



**Service Priorities and Programmes**  
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**Evidence-based Practice on Measures to Minimize Medication Administration Error in Hospital**

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**Introduction**

Medication error received considerable attention among healthcare professions because of its substantial mortality, morbidity, and additional health care costs. Nurses act as a vital profession to safeguard on the process of medication administration to prevent medication incidents. However, administration error of medication is all along the second most types of common medication error in recent years. The self-reporting with the Advanced Incidents Reporting System (AIRS), Hospital Authority guidelines on medication management, and technologies support have been initiated to minimize administration error of medication. Apart from these preventive measures, there are other feasible and substantial methods suggested in many international literatures that can be worth well utilized.

**Objectives**

This study has recommended reviewing the best available evidence relating to measures to avoid administration error of medication in hospital. The recommended practices aim to serve as a guide for nurses to ensure safe and appropriate practices. Nurses are advised to assess the appropriateness of the recommendations with regards to individual unit practice, overall measures goal, resource availability, departmental / hospital policies and organizations' options when applying any recommendation to clinical practice.

**Methodology**

The recommended evidence-based practices (EBP) are based on a comprehensive review of available evidence up to 2012. The author conducted a literature search of Medline and Science Direct databases, Internet search by Google engine to identify research studies, and systemic reviews published in English from 2006 to 2012. All references within relevant papers were further investigated for additional studies. For the definition of the strength of evidence and the grading of recommendations in the recommended practices, the study referred to the criteria modified and used by the Scottish Intercollegiate Guidelines Network (SIGN).

**Result**

Different aspects of measures with relevant evidence supported are recommended to implement in the preparation of drug, safe practice to administer medication, education and others for internal factors to medication errors whereas to implement in the patient involvement, technology, external parties-assisted and environmental aspects for external factors to medication errors. Some recommended practices such as double-checking and education have all along implemented in our hospital but regarding the process of these practices, there is room for improvement in future. Other practices such as upholding of nursing calculation competence and reduction of interruption or distraction may direct nurses to develop more innovative ideas to minimize the administration error of medication. Various measures suggested in literatures have been reviewed. Nurses may take this EBP review as a reference to guide nurses and modify some measures for local use.