

Gap between medication errors and drug knowledge in clinical practice of nurses in intensive care units.

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Abstract

Inappropriate diagnosis, prescribing errors, dose miscalculations, poor drug distribution procedures, drug and drug device related difficulties, incorrect drug administration, failed communication, and a lack of patient education are all common causes of medication error. It is critical to remember that pharmaceutical errors can cause patient morbidity and even death. Furthermore, these errors might harm a healthcare facility's reputation and result in expensive institutional and public expenses. Medication mistakes (having an unnecessary drug, a non-optimal drug, or a non-optimal dose) become more likely as the number of drugs, comorbidities, multiple prescribers, and age grow.

Keywords: Intensive care units, Emergency care units, ICU, Medication errors, Nursing, Drug knowledge.

Introduction

Medication errors are a severe and difficult problem in clinical practice, particularly in intensive care units, where patients can suffer potentially fatal outcomes due to the critical nature of their diseases and the pharmacotherapy regimens in place. The causes of these errors mentioned in the literature are diverse, but far-reaching variables are of particular relevance to those working in nursing education. The primary goal of this study was to see if critical-care nurses' degree of expertise regarding drug use and administration is connected to the most prevalent medication mistakes. Nurses have a low degree of understanding about the pharmaceuticals they use the most and where the majority of medication errors occur in the ICU [1].

Underlying system issues have been identified as significant contributors to drug mistakes. Understanding the causes of these errors allows us to plan and implement the most effective treatments to reduce their occurrence. To find acceptable papers, inclusion and exclusion criteria were used, followed by abstract and full text evaluation. There were English language articles that reported empirical data on the causes of MAEs. Causes were frequently explained superficially; this might be attributed to the use of quantitative surveys and observation methods in many researches, the limited use of known error causation frameworks to analyse data, and an emphasis on concerns [2].

The relevance of drug errors, recognising potential concerns and support mechanisms required medication errors affect a variety of health professionals and occur at various points of the medication cycle. It is critical to emphasise the

collaborative approach and the involvement of the nurse. When several illnesses and medications enhance the risk of adverse drug responses, special populations, particularly older persons, are examined. Nurses' accountability and medication knowledge are considered, as is the role of nurse educators. Reporting errors is critical; the culture of the organisation has a big impact on whether errors are reported. Learning occurs as a result of near misses and errors, allowing for the implementation of preventive measures. There is a need for a safety culture within organisations where drug governance supports patient safety and high-quality care [3].

To comprehend medication errors and devise preventive measures, we must first classify them and establish the phrases that describe them. The four major techniques to technical word definition take into account etymology, usage, previous definitions, and the Ramsey-Lewis method (based on an understanding of theory and practice). A medication error is a failure in the treatment process that leads to, or has the potential to lead to, harm to the patient. Prescription errors should be separated from prescribing errors, which are a subset of pharmaceutical errors. A prescribing fault is a failing in the prescribing process that leads to, or has the potential to lead to, harm to the patient. The inverse of this is balanced prescription, which is defined as the use of a medicine that is suited to the patient's condition and, within the boundaries generated by the uncertainty that attends therapeutic decisions, in a dose regimen that maximises the balance of benefit to harm. This includes all types of prescribing errors, including unreasonable, inappropriate, and ineffective prescribing, as well as under- and over-prescribing. A prescription error is a failure in the prescription writing process that leads in

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a false instruction about one or more of the normal aspects of a prescription. The normal aspects include the recipient's identification, the drug's identity, the formulation, dose, route, time, frequency, and length of administration. Using psychological theory, medication errors can be characterised as knowledge-based errors, rule-based errors, action-based slips, and memory-based lapses. This classification helps to guide prevention strategies [4].

In hospitalised patients, medication errors are a major source of illness and mortality. This provides an obligation to eliminate pharmaceutical errors in order to provide patients with safe and ethical care. Nursing prescription errors are caused by a variety of circumstances, including both individual and systemic difficulties. These include medication reconciliation, the types of drug distribution systems, prescription quality, and deviation from protocols such as interruptions during administration, excessive workloads, and nursing medication expertise. Managers must undertake initiatives to prevent pharmaceutical errors, such as the implementation of reporting mechanisms at the international and national levels, as well as the review and audit of practice at the local level [5].

Systematic approaches to medication reconciliation can also dramatically reduce medication error. Promoting consistency among health care providers as to what constitutes a medication

error will lead to better accuracy and compliance in reporting medication errors, informing health care policies focused at minimising medication errors [5].

Conclusion

This research presents the findings of an empirical literature review on the factors that contribute to medication mistakes. The acquisition and maintenance of mathematical competency for nurses in practice is an important aspect of medication mistake prevention. In the prevention and management of system mistakes, the health care business can learn from other high-risk industries such as aviation.

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