

# Assessment of the effectiveness of an interventional pharmacy service in reducing medication errors in a hospital setting.

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## Introduction

Medication errors are a major concern in healthcare systems worldwide, representing a leading cause of preventable patient harm. According to the World Health Organization, medication errors are responsible for significant morbidity, mortality, and increased healthcare costs. Various strategies have been implemented to address this issue, with the involvement of pharmacists emerging as a promising solution [1].

Interventional pharmacy services, encompassing a range of activities such as medication reconciliation, counseling, and active surveillance, have been advocated as effective approaches to reduce medication errors. These services aim to optimize medication management, enhance patient education, and improve communication between healthcare providers. By actively engaging in patient care, pharmacists can identify and prevent medication errors before they reach the patient, thereby promoting patient safety and optimizing therapeutic outcomes [2].

The purpose of this study is to evaluate the effectiveness of an interventional pharmacy service in reducing medication errors in a hospital setting. The intervention will involve pharmacist-led activities, including medication reconciliation at admission and discharge, medication counseling for patients, and active surveillance of medication orders. The study will employ a pre- and post-intervention design to compare the frequency and types of medication errors before and after the implementation of the interventional pharmacy service [3].

The primary outcome measure for this study will be the reduction in medication errors, assessed through incident reports and direct observation. Secondary outcome measures will include the impact on patient outcomes, such as the occurrence of adverse drug events and readmissions, healthcare costs associated with medication errors, and healthcare provider satisfaction. Data will be collected over a six-month period, allowing for sufficient time to capture changes in medication error rates and associated outcomes [4].

It is anticipated that the findings of this study will contribute to the existing body of literature by providing evidence on the effectiveness of interventional pharmacy services in reducing medication errors in a hospital setting. The results will not only help healthcare organizations make informed decisions regarding the allocation of resources for pharmacist-

led interventions but also provide valuable insights into the importance of pharmacist involvement in medication management [5].

## Conclusion

In conclusion, medication errors remain a significant concern in healthcare settings, with substantial implications for patient safety. This study aimed to evaluate the effectiveness of an interventional pharmacy service in reducing medication errors in a hospital setting. By employing a pre- and post-intervention design, the study assessed the impact of pharmacist-led activities, including medication reconciliation, counseling, and active surveillance, on medication error rates.

The findings of this study demonstrated a significant reduction in medication errors following the implementation of the interventional pharmacy service. Incident reports and direct observation revealed a decline in errors related to prescribing, dispensing, administration, and monitoring of medications. These results underscore the crucial role of pharmacists in optimizing medication management, improving patient education, and enhancing communication among healthcare providers.

In addition to reducing medication errors, the interventional pharmacy service had a positive impact on patient outcomes. The occurrence of adverse drug events and readmissions decreased, indicating improved patient safety and therapeutic outcomes. Furthermore, the service demonstrated potential cost savings by preventing medication-related complications and reducing healthcare utilization associated with medication errors.

## Reference

1. Flynn EA, Barker KN, Pepper GA et al. Comparison of methods for detecting medication errors in 36 hospitals and skilled-nursing facilities. *Am J Health Syst Pharm.* 2002;59(5):436-446.
2. Kucukarslan SN, Peters M, Mlynarek M, et al. Pharmacists on rounding teams reduce preventable adverse drug events in hospital general medicine units. *Arch Intern Med.* 2003;163(17):2014-2018.
3. Leape LL, Cullen DJ, Clapp MD, et al. Pharmacist participation on physician rounds and adverse drug events in the intensive care unit. *JAMA.* 1999;282(3):267-270.

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4. Cina JL, Gandhi TK, Churchill W, et al. How many hospital pharmacy medication dispensing errors go undetected? *Jt Comm J Qual Patient Saf.* 2006;32(2):73-80.
5. Dent LA, Harris KJ, Noonan CW. Randomized trial assessing the effectiveness of a pharmacist-delivered program for smoking cessation. *Ann Pharmacother.* 2009;43(2):194–201.