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The study on effect of self auditing the prescriptions in a polyclinic

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ABSTRACT

Introduction

Prescription audit help us to monitor, evaluate and suggest necessary modifications in the prescribing practices to improve the quality of prescriptions. Our objective was to do the prescription audit of patients in clinic and its impact in improving the quality of further prescriptions.

Methods

Study was carried out during the period of March-April 2018. Total 50 prescriptions were collected, scrutinized and statistically analysed using WHO core prescribing indicators. Areas of improvement identified, conscious effort were put to improve the quality of prescription after the gap of two weeks. 50 more prescriptions were collected analysed and statistically compared with the first set.

Results

Total 100 patients were evaluated for prescription audit, by analysing first set of 50 prescriptions using 18 parameters prescribed in WHO core prescribing factors, it found that five parameters such as Generic name of drugs (08/50), Dosage of drug (42/50), Total number of drugs needed (00/50), Address of the patient (00/50), Legibility of prescriptions (50/100) were poor. Conscious effort were made to improve the quality of prescriptions in round 2, results were good, the above five parameters score seems to be improved, Generic name of drugs (50/50), Dosage of drug (44/50), Total number of drugs needed (50/50), Address of the patient (50/50), Legibility of prescriptions (88/100). It resulted in improved quality of patient care.

Conclusions

Audit is a process.we can use to improve patient care. Critically reflect and appraise (understand the worth of) the prescribing behaviour and practices, helps in identify the changes needed to improve the prescription for patient centred management

Keywords: Prescription audit, Self audit, WHO prescribing factors.

INTRODUCTION
Context

A prescription is a written communication from a medical practitioner to a pharmacy regarding instructions on dispensing of medication. Prescription audit is a quality improvement process that helps to improve patient care [1]. Medical Audit may be defined as a process with the aim of making improvements in patient care and proper use of resources. It is systematic and critical analysis of the quality of patient care. Thus audit is a systematic approach which gives a review of patient care.

Good prescription audit is important for physicians, patients, and the public. It also supports the doctors in making sure the patients receive the best care. Prescription audit gives the most detailed overview of performance, detailing parameter as per the check list of prescription audit. The quality of life can be increased by improving the standards of the treatment at the primary levels of the health care system.
A prescription audit supervises the observance of these standards [2].

DEFINITION

An 'audit' is defined as 'the review and the evaluation of the health care procedures and documentation for the purpose of comparing the quality of care which is provided, with the accepted standards [3]. Studying the prescription audit is that part of the audit which helps to observe, analyse and if needed, suggest corrections in the prescribing methods of practitioners. [4]

The main tool used for administration of medicines is the Prescription writings. There are many variations in prescriptions, but most of it contain the essential basic sections.

A basic rules of rational prescribing, should be considered before writing any prescription, This depends on knowledge of these areas: The clinical and medication history, including previous adverse effects; The diagnosis; Relevant patient and medical factors that might influence drug effect, e.g. pregnancy, renal and liver impairment; and Familiarity with the drug to be prescribed. Uncertainty in any of these areas is likely to rise the chances of undesired outcomes.

Best clinicians have always organized some kind of review of their work, recording and analysing the accuracy, of their diagnosis and the result of their treatment. We have learnt to call this act as audit. It will be not correct to define medical audit without discussing the concept on which its definition is based. But, for easy understanding of the matter, medical audit is defined as the evaluation of the quality of the medical care through the analysis of the medical records in the retrospect [5, 6].

Potential benefits of prescription audit [7]

1. Identify and improve better practice
2. Improve health care quality standards
3. Supports learning and development
4. Identify and remove deficient practice

Prescription audit can provide information about the documentation procedure it seeks to find out the basis of incomplete prescription and to increase quality level of documentations.
Main aim of the study was to observe different types of Prescription audit parameters & evaluate as per WHO checklist, Identifying the potential pit falls and try to correct in further prescriptions, thereby increasing the quality of patient care.

METHODS
Study setting

The study was carried out at sakthi polyclinc during the period of March 2018 to April 2018. An Observational study in which patients receiving medication during treatment were included and studied. This audit project is looking at how well we write prescriptions. A good prescription will be clearly written and have particular pieces of information on it. These are given by the World Health Organization (internationally accepted criteria)

1. Name of Prescriber
2. Address of Prescriber
3. Date
4. Name of drug - (Generic name used or not)
5. Strength of drug
6. Dosage - How much?
7. Dosage - How many times a day?
8. Dosage - How many days?
9. Other Instruction (eg after meals)
10. Total number /amount of tablets or syrup, pharmacy to dispense

11. Name of Patient
12. Address of Patient
13. Age of Patient
14. Legibility (scale of 0 to 2 - 0 - Illegible, 1 - Just legible, 2 Perfect)
15. Number of drug items on prescription
16. Number of combination drugs on prescription
17. Number of antibiotics on prescription
18. Total number of injections prescribed on this prescription (1 a day for 5 days is 5 injections)

Inclusion Criteria

Prescription sheets of Patients who visited the clinic. Male & female patients were included in the Study

Exclusion Criteria

Patients who not in need of any medications are excluded.

