

Clinical Pharmacological Reconciliation, Review and Feedback in Ensuring Patient Safety

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May 4, 2023

Abstract

Medically qualified clinical pharmacologists specialise in drugs and their usage. Thus, a clinical pharmacologist should be involved in patient education, drug development, access and utilisation research, policy and procedure development, and safer medicine use. India has 5.2 million medication errors yearly, which are just a fraction of healthcare system incidents. Clinical pharmacological reconciliation, review, and feedback (CPRRF) is essential to reduce medication-related tragedies. Clinical pharmacologists can employ CPRRF principles to improve patient safety and efficacy. To improve patient safety, the World Health Organisation wants to integrate Clinical Pharmacology into the health care system. However, this is taking time. Policymakers should design and execute novel strategies to speed up this process.

Topic: Clinical Pharmacological Reconciliation, Review and Feedback in Ensuring Patient Safety – A Commentary

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Abstract:

A clinical pharmacologist in India is a medically qualified professional who has received formal training in clinical pharmacology. The curricular training helps in building critical knowledge and honing relevant expertise in areas revolving around medicines and their clinical use. A clinical pharmacologist is traditionally engaged in drug development research, in medicines access and utilization research, in developing policies and procedures for appropriate and safer use of medicines, and in professional and patient education for rational use of medicines.¹ Beyond the conventional role of a clinical pharmacologist, we propose an additional, presumably a more direct role in optimization of patient care. In the last one decade or so, this role is being explored and cultivated by some trained professionals. And the experience so far has been quite encouraging.

Here we describe a scheme of ten key strategies or activities regarding how clinical pharmacologists can apply their skills and can pro-actively ensure patient safety.

A research reports approximately 5.2 million medical errors to occur annually in India.² Recent studies estimate that medical errors in the United States are responsible for up to 251,000 fatalities annually, making them the third leading cause of mortality.³ To minimize adverse outcomes related to medicine use, and to maximize benefits, a ready-to-use intervention bundle of clinical pharmacological reconciliation, review and feedback (CPRRF) is proposed.

CPRRF consists of following strategies as:

1. Evaluating if the duly prescribed medicine is unnecessary or redundant, or no or a wrong medicine is prescribed for a given indication;
2. De-prescribing of medicines that are unnecessary or redundant or contraindicated or not well tolerated;
3. Identifying omissions and commissions during transition of care;
4. Tailoring the dose adjusting to the individual need and perspectives
5. Preventing, minimizing and managing adverse drug reactions (ADRs);
6. Improving treatment adherence;
7. Considering affordability and availability of medicines vis-à-vis adherence
8. Individualization of treatment accommodating patient factors;
9. Rationalising polypharmacy especially in the elderly;
10. Enhancing quality of life.

Clinical pharmacologists can play the above role in two ways: one, responding to drug-related-problem cases and extending referral services to other specialist practitioners; and second, allowing patients with suspected drug-related problems to directly reach out to them seeking relevant care. Further, some clinical pharmacologists may have interest in a specific clinical area, namely, hypertension, asthma, or diabetes. They can extend professional support in collaboration with clinical experts in the corresponding areas. Further, some of them with particular interest in toxicology, deal with drug overdose poisoning and their emergency management. De-addiction measures for habitual use of illicit drugs may be the interest area of others.

In outpatient clinics, clinical pharmacologists pre-emptively may monitor and supervise patients at higher risk of drug-related problems. Application of CPRRF principles by clinical pharmacologists can deliver optimum patient care and promote both safety as well as effectiveness of ongoing therapy. In elderly population polypharmacy, anticholinergic burden and cardiac autonomic neuropathy are important areas and we in our clinics, paid special attention to these areas and achieved better patient outcomes.^{4,5} We acknowledge that in reference to treatment success, patient reported outcomes matter more than physicians' global judgment about treatment benefit. Evaluating a prescription beyond its snapshot image and looking forward to capture the bigger picture of prescribing continuum are crucial. judicious de-prescribing is often beneficial and ensures prevention of prescribing cascades.^{6,7}

It is generally held that clinical pharmacologists should play a significant role in promoting prudent use of medicines. The World Health Organization has emphasized the need to integrating clinical pharmacology with the health service system.⁸ It seems we still have a long way to go to make this a reality.⁹ Application of CPRRF principles in different sub-specialty domains is a need of the hour and clinical pharmacologists can play a significant role.

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