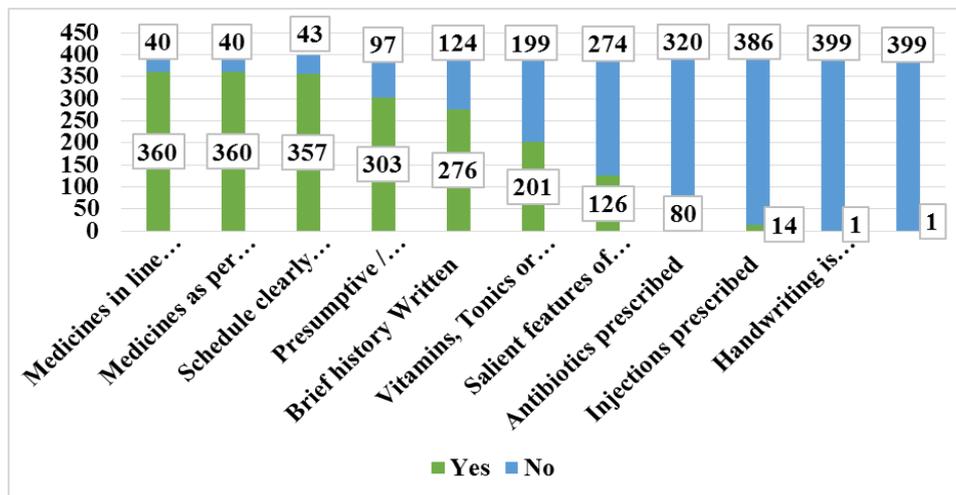


Fig. 5: Indicators for legibility and rationality of the prescription.

- The antibiotics were prescribed in 80 prescriptions out of which in 40 prescriptions antibiotics were prescribed as per facility’s antibiotic policy.
- As per World Health Organization (WHO), to avoid polypharmacy the average number of drugs should vary between 02 to 03. It was observed that 45% prescriptions had ≤ 3 medicines and 55% had > 3 medicines; Out of 55% prescriptions: (Fig. 6)
 - 19% of prescriptions had > 3 medicines & were ≥ 60 years of age
 - 81% prescriptions had > 3 medicines & were < 60 years of age

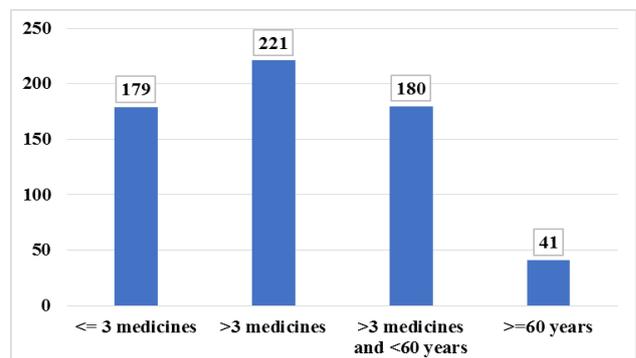


Fig. 6: Number of Medicines Prescribed (as per WHO).

CONCLUSION

Prescription audit is a facility level review exercise, that should be conducted periodically. It helps in analysing the Out-Patient Department (OPD); patient-related information, prescribing pattern of clinicians, appropriateness and availability of medicines, drug

dispensing practice of pharmacists. Thus, prescription audit is a fact-finding exercise but not a fault-finding exercise. It also aids to ensure that the patients receive high-quality care, which should be equitable, affordable and efficient.

Prescription errors are events that include various factors such as history of allergy, prescribing inappropriate dose etc. Hence, detecting such errors plays an important role in making of safer healthcare system. Therefore, a systematic analysis of prescription pattern will be helpful in reducing such errors.

The result of this study is; out of 400 prescriptions

- **Full** compliance 19.23% (77) was seen in OPD Registration Number, Complete Name of the patient, Date of consultation, Gender of the patient & Medicines advised are available in the dispensary.
- **Partial** compliance 80.77% (323) was seen in age, duration of treatment, investigations advised, follow up advise as well as in Legibility and Rationality of prescription.

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Ethical considerations: The study was conducted in accordance with ethical guidelines.

Conflict of Interest: There were no conflict of interest among authors.

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