



PRESCRIPTION WRITING: A REVIEW

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ARTICLE INFO

Article History:

Received 4th June, 2019

Received in revised form 25th July, 2019

Accepted 23rd August, 2019

Published online 28th September, 2019

Key words:

Prescription Patient Dosing

ABSTRACT

Prescription audit is a tool as well as a technique and its application is science as well as an art. The quality of a prescription reflects the competence of a physician and his attitude towards rational prescribing. The present study was carried out at Siliguri by collection of prescriptions from government hospitals including Medical College and private practitioners in a randomised manner from different streams, after analysis of about 37000 prescriptions, there were many prescription errors, need to be improved for better patient care. An increase in correct prescription writing practice and some seminars on rational prescription writing for senior doctors can reduce the errors.

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INTRODUCTION

Prescription: A physician's order for the preparation and administration of a drug or device for a patient. A prescription has several parts. Prescription audit is a tool designed for the objective assessment by and to the medical care provider of meeting their own standards in their professional day to day care. (1) Prescription audit is a quality improvement process that seeks to improve patient care. It is systematic and critical analysis of the quality of medical care. (2) Writing a prescription is an important mode of therapeutic intervention by the doctor for the patient. The quality of a prescription reflects the competence of a physician and his attitude towards rational prescribing. (3) Most important part of healthcare system is to deliver the right medicine to the right people. Prescription auditing is one of the important tools to avoid misuse of drugs and improve rational use of drugs. Worldwide, it is estimated that over half of all medicines are prescribed, dispensed or sold inappropriately, and that half of all patients fail to take their medicine correctly(4). The quality of a prescription reflects the competence of a physician and his attitude towards rational prescribing. These prescribing errors can also cause adverse effects. Error can arise from any step of prescribing such as the choice of drug, dose, route of administration and wrong frequency or duration of treatment. Inaccuracy in writing and poor legibility of handwriting or incomplete writing of a prescription can lead to misinterpretation, thus leading to errors in dispensing and administration. (3) These errors can be detected by systematic analysis of prescriptions through a prescription audit (5).

Audit was first used by Florence Nightingale in 1854 to prevent post surgical mortality. Prescription auditing is also an educational activity, and if regularly done, can aid in improving the prescription quality and thus enable the patient to receive high standard and best quality care (6).

A prescription audit was conducted among outpatient attendees of the government hospitals including Medical College and private hospitals/ clinics at Siliguri. The objectives of the audit were

1. Total number of prescriptions in various departments
2. Average number of drugs per prescription,
3. Various factors related to patient-age, sex, diagnosis
4. Frequency of use of antibiotic
5. Rationality of use of drugs-number of drugs, their combinations, duration

MATERIAL AND METHODS

The present study followed the prospective methodology The study was conducted by collection of prescriptions from government hospitals and private practitioners of different streams practicing at Siliguri. The study was carried out for a period of about one month in the month of June 2019. A total of 37558 prescriptions were randomly sampled. Details of all prescriptions were analysed on the following parameters:

Prescription format and its completeness with regards to: patient identifications (name, age, sex, weight, address) prescriber identification (name, department, hospital, registration number, physician initials) writing (start date, strength/dose/product formulation) dosing (under-dosing and overdosing) duration of treatment directions for administration follow up advice allergy status diagnosis

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WHO core prescribing indicators which includes (6) Average number of drugs per prescription – Fixed dose combinations were also counted as one drug Percentage of drugs prescribed by generic name Percentage of antibiotics per prescription Percentage of injections per prescription – vaccinations were excluded from this list

RESULTS

Table 1 Patient description

patient identifications	YES	NO
NAME	37558	0
AGE	37558	0
SEX	37558	0
.WEIGHT	25342	12216
ADDRESS	21551	16001

Table 2 Doctor description

prescriber identification	YES	NO
NAME	29132	8426
REGISRTATION NUMBER	32435	5123
HOSPITAL	36001	1557
DEPARTMENT	34112	3446
PHYSICIANS INITIALS	29982	7576

Table 3 Prescription writing

Prescription writing	YES	NO
Dose of drug	25138	12420
Dosing	37009	549
Duration of treatment	26779	10779
Direction of administration	19997	17561
Follow up	17880	19678
Allergic advice	463	37095
Diagnosis	31272	6286

Table 4 Average number of drugs per prescription

Average number of drugs per prescription –	1	2	3	4	5	6	7	MORE THAN 7
	1123	2395	23415	5531	560	2396	1566	572

The 92% drugs prescribed by generic name in government hospitals and 79.85% in private prescriptions.

Antibiotics were prescribed in 100% cases of infectious disease and even in 17% cases of non-infectious diseases. Inject able drugs are given only in 18% of prescriptions.

DISCUSSION

Providing the right medicine to the right people at the right time in right dose is a main priority of health care. The patient’s identifications (name, age, sex) were mentioned in almost every prescription to prevent interchange of prescriptions, weight was mentioned in about 32% cases mostly of paediatric prescriptions, as dose of drug is very specific in paediatric patients.

Address was written in 42% prescriptions, this is easy to identify the demographic distribution of diseases and drugs.

Prescriber’s identifications like name was written only in 22.4% cases, because in government hospital prescribers name is not written by computer. Only General OPD is mentioned in majority of the prescriptions as in government hospital patients were referred to different departments by General OPD. Registration number is not mentioned in them , as no fixed doctor attend OPD on a particular day though the days are fixed but still there is changes occurred time to time according to need of Hospital and doctors. It is not mentioned in

centralised ticket counter of OPD, the Registration No. is not written even in private practise prescriptions also. The initials of physicians were not mentioned in about 20%prescriptions, it seems because of some hasten.

The dose was not mentioned in 33% of prescriptions though dosing was mentioned in about 98% cases, it seems that dosing is more significant to doctors than dose, but the dose is also equally significant. It is very important to notice that advice for allergic reaction was significantly absent though it is very important to mention. Majority of the prescriptions have 3 drugs, then 4 and 2.

CONCLUSION

Irrational prescription in any aspect including patient’s identity, doctors identity or drugs dose or dosage forms leads to increase chances of mismanagement of patient’ care, adverse drug reactions and cost of treatment. Present study revealed that prescribing errors were common. In order to prevent these errors, here is a need to sensitize the prescribers for rational prescribing. As doctor: patient ratio is very poor so doctors are too burdened and some errors occurred in hastening. To reduce these, more practice of prescription writing is required during MBBS course, some seminars or sensitization programmes on rational prescription writing need to be emphasised.

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