Editorial

Medication Errors: What could a Clinician do?

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Whenever people are sick, they visit to doctor in the hope of getting better. Doctor prescribes medications to cure and ease the patient's sufferings. But errors may occur during medication use process which may pose additional patient sufferings. In simply, medication errors (MEs) are defined as "a failure in the treatment process that leads to, or has the potential to lead to, harm to the patient[1]." Errors can occur during choosing a medicine (e.g. irrational, inappropriate and ineffective prescribing, under and over prescribing), writing the prescription (prescription errors including illegibility), manufacturing of a formulation (adulteration, wrong or misleading packaging), dispensing medicines (wrong label, wrong drug, etc.), medicine administration (wrong frequency, wrong route etc.) etc[2]. They account for more than half of the preventable harms globally[3].

The term MEs drew enhanced attention after the publication of "To Err is Human: Building a Safer Health System" by the USA's Institute of Medicine (IOM). That book broke the then silence around MEs. Since then different national, regional and global health agencies started to come forward to identify and prevent this issue. Based on the theme "medication without harm", World Health Organization (WHO) took initiative to reduce 50% of MEs by 2022. More than 25,000 articles have been published between 2000 to date. About 98,000 people die from MEs in the USA in a given year which above the deaths due to accidents, breast cancer and AIDS[4]. According to WHO, about 42 billion US dollar is spent globally per year to solve the problems associated with MEs[5].

MEs may lead to adverse drug event (ADE) and usually reported through Pharmacovigilance system of a country. In 2014, Bangladesh became 120th member of WHO Programme for International Drug Monitoring (WHO-PIDM) and Directorate General of Drug Administration (DGDA) established ADE and medication error reporting system in Bangladesh[6]. Since then health care professionals or consumers are encouraged to report ADE and MEs to DGDA by online, mail, even by telephone (if needed). However, the system is passing its infancy with limited number of ADE reports (e.g. from 2017 to June/2021, total 3,257 ADE were reported)[7]. Lack of knowledge and training is the main causes of fewer number of ADE reporting. However, DGDA is providing continuous efforts to increase the number of reports.

One can easily imagine the magnitude of MEs related problems in Bangladesh. In Bangladesh, the healthcare system is running in a disharmonized way. Clinicians are overburdened for so many patients. The clinician has to see a lot of patients quickly due to time constraint and staff shortages. Human factors such as fatigue and poor work condition are the main causes of MEs. In addition, there are scarcities of qualified pharmacists in retail and rural pharmacies who can instruct the patients properly. Considering these vulnerability, we can say Bangladesh has a huge burden of MEs. Some of them noticed however majority remain unnoticed and sometimes unrecognized. This situation underscores MEs as one of the topmost priority areas of conducting research in Bangladesh. Besides this, the knowledgebase as well as the skills for detection of MEs should be increased so that the physicians can detect and report the errors.

The role of Bangladeshi clinicians in preventing MEs is multifaceted. Firstly, they have the expertise to evaluate a patient's medical history, conditions, and potential

contraindications before prescribing a medication. Their clinical judgment is essential in identifying any factors that might lead to errors. Secondly, they have to communicate effectively with the patients and pharmacists to prevent misunderstandings. In addition, they must educate patients about their medications, give proper instruction and warning about potential adverse effects and make a therapeutic alliance with patients. If possible e-prescriptions should be used. It will not only provide the clear instructions but also provide legible medicine name. Thirdly, they must stay updated with the latest medical guidelines, drug interactions, and advancements in pharmaceuticals. Fourthly, they must produce a collaborative environment among pharmacists and nurses to detect potential errors before they reach the patient. Finally they have to report MEs which will help to analyze the root causes and doing so they will be participating in further improvement to prevent future errors.

Medication error is an important cause of morbidity and mortality, yet it can be a confusing and underappreciated concept. Role of clinicians in mitigating MEs is absolutely critical. As the gatekeepers of medication-related decisions, prescribers have a duty to exercise their expertise, communicate effectively, and contribute to a culture of safety within healthcare systems. By doing so, they can substantially reduce the occurrence of MEs and improving the overall quality of care.

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