

Original Research Article

Prescription audit in outpatient departments in tertiary care hospitals -a prospective study

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ABSTRACT:

Background: Prescribing audit is that part of the medical audit which seeks to monitor, evaluate and if necessary, suggest modifications in the prescribing practices of medical practitioners . To study the prescription pattern and assess the quality of prescription, with the standard prescription norms in Out Patient departments of various govt medical college and hospitals in Tamil Nadu

. Materials and Methods:

An Observational study was carried out during May-2018 Total 200 prescriptions of Out-patient department were collected, randomly scrutinized and statistically analysed.

Results: A total of 200 patients were evaluated for prescription audit out of which 51% were males and 49% were females. A total of 13 parameters were assessed according to the checklist provided by the hospital. Defects were found with regard to dose of drug in 18.5% of prescriptions, frequency of drug in 13% of prescriptions, time of administration in 16% of prescriptions, date in 8% of prescriptions and legibility in 5.5% of prescriptions.

Conclusion: frequent prescription audit is mandatory and will improve the quality of doctors to adhere to standard prescribing protocols, quality of management of patients , reduce the poly pharmacy ,drug related adverse reactions, and will improve the economy of the growing countries like India, computerising the prescriptions, drug dose calculators, and auto check for drug interaction options are available in many apps that can also improve quality of treatment.

Keywords: Prescription audit, adverse drug reactions ,standard prescription

Introduction

Prescription audit is an excellent method of reviewing the performance of Doctors and Pharmacists. To improve the quality of life, the standards of medical treatment needs to be enhanced at all levels of the health care delivery system. A medical audit may not observe these standards. Prescription audit is that part of the audit which seeks to monitor, evaluate and if necessary, suggest modifications in the prescribing practices of medical practitioners. Basic patient information identifies the prescription with the correct patient. Previous adverse reactions/allergies are important information related to patient safety and needs to be mentioned. Other

prescription documents containing information related to any treatment/drugs currently received by the patient needs to be taken note of. A fundamental principle of rational prescribing is that the patient has a greater chance of deriving benefit from the prescribed medication than being harmed. This judgement depends on the knowledge of four important aspects.

1. Clinical and medication history which includes previous adverse drug reactions.
2. The clinical diagnosis
3. Relevant patient and clinical factors that may influence drug action such as age, pregnancy, renal and hepatic impairment.
4. Familiarity with the medicine to be prescribed

Uncertainty in any of these aspects is likely to increase the chances of adverse outcomes.

Good clinicians have an organised and systematic way of reviewing their work and assessing their diagnostic accuracy and treatment outcome (audit).

Potential benefits of prescription audit:

1. Identify and promote good practice
2. Improve professional practice and quality standards
3. Supports learning and development of staff and organizations
4. Identify and eliminate poor or deficient practice
5. Promote working with multidisciplinary teams
6. Allocate resources (financial, human) to provide better patient care
7. Develop opportunities to present findings with relevant faculty and facilitate shared learning.

The prescription audit checklist must take into consideration the following points.

1. Patient information (name, age, OPD number)
2. Date
3. Quantity dispensed (dose of drug, route of drug, frequency/time of administration)
4. Refills and date prescribed
5. Prescriber signature
6. Prescriber's degree
7. Brand vs generic drugs
8. Legibility of the prescription

The clinical pharmacist/pharmacologist have a valuable role in this prescription audit that seeks to find out the reasons for incomplete prescriptions and deterioration in the quality level of documentation of outpatient departments.

Materials and methods:

The study was carried out at outpatient departments of various Government medical college Hospitals, in Tamil Nadu during the period of January 2018 to May 2018

As a part of prescription audit it was undertaken to evaluate the frequency of prescribing of four commonly used groups of drugs, cardiovascular drugs (CVS drugs), non steroidal anti inflammatory drugs including analgesics and antipyretics (NSAIDs), drugs acting on central nervous system (CNS drugs) and drugs used in acid peptic disease (APD drugs). An attempt was made to relate prescription data to age and sex of the patients. The frequency of prescribing of NSAIDs, CNS drugs, CVS drugs and APD drugs was 24.52%, 13.36%, 0.25% and 7.51% respectively. The prescribing frequency of NSAIDs was higher in females than in males, prescribing frequency of CVS drugs was significantly higher in males than in females. In males, the prescribing frequency of APD drugs was significantly lower in the below-20 age groups as compared with the above-20 age groups

The analysis was also done for the number of antimicrobials in each prescription, prescribed frequency of individual drug, number and dose unit prescribed, age and sex frequency. Attempt was made to correlate the usage of antimicrobials with culture and sensitivity test. Results: The frequency of prescribing semi synthetic penicillins and cephalosporins was 67%, doxycycline 4%, aminoglycosides 32%, quinolones 34% and metronidazole 25%

Results:

There are totally 13 parameters that were assessed for the prescription audit.

SERIAL NUMBER	AUDIT PARAMETERS	YES	NO	percentage
1.	NAME OF PATIENT	200	0	0
2.	AGE	200	0	0
3.	OPD NUMBER	199	1	0.5
4.	DOSE OF DRUG	167	33	16.5
5.	FREQUENCY OF DRUG	174	26	13
6.	ROUTE OF DRUG	200	0	0
7.	TIME OF ADMINISTRATION	168	32	16
8.	DATE	184	16	8
9.	LEGIBILITY	189	11	5.5
10.	DOCUMENTATION OF KNOWN ALLERGY	100	100	50
11.	UNIFORM LOCATION OF TREATMENT ORDER	195	5	2.5
12.	DRUG INTERACTIONS, IF ANY	200	0	0
13.	SIGNATURE OF THE DOCTOR WITH NAME IN CAPITALS, SEAL, REGISTRATION NUMBER	197	3	1.5

DEMOGRAPHIC REPORT:

SERIAL NUMBER	AGE IN YEARS	NUMBERS
1.	1-10	6
2.	11-20	6
3.	21-30	20
4.	31-40	18
5.	41-50	52
6.	51-60	40
7.	61-70	36
8.	71-80	18
9.	81-90	4

SERIAL NUMBER	CATEGORY	NUMBERS
1.	MALES	100
2.	FEMALES	94
3.	MALE CHILDREN	2
4.	FEMALE CHILDREN	4
	TOTAL	200

Analysis of results

Our study shows that certain areas need to be focussed while writing prescription to patients and these are dose of drug (16.5%), frequency of drug (13%), time of administration (16%), date (8%) and legibility (5.5%) in that order, in order to avoid prescription errors. These errors, if rectified in future, will lead to better prescriptions with minimal errors which will help to improve the quality of life of the patients and the standards of medical treatment

Conclusion:

frequent prescription audit is mandatory and will improve the quality of doctors to adhere to standard prescribing protocols, quality of management of patients , reduce the poly pharmacy ,drug related adverse reactions, and will improve the economy of the growing countries like India, computerising the prescriptions, drug dose calculators, and auto check for drug interaction options are available in many apps that can also improve quality of treatment.

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