Statistical Analysis

Prescriptions are selected only after randomisation, everyday 2,4,8,10,12th prescriptions are selected for study. Data where noted in spread sheet and analysed by using microsoft excel.

METHODOLOGY OF IDENTIFICATION OF CHANGES

1. Carbon paper used to make a copy of 5 random prescriptions each day for 10 days, a

2. Total of 50 prescriptions.
3. Collected prescriptions were analysed and examined using the excel sheet
    a. Mark 1 or 0 for each item (1-13),
    b. Mark 0, 1, or 2 for how easy it is to read the writing (Item 14)
    c. Numbers for each item (15-18).
4. After entering this data, add up for total and percentage(%) or average
    a. Out of 50 (for items 1 – 13)
    b. Out of 100 (for items 14)
    c. Average (for items 15-18)
5. Scores for each of the criteria looked after to analyse the performance.
6. Performance analysed with the **standard of 95%** (for items 1-14).
7. Areas of improvement identified

Methodology of implementation of changes

1. Increased allocation of time and conscious effort were put to implement these changes.
2. After 2-3 weeks, start the process again and collect data for 50 more prescriptions.
3. Analysed them as in the first round of audit.
4. Analysed and compared with first round data for improvement.

RESULTS

Prescription Set 1

Table 1. 18 WHO core prescribing indicators with its scores/ averages in set 1 prescriptions

S No	Parameters noted	Scores /average
1.	Name of Prescriber	50/50
2.	Address of Prescriber	50/50
3.	Date	50/50
4.	Name of drug - (Generic name used or not)	08/50
5.	Strength of drug	50/50
6.	Dosage - How much?	42/50
7.	Dosage - How many times a day?	50/50
8.	Dosage - How many days?	50/50
9.	Other Instruction (eg after meals)	50/50
10.	Total number /amount of tablets or syrup, pharmacy to dispense	00/50
11.	Name of Patient	50/50
12.	Address of Patient	00/50
13.	Age of Patient	50/50
14.	Legibility (scale of 0 to 2 - 0 - Illegible, 1 - Just legible, 2 Perfect)	50/100

| 15. | Number of drug items on prescription | 1(average) |
16.	Number of combination drugs on prescription	0(average)
17.	Number of antibiotics on prescription	0(average)
18.	Total number of injections prescribed on this prescription	0(average)

Prescription Set 2

Table 2. 18 WHO core prescribing indicators with its scores/ averages in set 2 prescriptions

