

Review on Validating the Usage of Prescription Audit Guidelines for Better Patient Care

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Abstract:

Appropriate medication use is essential for reducing pharmaceutical therapy costs, improving therapeutic outcomes through patient adherence, and removing preventable side effects. Worldwide, irrational prescription practices result in harmful and ineffectual therapies. The issue of irrational prescribing is prevalent. Only after a review of current prescribing practices can standard medication consumption guidelines be developed that encourage safe and cautious drug usage. A healthcare facility's prescribing practices need to be regularly reviewed in order to pinpoint specific prescription use problems, curb irrational drug use, and promote sensible medicine use.

The WHO has created a set of fundamental and standard prescribing indicators with goal of evaluating healthcare provider's performance in important areas pertaining to appropriate and responsible use of medications.

This study examines research that assessed medication usage patterns for different drug categories using WHO core prescribing indicators. Based on the examined research, this evaluation validates the best use of prescription audit technique.

Keywords: *Irrational prescribing, WHO core prescribing indicators, prescription audit*

Introduction (1,2,3,6,9,10,11):

The prescription is a set of specific directions issued by a medical practitioner to a pharmacist for the appropriate use of a medication or medications in a particular patient. It may be communicated in writing, verbally, or transmitted electronically. It connects the pharmacist with prescribers, other healthcare professionals, and, most importantly, the patient.

Prescription audit is a procedure for improving the quality of prescriptions. It also aims to provide better patient care. A 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. It is a continuous cycle of implementing changes and developing a new practice. A successful prescription audit is crucial for healthcare professionals, as well as patients and the public who assist these professionals in ensuring that patients receive the best care possible. Prescription audits, also known as medication audits, aim to make reasonable and cost-effective prescription procedures by monitoring, assessing, and making further recommendations regarding the practices of medical practitioners. Providing the right medicine to the right patient is the most crucial aspect of the healthcare system. Prescription auditing is a crucial technique for mitigating irrational use of drugs and improving the rational use of drugs.

Worldwide, it is believed that more than half of all the drugs, are prescribed, distributed, or marketed in an incorrect manner and half of all the patients are not adhered to their medication in a proper manner. Examples of irrational pharmaceutical usage include polypharmacy, inadequate dosage, and use of antimicrobials even for non-bacterial infections, excessive use of injections when oral forms are available and inappropriate, self-medication, and noncompliance with dosing regimens.

In order to analyse prescriptions and encourage the rational use of medications, the World Health Organization (WHO) has developed “**core prescribing indicators**”. These indicators mainly fall into the three categories as mentioned below:

A. Prescribing indicators

- Average number of medications per prescription
- Percentage of medications prescribed/administered by their generic names
- Percentage of prescriptions containing antibiotics
- Percentage of injections per prescription
- Percentage of medications prescribed from the essential drug list (also called the national list of essential medicines).

B. Patient care indicators

- Average consultation time
- Average dispensing time
- Percentage of dispensed medications
- Percentage of medications properly labelled
- Patient’s knowledge of correct dosage

C. Health facility indicators

- Availability of copy of essential drugs list in all OPD's
Availability of key drugs.

Method (2,3,5,6,9,12,14):

A systematic article search on prescription audit was carried out using various genuine electronic databases including Google Scholar, PubMed, Medline, Web of Science, ResearchGate and Global Health from. Finally, few acceptable publications were chosen for review based on the inclusion and exclusion criteria. The inclusion criteria of this review include those which meet the pre-requisites for carrying out prescription audit.

Observational studies that addressed the reasonable drug use pattern based on WHO prescribing parameters and articles which were authored and reported in English were taken into consideration. This review solely included the published articles and articles with adequate data for the review. In contrast, commentaries, literary works, and chapters from scholarly texts, as well as lectures, were omitted from the scope of this review. While selecting the appropriate review articles for this study, the full-text papers were retrieved and examined to verify eligibility, only after the titles and abstracts of those articles were independently evaluated for inclusion eligibility. All those studies which were conducted on prescription audit were reviewed as per the standard WHO core prescribing indicators.

Discussion (1,2,3,4,7,8,13,15,16):

As Prescription audit is an important aspect of pharmacy practice that serves to ensure safe and rational prescription drug use. Key findings of reviewing practices in prescription audit are as follows:

Quality of Prescriptions

Studies have proven that prescription audit can make prescriptions of better quality by reducing errors and ensuring patient safety.

Clinical and Economic Outcomes

Prescription audit also has positive impacts on clinical and economic outcomes. Few systematic reviews revealed that prescription audit is being associated with an improved health outcome, including reducing hospitalization rates and improving quality of life. Prescription audit also helps reduce healthcare costs by lessening the use of unnecessary drugs and fewer adverse drug events.

Barriers and Challenges

Although prescription audit has many benefits, there are still some barriers and challenges to it. These include lack of resources, inadequate training, and insufficient support from healthcare administrators. The effective implementation of prescription audit programs is thus dependent on these challenges being addressed.

Future Directions

Future studies should focus on developing and testing new innovative prescription audit strategies, including artificial intelligence and machine learning algorithms. In addition, studies

should explore the effects of prescription audit on patient outcomes and healthcare costs in various settings.

Other indicators to be covered in prescription audit are as follows:

1. Indicators for completeness of the prescription.

This can be assessed for each component of the prescription like patient's demographic details, diagnosis of the health issue, information about the medicine, signature and prescriber information.

2. Indicators for legibility and rationality of the prescription.

This includes evaluating the percentage of prescriptions with legible handwriting, percentage of prescriptions with brief history written, etc. In the case of legibility of prescription's they should be written in capital letters for clear understanding of the pharmacist.

Conclusion:

Prescription audit tends to improve the quality of prescription's issued, increase the safety standards to patients, and decrease healthcare costs. Understanding the barriers and challenges behind prescription audit will ensure its practical effectiveness.

The WHO mentioned core prescribing indicators do not yield information about legibility of prescription, clinical details, on recording the patient's demographic details etc.

Hence, those above mentioned additional indicators are expected to be recorded in conducting analysis of prescriptions, in order to cover all dimensions, improve the quality standards of prescriptions and to achieve practical effectiveness of a prescription audit.

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