Errors in Medicine

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Introduction

Medical errors are among the third leading causes of mortality in the United States and represent a significant public health issue (Rodziewicz et al., 2024). The Institute of Medicine (IOM) Committee characterizes a medical error as "the failure of a planned action to be executed as intended or the application of an incorrect plan to attain a goal" in the United States (Rodziewicz et al., 2024, para. 4). Medication error injury affects one in every 30 patients in the healthcare sector (World Health Organization [WHO], 2023). Between 5% and 41.3% of all hospital admissions and 22% of all readmissions after discharge are attributed to medication-related mistakes worldwide (Tariq et al., 2024).

Medical errors could inevitably lead to a significant increase in mortality, morbidity, and economic burden, which could have a negative impact on both the patient and the health care facility as a whole (Rodziewicz et al., 2024). It is an unavoidable reality that medications are responsible for half of the avoidable harm in healthcare (WHO, 2023). Surgical errors, diagnostic inaccuracies, medication errors, equipment malfunctions, patient falls, hospital-acquired infections, and difficulties with communication constitute the most frequent types of medical errors (Rodziewicz et al., 2024).

In addressing medication errors, it is essential to acknowledge that routine administration of drugs can lead to adverse drug responses or side effects, resulting in negative consequences (Health Canada, 2011). The adverse events comprise a diverse array of scenarios, such as the administration of the incorrect dosage or type of medication and the presence of extraneous objects in the body following surgery (Gagnon, 2004). Gagnon (2004) reported that 1 in every 6667 surgical patients had a foreign object left in their body, and 1 in 9 adults with health issues reported that a health professional or hospital administered the incorrect medication or dosage.

Causes and contributing factors

There are many opportunities for medical errors from the doctor's office to the patient's home. In any single patient safety incident, there are typically multiple and interrelated factors that can result in patient harm, including organizational factors, technological factors, human factors, patient-related factors, and external factors (WHO, 2023). A single institution cannot resolve the problem of medical errors; it is a global issue.

Errors in medicine may occur as a result of patients' decreased likelihood of adhering to their prescribed medications (Jimmy & Jose, 2011). The patient's limited understanding of the medication and how to use it correctly, doubts about whether the treatment is needed, worries about side effects, the difficulty of managing long-term medications that require taking several drugs at different times, and issues with cost and access all make it hard for them to use their medications effectively (Jimmy & Jose, 2011).The degree of non-adherence is highly variable, with reports of as low as 10% and as high as 92% in various investigations (Jimmy & Jose, 2011).

Additionally, miscommunication between the healthcare provider and the patient would also undoubtedly exacerbate medical error. Dr. Beigi underscores the importance of providing providers with comprehensive information, including all medical, medication, and travel histories, to reduce errors (Blissy, 2024). He posits that communication is the key to reducing errors, which in turn enhances the efficacy of the treatment (Blissy, 2024). Moreover, the patient's capacity to comprehend and read medication instructions is a significant factor that influences adherence (Jimmy & Jose, 2011). Patients with low health literacy may encounter challenges comprehending instructions, which ultimately leads to inadequate medication management and decreased adherence (Jimmy & Jose, 2011). Moreover, the primary contributors to pharmacy-related medication errors include excessive workload, interruptions, inadequate time for patient counselling, insufficient support staff, identical drug terminology, and illegible handwriting (Rodziewicz et al., 2024).

Consequences

Medication errors lead to numerous unfavourable consequences, such as increased hospital admissions, more outpatient visits, extended hospital stays, higher patient management expenses, and an increased risk of patient mortality (Tariq et al., 2024). Many people could develop chronic conditions as a result of the adverse effects, leading to long-lasting emotional and physical strain (Tariq et al., 2024).

In addition to impacting patients and their families, medication errors may induce emotions such as self-doubt, shame, and remorse, which can result in suicidal tendencies in certain healthcare professionals (Tariq et al., 2024). Such an outcome would undoubtedly affect the trust that patients and the community have in health care professionals.

Strategies to Reduce Medication Errors

In a dynamic environment with numerous variables, healthcare delivery necessitates the ability to make rapid, critical decisions (Tariq et al., 2024). Identifying the specific causes of medication errors that may affect each patient and practitioner could mitigate the issue to a certain extent.

In spite of the potential repercussions, the key to effective treatment strategies is the promotion of error reporting by healthcare facilities (Rodziewicz et al., 2024). Facilities should begin to implement a patient safety workplace culture by incorporating confidential reporting systems and embracing the changes to overcome this fear (Rodziewicz et al., 2024; Tariq et al., 2024).

The implementation of a computerized medication order entry system would eliminate the need for paper systems, allowing healthcare practitioners and patients to view real-time updates and modifications without any obstructions (Tariq et al., 2024). It is without a doubt that this is one of the most effective singular strategies for reducing medication errors (Tariq et al., 2024).

To mitigate pharmacy errors, pharmacists must devote time to patients to ensure that they comprehend the drug dose, route, and frequency, as well as to examine any potential drug interactions and drug allergies (Tariq et al., 2024). Additionally, the implementation of automated medication dispensing systems at nursing stations by nurses could contribute to the reduction of errors (Tariq et al., 2024).

Conclusion

Medication errors significantly contribute to prolonged hospital stays and health burdens and are among the most prevalent causes of mortality worldwide. Medication errors may arise at any phase of the procedure, from prescription to administration, due to reasons such as miscommunication, lack of patient education, or system failures. Additionally, these errors may have a financial, emotional, and physical impact on healthcare professionals and patients. Healthcare professionals can enhance patient safety through collaboration by identifying the factors and events that contribute to medical errors, educating patients, implementing automated medication dispensing systems, and using computerized medication order entry systems at various levels of healthcare (Rodziewicz et al., 2024).

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