Sl No	Parameters Noted	Scores /Average
1.	Name of Prescriber	50/50
2.	Address of Prescriber	50/50
3.	Date	50/50
4.	Name of drug - (Generic name used or not)	50/50
5.	Strength of drug	50/50
6.	Dosage - How much?	44/50
7.	Dosage - How many times a day?	50/50
8.	Dosage - How many days?	50/50
9.	Other Instruction (eg after meals)	50/50
10.	Total number /amount of tablets or syrup, pharmacy to dispense	50/50
11.	Name of Patient	50/50
12.	Address of Patient	50/50
13.	Age of Patient	50/50
14.	Legibility (scale of 0 to 2 - 0 - Illegible, 1 - Just legible, 2 Perfect)	86/100
15.	Number of drug items on prescription	1(average)
16.	Number of combination drugs on prescription	1(average)
17.	Number of antibiotics on prescription	1(average)
18.	Total number of injections prescribed on this prescription	1(average)
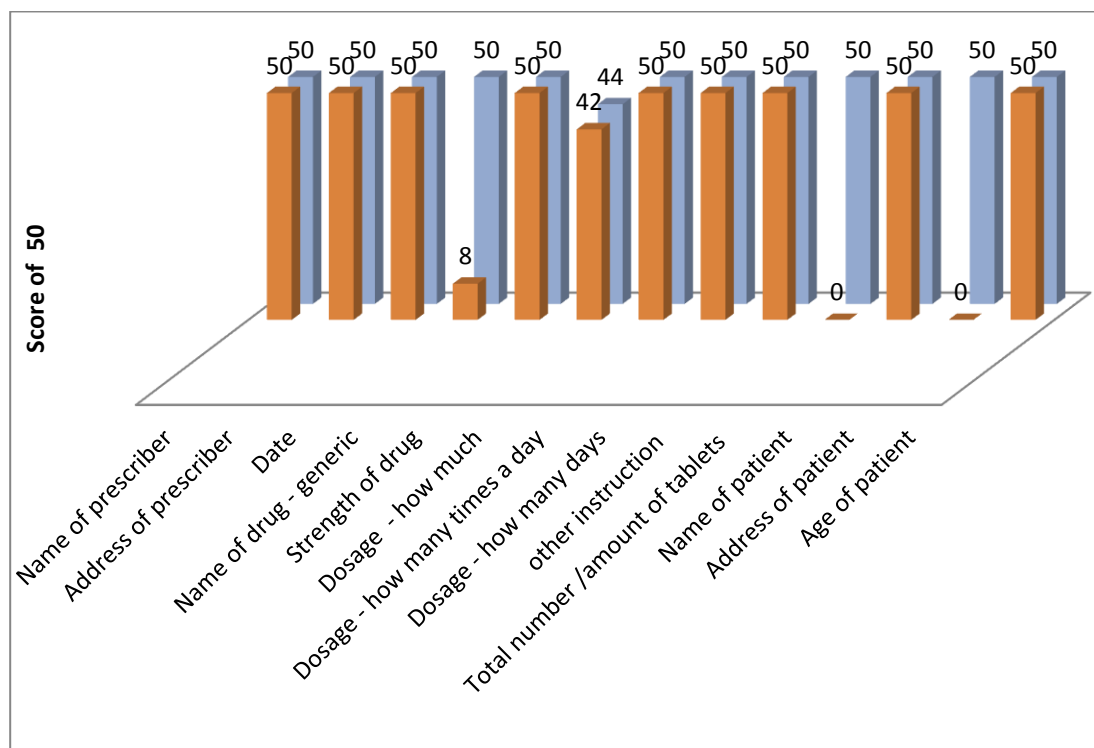
Fig 1 Comparative analysis of set 1 and set 2 prescriptions
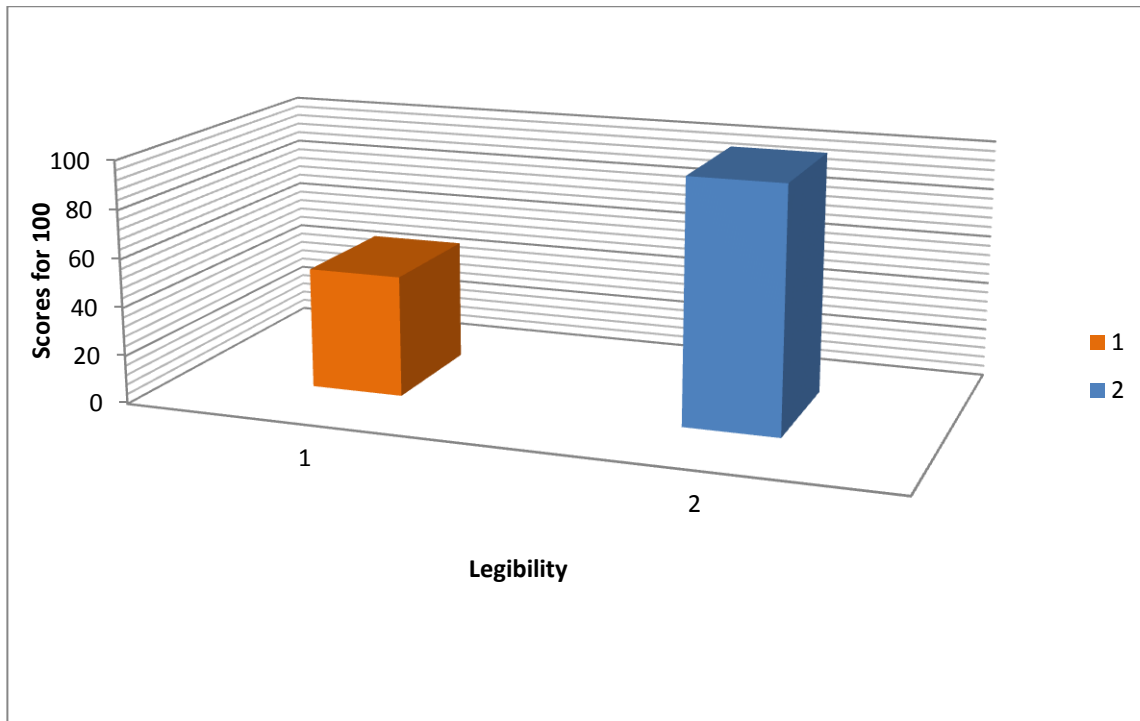
Fig 2 Legibility of prescriptions

Identified area of change

By analysing first set of 50 prescriptions using 18 parameters prescribed in WHO core prescribing factors, it found that five parameters such as Generic name of drugs (08/50), Dosage of drug (42/50),Total number of drugs needed (00/50), Address of the patient (00/50), Legibility of prescriptions (50/100) were poor. Conscious effort were made to improve the quality of prescriptions in round 2, results were good, the above five parameters scores seems to be improved viz Generic name of drugs (50/50), Dosage of drug (44/50),Total number of drugs needed (50/50), Address of the patient (50/50), Legibility of prescriptions (88/100). It results in improved quality of patient care.

