

Original Research Article

Prescription audit of outpatient attendees in Gynecology department in India

Abstract-

- **Background-** Prescription auditing is a comprehensive clinical audit that improves quality of care by systematically reviewing treatment against defined criteria and making changes as a consequence. A prescription is a written order from a doctor to the person who will supply the drug. Every country has its own set of prescription information requirements, as well as rules and regulations defining which pharmaceuticals require a prescription and who is eligible to write it.
- **Objective-** The study is to be conducted in an Indian tertiary care medical facility with this in mind. The major purpose of this research is to determine the completeness of outpatient department (OPD) prescription forms, as well as to identify the elements that should be highlighted while writing a prescription, in order to improve the institution's overall quality of care.
- **Methodology-** The auditing process is a cyclical activity that involves evaluating a prescriber's practise of generating prescription orders, refining it to solve problems detected, and comparing the outcomes to audit criteria that have been agreed upon.
- **Results (estimated)-** According to the findings of the various prescription audits, the percentage of drugs administered by generic name is lower than required. The average number of antibiotic prescriptions is higher than the prescribed amount. NLEM's suggested drug list should be expanded.
- **Conclusion-** Prescribers must be aware of the need to write prescriptions in legible handwriting with capital letters for pharmaceuticals with generic names, as well as receive continuous training and be encouraged to do so. The most important condition for a prescription is that it be clear, understandable, and specific.

Keywords: essential drugs, consequences, Medication list, program, WHO, facility, prescriptions, auditing, irrational .

Introduction-

Background: A medical audit is a method of systematically examining medical treatment in order to find and document chances for improvement. A prescription audit is part of the medical review. An efficient prescription audit is crucial for health-care providers, facility administrators, and patients. It can alert health-care facility management of essential regulatory changes as well as fresh speculation that can assist health-care practitioners in their profession[1]. In principle, it is a way of evaluating the quality of therapy and care offered by physicians that is both objective and complete. Prescription auditing is an important strategy for improving the quality of prescriptions, which improves the quality of a physician's treatment. Prescription

audit data might help health administrators make decisions and determine the scope of future study to evaluate whether there is any benefit. Prescription audit is a facility-level evaluation activity that examines the facility's prescriptions on a regular basis [2]. It helps define the scope of OPD patient-related data as reported on prescriptions, doctor prescribing trends, pharmaceutical appropriateness and availability, drug dispensing processes, and dispensary workload. When prescription auditing is performed on a regular basis, it ensures that patients obtain good, fair, cost-effective, and efficient care[3]. For reliable prescription audits, the Essential Medications List (EML) for various levels of facilities, as well as the provisioning of medicines according to the EML, are required. EMLs must be evaluated every two years in a consultation process that includes all stakeholders. The states may create a permanent system for reviewing EMLs[4,5].

Objectives-

- To determine the extent of illogical prescribing,
- To identify prescribing errors and their causes, and
- To remove irrational antibiotic, syrup, injectable, and other medicine use.
- Identifying opportunities for improvement and establishing standards on a facility, district, state, and national level.
- To promote service providers' outstanding practice of writing thorough, legible, and appropriate prescriptions.

We have to complete data entry and statistical analysis. The analysis is to be carried out in percentages and displayed as tables when applicable. There are no international prescription guidelines, and each country has its own set of rules. The WHO has provided a wonderful design for writing a prescription. The research's tiny sample size is a constraint, however it is an exploratory study to improve methods and gather learning points, therefore a small sample size is appropriate.

The main aim is to analyse the prescription forms to gauge the completeness of those forms, and that we also aim to bring back light the factors which require to be emphasised on while writing a prescription. Improvements in medical treatment standards may improve quality of life, which can only be determined by prescription audit because it is based on documented data to support identification, treatment, and even hospital usage. It aids health-care practitioners in providing their patients with the best possible therapy. Basic prescribing indicators have been established by the World Health Organization (WHO) for prescription audits and medication consumption studies.

Prescriptions typically come in a variety of formats and sizes, especially at public health facilities. The Prescription Audit Guidelines encompass the use of plain paper, self-developed forms, state government formats, local pharmacy businesses, and charity organisations. Without a standard prescription, conducting a relevant 'Prescription Audit' is difficult. Prescription auditing is an effective way to improve the quality of prescriptions, which in turn improves the overall quality of health care. The purpose of this study is mainly to look at the rational use of drugs in terms of completeness, readability, and comparison to WHO-recommended core drug use indicators. The goal of prescription auditing is to enhance patient care and the rationale of medical prescriptions. Prescription auditing offers a lot of promise for encouraging sensible medication and the use of essential medicines. WHO has campaigned for sensible medication usage through its action programs on critical medicines. Analyzing the numerous prescription indicators can provide insight into health care workers' performance when it comes to proper medication use improves the overall quality of health care. The purpose of this study is mainly to look at the rational use of drugs in terms of completeness, readability, and comparison to WHO-recommended core drug use indicators. The goal of prescription auditing is to enhance patient care and the rationale of medical prescriptions. Prescription auditing offers a lot of promise for encouraging sensible medication and the use of essential medicines. WHO has campaigned for sensible medication usage through its action program on critical medicines.

