



---

## **Medication Errors in Paediatric Inpatient Settings: A Narrative Review**

W.P.K.H. Subasinghe, V.M. Pathiraja, G.A.M. Prasadi \*

*Department of Pharmacy, Faculty of Allied Health Sciences, University of Ruhuna*

\*Corresponding author: *maneeshaprasadi@ahs.ruh.ac.lk*

### **ABSTRACT**

Children are particularly susceptible to experiencing a medication error (ME) because they vary in weight, body surface area and which can affect their ability to metabolise and excrete medications effectively. It may occur any of the paediatric healthcare facilities resulting from no harm or even associated with very serious outcomes and may lead to even death. In order to improve medication safety, MEs and practices which potentially contribute to medication errors must be explored. The aim of this study was to review published studies regarding MEs among hospitalized paediatric patients. A search of studies published from 2011 to 2021 related to MEs in paediatric inpatients was performed using two databases: PubMed and Google Scholar. Seventeen articles were identified from data extraction. MEs were detected by incident reporting, chart review, observations, by attending ward rounds, interview of children/parents and by asking with paediatric ward staff. Prescribing errors, dispensing errors and administration errors were reported from studies. MEs were associated with wide varieties of medicines including antibiotics, narcotic analgesics, digoxin, anticoagulants, analgesics, chemotherapeutic agents, sedatives and hypnotics and anaesthetics. Many studies have reported prescribing errors in paediatrics rather than administration, transcribing and monitoring errors. Performance deficit and knowledge deficits were responsible for most of MEs. Errors were reported related to dispensing, prescribing and medication administration. Medication errors associated with different types of medications including high alert medications. Hence it is important to implement medication safety practices in hospital setting to prevent potential MEs such as a computerized physician order entry system, clinical decision-support systems, ward-based clinical pharmacists, and improved communication among physicians, nurses, and pharmacists.

**Keywords:** *Children, Hospital, Inpatient, Medication errors, Paediatric*