

Adverse Drug Reactions: Misapprehension and its Consequences

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Drugs are like double-edged swords. Many patients know that drugs can cure diseases and disorders by producing therapeutic effects. Many patients are unaware of the unwanted, unintended, and noxious effects produced by medications. These effects are called as Adverse Drug Reactions (ADR).¹

After the Coronavirus Disease (COVID-19) pandemic, many people started storing medicines in their residence, both prescription and Over-the-Counter (OTC) medicines and engaged in self-prescribing and administering the medicines.

Exposure to various etiological factors made patients susceptible to primary and secondary diseases. Often, patients were prescribed with more than two medications. Patients also administer themselves with other complementary and alternative system of medicines like ayurvedic, and homeopathic medications. Further, this may lead to alterations in the pharmacokinetic and pharmacodynamic properties and leads to drug-related problems (DRPs). Paediatrics, geriatrics, and special populations are more vulnerable to DRPs.

In 1995, Brown University's long-term care quality statement stated that "any symptom in an elderly patient should be considered as a drug side effect until proven otherwise." The quote emphasizes the frequency of development of adverse drug reactions (ADRs) among the geriatric patients. Sometimes, healthcare professionals interpret these ADRs as new medical conditions or diseases and prescribe new medications to manage the conditions. This cascade effect with respect to drug prescribing is termed as 'prescribing cascade'.²

In 1995, Rochan and Gurwitz introduced a new word to medical sciences, i.e., 'prescribing cascade'. It means prescribing a new drug to treat ADRs. This series of prescriptions continues.³ Particularly prescribing cascades are common in elderly patients. In this situation, if healthcare providers like doctors, pharmacists, and nurses are provided with suitable education and training on

the identification, detection, and management of adverse drug reactions, it will be helpful to minimize unnecessary new drug prescribing and incidence of prescribing cascades.⁴

Prescribing cascades not only add new drugs to the treatment chart or prescription but also increase treatment costs and the probability of developing multiple drug-related problems.⁵

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As of today, only a few research studies are conducted related to the prescribing cascade. The new medical researchers can consider this as a major research gap and start working on it.

Through this letter, I request or appeal to the regulatory authorities of our country to organize a sensitization program related to the prescribing cascade and its consequences? Even each country's healthcare professional education board or council should incorporate the prescribing cascade into their course curriculum to attain rational drug therapy, especially among elderly patients.

Globally, prescribing cascade remains as one of the most serious drug-related problems. Prevention of prescribing cascades are possible only after thorough understanding of medications and its adverse drug reaction mechanisms.

CONCLUSION

Adverse drug reactions are misinterpreted as new medical conditions, and new medications are prescribed to treat them. Unnecessary prescribing cascades raise treatment costs, morbidity, and mortality. Prescribing cascades are one of the most advanced drug-related problems in this contemporary world. The health care professionals should be educated to minimize the incidence of these ADRs and prescribing cascades.

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CONFLICT OF INTEREST

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ABBREVIATIONS

DRP: Drug-Related Problems; **ADR:** Adverse Drug Reaction; **PC:** Prescribing Cascade; **COVID-19:** Corona Virus Disease; **OTC:** Over-The-Counter; **CME:** Continuous Medical Education; **CPD:** Continuous Professional Development; **CNE:** Continuous Nursing Education.

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