

GUIDELINE FOR MEDICATION SAFETY

The Guideline for Medication Safety has been approved by the AORN Recommended Practices Advisory Board. It was presented as proposed recommendations for comments by members and others. The guideline is effective December 1, 2011. The recommendations in this guideline are intended to be achievable and represent what is believed to be an optimal level of practice. Policies and procedures will reflect variations in practice settings and/or clinical situations that determine the degree to which the guideline can be implemented. AORN recognizes the various settings in which perioperative nurses practice; therefore this guideline is adaptable to various practice settings. These practice settings include traditional operating rooms (ORs), ambulatory surgery centers, physicians' offices, cardiac catheterization laboratories, endoscopy suites, radiology departments, and all other areas where operative and other invasive procedures may be performed.

Purpose

This document provides guidance to perioperative RNs to develop, implement, and evaluate safe medication management practices specific to the perioperative setting. Evidence-based approaches to medication safety in perioperative settings are not well established; therefore, guidance emerges from broad knowledge of adverse events and strategies to prevent medication errors identified in other settings.¹⁻³ Medication errors may go undetected, but when they are reported, the sources of the errors are multidisciplinary and multifactorial. Results of medication errors can include substantial threats to patients, increased health care costs, and compromised patient confidence in the health care system.^{4,5}

Awareness of medication errors increased after the 1999 Institute of Medicine report *To Err Is Human: Building a Better Health System* stated that "medication errors account for one out of 131 outpatient deaths and one out of 854 inpatient deaths."⁶ Since that time, the Joint Commission's *Sentinel Event Alert* reports have indicated that medication errors resulting in death or permanent loss of function continue to occur each year.⁷

The recommendations that follow are consistent with the six phases of the medication use process, including procuring, prescribing, transcribing, dispensing, administering, and monitoring.⁴ Medication errors can originate at any point in the medication use process and affect patients of all ages. Perioperative settings present additional challenges for safe medication practices. Factors affecting the medication process in the perioperative environment include, but are not limited to,

- the aseptic transfer of medications onto the sterile field,
- the presence of an intermediary who is in sterile attire to receive and transfer dispensed medications to the licensed independent practitioner who is in sterile attire (eg, surgeon),
- time-sensitive conditions, and
- sensory distractions intrinsic to the environment.

Potential risks associated with medication errors in the perioperative setting include, but are not limited to,

- inconsistent communication of current and previous medication regimens (ie, medication reconciliation);
- confusion in the medication order (eg, name, strength, dose) caused by muffled verbal orders delivered through surgical masks;
- incomplete, ambiguous, incorrect, or illegible written or spoken orders;
- inaccurate, illegible, or outdated surgical preference cards;
- medication that is removed from the original manufacturer's packaging to aseptically deliver contents onto the sterile field;
- allied health professionals in sterile attire who receive medications onto the sterile field having limited knowledge of medications;
- inconsistent labeling of medications on and off the sterile field;
- medication dispensed to the sterile field that may be handled by multiple individuals before reaching the licensed individual administering the medication;
- medication preparations without a pharmacist in the setting to perform or oversee the preparation or provide consultation;
- high-alert medications that are available in multiple dose forms and concentrations;
- look-alike and sound-alike medications stored in close proximity;
- patient care complexity that requires rapid perioperative interventions;
- extended work hours leading to health care worker fatigue;
- care provided by multiple health care providers simultaneously;
- multiple patient hand offs between care providers; and
- misuse or failure of medical devices used to store, dispense, or administer medications.

Safe medication practices require open, honest, and clear communication throughout the medication use process and the perioperative continuum of care. The following recommendations for perioperative settings are consistent with established professional