Methodology-

This is a cross-sectional prospective study patients who visit the gynecology and prenatal outpatient department (OPD) will have their prescriptions reviewed using software developed by the Department of Pharmacology. Criteria are used in prescription audits to objectively measure the quality of service. Criterion is a carefully constructed statement that may be used to judge the appropriateness of certain healthcare decisions, treatments, and results, as defined by the Institute of Medicine in 1992. The prescription audit should include all critical service providers who offer care to patients. The 'Medicines and Therapeutic Committee' has a subcommittee called the Audit Committee. Before starting with the specific data collection, we will do a pre-test on a limited number of prescriptions (– for example 10) as a verification test. This research will be carried out in accordance with Schedule -Y (the New Drugs and Clinical Trials Rules, 2019) and, the Indian Council of Medical Research's (ICMR) regulatory requirement.

The information gathered will be examined using the following parameters:-

- (a) information on the prescription formats
- (b) the World Health Organization's (WHO) drug core indicators and
- (c) the prescriptions' legibility

The contents of the prescriptions will be evaluated, with the amount of adherence to the WHO guide to good prescribing, the updated WHO list of Essential Medicines, and the WHO Policy Perspectives on Medicines all being taken into account. The following parameters will be used to analyse the specifics of each prescription:

1. Format of the Prescriptions:

- (a) The patient's personal information, including name, age, and address.
- (b) Date of Prescription: The date on which the prescription was written.
- (c) Superscription: Rx stands for "recipe" or "take thou."
- (d) Prescription: Information on the medication as well as the generic or brand name of the drug.
- (e) Prescription: The pharmacist's dispensing instructions.
- (f) Transcription: Instructing the patient on how to take the medications.
- (g) Signature: Identity, name, address, and qualification of the prescriber.

2. Drug Use Indicators at a Glance

The prescribing practises will be studied using the WHO core drug use indicators for out-patient institutions. The following are the key drug use indicators that will be included:

- The average number of medications used in a single encounter.
- The percentage of medications administered that have generic names.
- The proportion of antibiotic-related contacts that are prescribed.
- The percentage of encounters with a prescription injection.
- The percentage of medications from the essential pharmaceuticals list or formulary that are prescribed.

Estimated result:

The data on morbidity patterns and known therapies for these conditions provided a logical framework for compiling a critical drugs list. Prescription auditing is an important technique for hospitals to use in order to improve the quality of care they give. Another technique for enhancing readability is to use electronic prescriptions. Analyzing the numerous prescription indicators can provide insight into health care workers' performance when it comes to proper medication use. Prescribers can only treat patients sensibly if they have access to required pharmaceuticals from an approved list based on current clinical practises and evidence. Prescription audit is a facility-level assessment activity that is carried out on a regular basis to examine the facility's prescriptions. It aids in determining the scope of OPD patient-related information as recorded on prescriptions, doctor prescribing patterns, appropriateness of medicine consumption and availability, drug dispensing procedures, and dispensary workload. Prescription audit is an improvement activity that, when performed on a regular basis, ensures that patients receive high-quality, equitable, cost-effective, and efficient care.

Discussion-

Literature review:

(1)A prescription audit study was conducted by Kandula P et al.

A total of 1093 prescriptions were assessed throughout the course of six months in this study, and the majority (56.4 percent) of patients who finished the trial were male. The majority of study participants were between the ages of 40 and 59.

For the prescription audit, a total of twelve parameters were accessed. Only 2.2 percent of the 1093 prescription audit samples exhibited non-compliance, 64.5 percent had

compliance, and 33.3 percent were not applicable to these parameters[6].

(2) Prescription auditing was carried out by Shadma Quazi et al. Five parameters were found to be poor after analysing the primary set of 100 prescriptions using 18 prescription factors recommended by the World Health Organization which are :

(out of 100)

- * Generic Name of Drugs (16)
- * Drug Dosage (84)
- * Total drug requirements (100)
- * Patient's address (100) and
- * Prescription Legibility (172 out of 200)

Conscious efforts were made to improve prescription uniformity of the second set. Hence leading to improvement of the patient care status[7].

(3) In a prescription auditing study conducted by Ahsan M. et al, an average of 4.02 2.23

drugs were prescribed per prescription, with antibiotics accounting for 39.01 percent of the total.

Despite the fact that 79.2% of medications on the Essential Drug List were prescribed, none were prescribed by their generic names. In our study, 7.54 percent of people used injections.

In 100% of the prescriptions, the doctor's registration number was missing.

There were numerous errors, including omitting allergy status, follow-up counselling, and usage directions.

Almost 8% of prescriptions were illegible (grade 3) and 66.8% were readable but difficult to understand (grade 2). Two independent investigators assessed prescription readability on a subjective scale.

Prescriptions were assessed on the following scale:

1st grade (legible with ease)

2nd grade (legible with difficulty)

3rd grade (illegible) [8].