DISCUSSION

Prescription auditing is one of the ideal tool to avoid misuse of drugs and improves rational use of medicines. It is estimated that over half of all drugs are prescribed, dispensed inappropriately, and that nearly 50% of patients fail to take their drug correctly. Examples of irrational use of drugs include:

1. Poly-pharmacy,
2. Inadequate dosage, and
3. Use of antimicrobials even for non-bacterial infections,
4. Excessive use of injections when oral forms are available and
5. Noncompliance to dosing regimes [8].

Parameters analysed in prescription auditing

The parameters which has to analysed in the prescription auditing are,

Patient demographics

*   Name
*   Sex
*   Age
*   Body weight
*   Date of prescription

Clinical diagnosis

Prescribing standards

 i. Dose
ii. Dosage form
iii. Pharmacological name
iv. Brand name
v. Duration of treatment
vi. Time of administration

DOCTORS NAME AND SIGNATURE

DEMOGRAPHIC DETAILS (Superscription)

The superscription includes the date of prescribing; the name, address, weight, and age of the patient; and the Rx.

The symbol "Rx" is said to be an abbreviation for the Latin word, meaning "take" or "take thus," as a direction or order to a pharmacist, preceding the physician's "recipe" for preparing a medication [1].

The patient's name and address are needed on the prescription order to make sure that the correct medication goes to the correct patient. For the dose calculation, a patient's weight, age, or body surface area, should be noted on the prescription.

Clinical diagnosis

A diagnosis made on the basis of clinical signs and symptoms, rather than diagnostic tests. Clinical Diagnosis plays its part in the delivery of quality treatment.

Prescribing standards

The prescribing standards include: Dose, Dosage form, Pharmacological name, Brand name, Duration, Time of administration. Prescribing standards has to be followed as per the prescribing standards which helps in rational prescribing. Poor handwriting is a well-known and correctable cause of dispensing errors, legibility is essential [1].

Doctors Name and Signature

Doctor name, address and qualification. It requires that prescriptions for controlled substances include the name, address, and registration number of the physician[1].Most of the prescriptions lacking the full prescriber information are one of the pitfall and increase chances to get treatment errors [9].

WHO core prescribing indicators

The Performance of the physician related to the use of drugs can be understood by analysing the various prescribing indicators. The indicators that can be included in the study are based on the practices observed in a clinical setup. These indicators can be analysed either by retrospectively, from data recorded in patient records or can be done prospectively too.

Similar articles including international journals were analysed to verify whether the standard prescribing standards were followed. These studies shown that majority of doctors are not following the standards in writing the prescriptions and usage of medicine. There is a need to standardize the prescribing patterns in India so that all basic information is included and will be useful for the better patient care

In our study by analysing first set of 50 prescriptions using 18 parameters prescribed in WHO core prescribing factors, it found that five parameters such as Generic name of drugs (08/50), Dosage of drug (42/50),Total number of drugs needed (00/50), Address of the patient (00/50), Legibility of prescriptions (50/100) were poor.

All needed was spending bit more time and attention in filling up the prescription pads, so conscious effort were made to improve the quality of prescriptions in round 2, increased time with every prescriptions, final results were good, all the above five parameters scores seems to improved Generic name of drugs (50/50), Dosage of drug (44/50), Total number of drugs needed (50/50), Address of the patient (50/50), Legibility of prescriptions (88/100). Even though legibility and dosage of drug not up to 100% but there was a marked improvement from round 1, increased attention may increase the scores further in coming days.

Ultimately prescription audit is a self test tool, which helps us immensely to correct our prescriptions by pin pointing our mistakes. Applying these simple corrections resulted in improved quality of patient care.

CONCLUSION

Audit is a process we can use to increase the patient care. Critically reflect and appraise (understand the worth of) the prescribing behaviour and practices, helps in identify the changes needed to improve the prescription for better patient centred management. The irrational prescribing, improper dispensing will cause unnecessary expenditure for the patients. Many of the prescribing trends are a thought of concern and requires need for attention. The value of prescription audits in generating and testing on incorrect prescribing will definitely make an intervention to improve prescribing methods and ultimately patient care will be improved. So prescription audit is an important and ideal tool to improve the quality of patient care.

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