



## **AORN Guidance Statement—Safe Medication Practices in Perioperative Practice Settings**

Recognizing the potential magnitude and seriousness of medication errors in the OR and other perioperative settings, AORN has developed a guidance statement to help clinicians develop and implement policies and procedures related to safe medication practices in the OR and other areas where operative and other invasive procedures may be performed. This document was developed collaboratively by the Research Department and the Center for Nursing Practice at AORN and approved by the AORN Board of Directors.

Preamble. The purpose of this guidance statement is to provide a framework from which practitioners can develop and implement policies and procedures for safe medication management and administration in perioperative practice settings. These settings include traditional ORs, ambulatory surgery units, physicians' offices, cardiac catheterization suites, endoscopy suites, radiology departments, and all other areas where operative and other invasive procedures may be performed. In this document, the term OR is meant to be inclusive of all perioperative practice settings.

A sample protocol is presented with the understanding that it ultimately is a facility's responsibility to develop and implement defined practice protocols specific to its individual practice setting. Information regarding safe medication practice is evolving through national research initiatives. Practitioners should review new information as it becomes available and use it to develop, evaluate, and revise their policies and procedures for safe medication use in the OR. The health care facility should develop an organizational philosophy toward medication errors from a viewpoint of "systems failures" and of seeking "systems solutions" to prevent these errors.

### **GUIDANCE STATEMENT**

Health care facilities should identify in policy which people and/or job categories may participate in medication management and administration. Facility policy for safe medication practice should be based on the five "rights" of medication usage, including

- \* the right patient,
- \* the right medication,
- \* the right dose,
- \* the right time, and
- \* the right route.

Facility policy should define responsibility for questioning any medication order not thought to be appropriate.

Health care facilities should develop standardized procedures for safe medication practices in the OR. Elements of safe medication practices should include, but not be limited to, specification of methods for

- \* verifying medication labels;
- \* delivering medications to the sterile field;
- \* labeling medications on and off the sterile field;
- \* confirming labeled medications on the field; and
- \* communicating medication, strength, and dosage as the medication is passed to the person who will administer the medication.

All original medication/solution containers and delivery devices should remain available for reference in the OR until the conclusion of the procedure.

### RISK REDUCTION STRATEGIES

- \* Health care facilities should provide OR personnel with appropriate and timely education related to medication safety procedures. Facilities should implement processes for validating competency on a regular basis.
- \* Procedures should be developed for reporting and responding to medication errors and near misses, as well as reviewing trends with a focus on error reduction instead of punishment.
- \* Work schedule requirements in surgical settings should be modified to minimize the risk of fatigue-induced errors.
- \* