Analysis of OPD Prescriptions according to World Health Organization (WHO) Prescribing Indicators in Delhi, India.

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Problem Statement

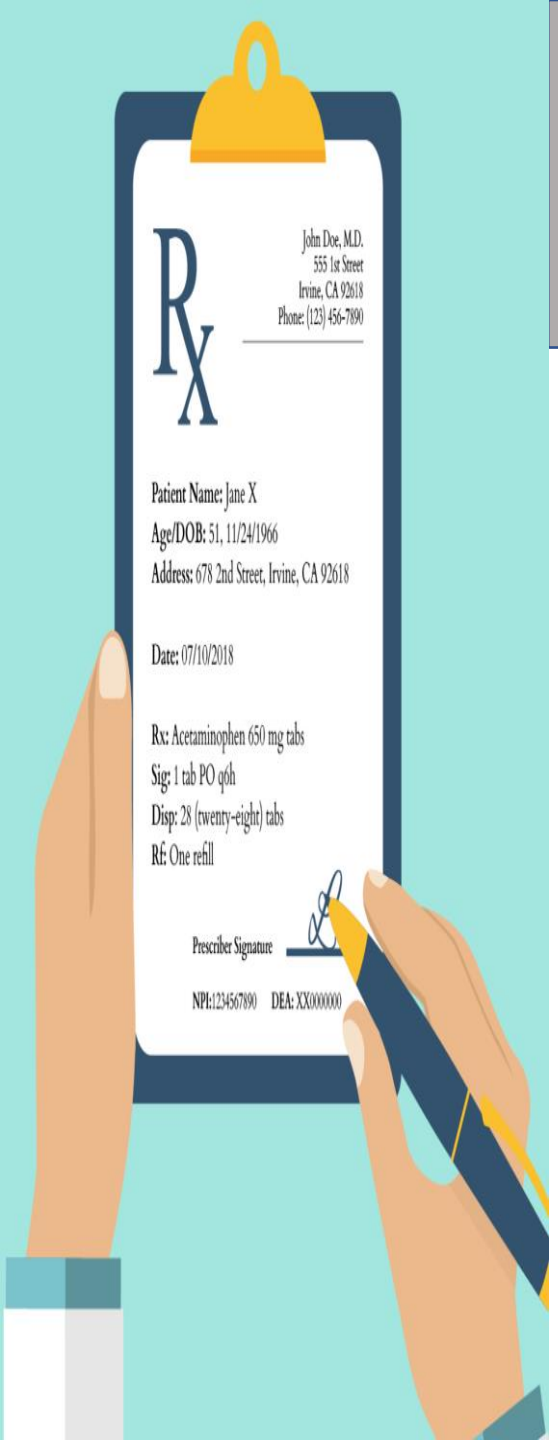
Prescribing of irrational medications to the patients.

Objectives

To promote rational drug use.

To assess the effectiveness of prescription pattern

To analyse the prescribing practices of physicians



INTRODUCTION

- The misuse of medicines is a global health issue, particularly in India. Irrational medications have a negative impact on both health and health-care spending.
- The World Health Organization (WHO) defined **rational use of drugs** when the patients receive medications fulfilling their clinical needs, in doses that meet their requirements, for an adequate period and at the lowest cost.
- The use of too many medicines per patient, is called **polypharmacy**, inappropriately using antimicrobials for nonbacterial infections, overuse of injections when oral formulations would be more appropriate.
- A more recent concern is the overuse of antibiotics, especially in the pediatric age group and in the outpatient setting.

- **Prescription auditing** is a useful method for improving the quality of prescriptions, improving the overall quality of health treatment.
- It is a tool for assessing the prescribing, dispensing and distribution of medicines. It provides i**nsight regarding the existing drug usage to ensure rational drug therapy.**
- The manufacture of pharmaceutical preparations in India is deformed, for the most part due to a lack of a clear, comprehensive, and sensible drug strategy.
- There are almost 70,000 formulations available in India, compared to approximately 350 formulations on the World Health Organization's (WHO) Essential Drug List. According to studies, the majority of prescriptions in India are for medications of "questionable efficacy."
- Assessment of OPD Prescriptions is done to spread awareness and promote rational drug use in emerging nations. It is now very important to utilise the data generated by so many prescriptions pattern monitoring studies, so that they can fulfil the main aim of rational use of drug.

METHODOLOGY

A study was carried out by collection prescriptions from hospitals and pharmacy stores in Delhi. All the prescriptions were analysed for general details, medical components, and WHO core drug use indicators. The data obtained were summed up and presented as descriptive statistics using the Microsoft Excel and were analysed.

PRESCRIBING INDICATORS MEASUREMENT

The formula adopted from the WHO's manual for the assessment prescribing indicators used in this study are as follows:

1. Average number of drugs per encounter = Total number of drugs prescribed/Total number of encounters sampled. (Combinations of drugs prescribed for one health problem were counted as one.

2. Percentage of drugs prescribed by generic name = (Number of drugs prescribed by generic name/ Total number of drugs prescribed) × 100.

3. Percentage of encounters with an antibiotic prescribed = (Number of patient encounters with an antibiotic/ Total number of encounters sampled) × 100.

4. Percentage of encounters with an injection prescribed = (Number of patient encounters with an injection prescribed/Total number of encounters sampled) × 100.

5. Percentage of drugs prescribed from essential drugs list = (Number of drugs prescribed from essential drugs list/Total number of prescribed drugs) × 100.

DATA ANALYSIS

All data in the data collection form were analysed using Microsoft Excel.

- 50 prescriptions were collected at various hospitals and medical stores in Delhi. The superscription part of the prescription like **name of the hospital, address of the hospital, doctor's name, patient name, date of prescription was mentioned in all (100%) prescription.**

- All the prescriptions did not consist of **gender, age and address of the patient.** This shows that the doctors are often making prescriptions without mentioning the gender, age and address of the patient. This is causing a lot of problems for the patients as they are unable to get the correct medication and are also facing a lot of inconvenience.

- It was noticed that **dose of drug** was not completely written in 40% of prescriptions e.g. 100 for 100 mg.

- It was noticed that **direction of use of drug** was not properly mentioned in 72% of prescriptions.

- It was also noticed that prescription **was signed by prescribing doctor in all (100%) prescriptions but their medical council registration no. was not mentioned in all (100%) the prescriptions.** It was observed that diagnosis was mentioned in 34% of prescriptions.

ANALYSIS OF DRUGS

Drug analysis revealed that antibiotics, analgesics, antacids and vitamins consumed 67% of the medication which was written by the Registered medical practitioner. Cough syrup and anti-diabetic drugs prescribed 6% and 16% of prescribed medications respectively. Some 26% of prescription drugs contained skin cream, anti-anginal, antihypertensive, lipid lowering agents, diuretics etc. Average number of drugs per encounter was , Percentage of drugs prescribed by generic name- 5%, Percentage of encounters with an antibiotic prescribed- 65%, Percentage of encounters with an injection prescribed-33%,

CONCLUSION

- The study revealed that prescription errors were common in private hospitals. Therefore, educating the prescribers to reduce prescribing errors through seminar, conference, workshop is required. There should be pharmacist and doctor’s joint training for decrease prescription errors.
- Mostly errors can be improved by using computerized prescription in hospital.
- Antibiotics and antacids were commonly prescribed drugs in the study and it may lead to drug resistance and increased health burden. Therefore, strict regulation of antibiotic policy in outdoor patients in private hospital is required with availability of antibiotic policy to each prescriber for better management of patients and increase rational use of antibiotics.
- The study indicates a need for setting guidelines by the policy making bodies which directs the prescription habits of all clinicians and Registered medical practitioners in India.
- The rules are defined and are available, but the practice is yet to change which is the sad part of the story. Unless strict enforcement of the guidelines happens with monitoring, and adherence by clinicians leading to better healthcare services, proper prescribing practices cannot be guaranteed in this part of India.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