# Errors in Treatment

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## Introduction

A medication or treatment error is an unintended failure in the drug treatment process that produces or has the potential to produce damage to the patient (European Medicines Agency [EMA], 2015). The most prevalent preventable causes of undesired adverse events in medication practice and a significant public health burden are errors in the prescribing, dispensing, storing, preparation, and administration of a medicine (EMA, 2015). Inadequate skill can directly lead to patient harm and mortality, while communication breakdowns, diagnostic errors, and poor judgment are always a byproduct of treatment errors (Makary & Daniel, 2016). Dr. Beigi, founder of Misdiagnosis Association and Research Institute (MARI), emphasizes that the errors that happen in health care make patients suffer from adverse effects, thereby causing poor treatment outcomes (Blissy, 2024).

## Causes of Treatment Errors

Medication-related errors are accountable for 5% to 41.3% of all hospital admissions and 22% of readmissions after discharge on a global scale (Tariq et al., 2024). The prevalence of medication errors is 30% higher in patients who are prescribed five or more medicines and 38% higher in those who are 75 years of age or older (Tariq et al., 2024). Medication errors are most frequently encountered during the prescribing, procuring, and administration phases (Tariq et al., 2024). Nearly 50% of all medication errors occur when a medication is prescribed or ordered (Tariq et al., 2024).

There are numerous components associated with patient medications/treatment, including prescribing, dispensing, dosage, and administering; errors may occur in any of these areas. However, many medication errors are considered preventable. Rodziewicz et al (2024) have identified several common medication errors, such as the misuse of medication-use safeguards, the misadministration of a medication that appears to be similar, and the use of outdated medications. Additionally, the administration of the medication may result in a higher frequency of treatment errors (Jimmy & Jose, 2011). These errors are consistently associated with medication adherence (Jimmy & Jose, 2011). Nonadherence is a prevalent occurrence among all patients who exhibit drug-taking behaviour (Jimmy & Jose, 2011). Barriers to using medicines effectively include miscommunication between doctors and patients, not knowing enough about a drug and how to use it, doubting the need for treatment, being afraid of side effects, having to take

medicine for a long time, dealing with complicated schedules for taking multiple medications, and issues with cost and access (Jimmy & Jose, 2011). Furthermore, lack of practical experience renders healthcare practitioners ineffective, potentially leading to treatment errors (Jimmy & Jose, 2011).

## Consequences

Medication errors contribute to various adverse outcomes, including more hospital admissions, increased outpatient visits, protracted hospital stays, elevated patient management costs, and heightened patient mortality risk (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). The prospect of impending legal action may exacerbate the profound psychological effects that healthcare professionals may experience as a result of actual or perceived errors, including anger, guilt, inadequacy, depression, and suicidal ideation (Rodziewicz et al., 2024). Clinicians may also associate errors with failure, a breach of public trust, and patient injury, despite their obligation to avoid causing harm (Rodziewicz et al., 2024). Such behaviours can result in a decline in clinical confidence (Rodziewicz et al., 2024). Additionally, surgical errors frequently render patients' lives more difficult and, on occasion, incur fatalities. (Rodziewicz et al., 2024) For instance, a minor injury to any nerve during surgery, such as a bladder nerve during anus reconstruction surgery, could impede the patient's ability to urinate in a typical manner (Rodziewicz et al., 2024).

## Implications for Practice

No single method exists to eradicate all medication errors, but healthcare professionals can reduce them by increasing vigilance and nurturing close collaboration with fellow clinicians, pharmacists, and patients. Open and direct communication is one approach to bridging the safety divide and lowering the rate of medication errors (Tariq et al., 2024). Effective communication ensures all relevant information is available to all healthcare professionals involved in care delivery (Tariq et al., 2024).

Moreover, a system for confidential reporting of medication errors can lead to the future detection of the possibility of a medication error occurring (Mutair et al., 2021). Voluntary reporting is advantageous for medical learning and promotes a culture of safety (Mutair et al., 2021). On the other hand, mandatory reporting systems have demonstrated the effectiveness of participation in reporting medical errors (Mutair et al., 2021). For example, in Denmark, the reporting rate is 50%, compared to just 1% in Australia, where reporting is voluntary (Mutair et al., 2021). The most effective method for reducing medication errors is the use of computerized systems for physician order entry (Tariq et al., 2024). Computerized physician order entry systems take the place of paper ordering systems, enabling healthcare providers to maintain an online record of medication

administration and see changes made to orders by other staff in real-time (Tariq et al., 2024).

Additionally, medication review and reconciliation can reduce the frequency of common medication errors, particularly in hospitals (Tariq et al., 2024). Medication reconciliation is the process of compiling a comprehensive list of the medications that have been prescribed to the patient and are presently being taken (Tariq et al., 2024). Lastly, the elimination of medication and surgical treatment errors would be achieved by providing healthcare practitioners with appropriate practical training (Tariq et al., 2024).

## Conclusion

Treatment errors are a component of medical errors that frequently result in patient injury due to miscommunication, incorrect administration, or poor clinical judgment. Dr. Beigi underscores the negative health consequences associated with treatment errors. Treatment-related errors are largely preventable; however, they primarily impact geriatric and polypharmacy patients during the prescribing and administration phases. The primary strategies for reducing treatment errors include the following: enhancing communication, encouraging medical reporting, implementing a computerized physician order entry system, and providing practical training.

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