(4) A prescription audit study was conducted by Solanki ND et al, in which a total of 13 parameters were accessed for the prescription auditing. According to the table, only

3% (74 cases) of the 150 prescription audit cases had non-compliance, 58 percent (1126 instances) had the set process, and 38 percent (750 cases) had these parameters not applicable.

Demographic reports revealed the following age distribution:

4.1 percent of patients were found to be under the age of 20, 16.2 percent of patients were found to be between the ages of 21 and 40, 43.2 percent of patients were found to be between the ages of 41 and 60, and 36[9-12].

Conclusion:

The creation and implementation of a "Hospital Formulary" based on the "WHO Model List of Essential Medications" has had a beneficial impact on the judicious use of drugs, however physician compliance has to be enhanced. Continuous efforts must be made to educate practitioners on the need of logical prescribing. Prescription audits are essential for focusing improvement efforts in the prescription process. According to the World Health Organization, "Patients get prescriptions that are tailored to their clinical needs, in doses that meet their unique demands for a reasonable amount of time, and at the lowest possible cost to them and their community." A prescription is a doctor's written order to a pharmacist. It is a vital link between the patient and the doctor. A doctor's prescription integrity demonstrates his knowledge and commitment to logical prescribing. Prescription auditing is a means of checking the quality of health-care services on an ongoing basis. A prescription audit entails analysing prescriptions and comparing them to WHO-approved global prescription writing guidelines. The term "audit" refers to the process of evaluating data, documents, and resources in order to guarantee that system performance fulfils predetermined criteria. "A quality improvement approach that strives to enhance patient care and outcomes by systematic analysis of treatment against certain criteria and the implementation of change," according to the definition of medical audit.

References-

1. Singh N, Varun N, Garg M. An audit of prescription forms of patients from obstetrics and gynecology clinics in tertiary care hospitals: An exploratory study. *Indian J Med Spec [serial online]* 2020 [cited 2021 Nov 14];11:85-7. <http://www.ijms.in/text.asp?2020/11/2/85/280110>
2. "Prescription Audit towards Quality Indicators at a Tertiary Care Teaching Hospital in South India." *Journal of Patient Safety & Quality Improvement*, 27 June 2020,
3. Ranjan, Ravi. "Prescription audit in outpatient department of a tertiary care teaching hospital in Jharkhand : and observational study." *IOSR Journal*, 6 June 2020,
4. Shrestha, R., Prajapati, S. Assessment of prescription pattern and prescription error in outpatient Department at Tertiary Care District Hospital, Central Nepal. *J of Pharm Policy and Pract* 12, 16 (2019). <https://joppp.biomedcentral.com/articles/10.1186/s40545-019-0177-y>
5. "Untitled." *National Health Systems Resource Centre* https://nhsrindia.org/sites/default/files/2021-07/1534_Prescription%20Audit%20Guidelines160420_21.pdf. Accessed 14 November 2021.
6. Kandula P, Rao S, Sangeetha K, Reddy Y, Gudi S. A STUDY OF PRESCRIPTION AUDIT IN OUTPATIENT DEPARTMENT OF A TERTIARY CARE TEACHING HOSPITAL IN INDIA: AN OBSERVATIONAL STUDY. *JDDT [Internet]*. 14May2017 [cited 16Nov.2021];7(3):92-7. Available from:
7. Jyoti N, Kaur S. To analyze the Impact of Serial Prescription Audits with Active Feedback on Quality of Prescription Behaviour. *J Clin of Diagn Res*. 2013; 7(4):680-683
8. Ahsan M, Shaifali I, Mallick A.K, Singh H.K, Verma S, Shekhar A. Prescription auditing based on World Health Organization (WHO) prescribing indicators in a teaching hospital in North India. *Int J Med Res Rev* 2016;4(10):1847- 1852. doi:10.17511/ijmrr. 2016.i10.22.
9. Solanki ND et al. *Int J Clin Trials*. 2015 Feb;2(1):14- 19 International Journal of Clinical Trials | January-March 201 5 | Vol 2 | Issue 1 Page 15
10. Jain, Vishakha, Lalit Waghmare, Tripti Shrivastav, and Chandrashekhar Mahakalkar. "SNAPPS Facilitates Clinical Reasoning in Outpatient Settings." *EDUCATION FOR HEALTH* 31, no. 1 (April 2018): 59–60. https://doi.org/10.4103/efh.EfH_32_17.
11. Ladke, Amruta B., Pandit A. Palaskar, and Vinod R. Bhivsane. "Parasitic Fibroid: Complication of Post-Laparoscopic Morcellation." *JOURNAL OF OBSTETRICS AND GYNECOLOGY OF INDIA*, n.d. <https://doi.org/10.1007/s13224-020-01307-7>.
12. Shrivastava, Deepti, and Ayesha Master. "Fetal Growth Restriction." *JOURNAL OF OBSTETRICS AND GYNECOLOGY OF INDIA* 70, no. 2 (April 2020): 103–10. <https://doi.org/10.1007/s13224-019-01278-4>.

UNDER PEER REVIEW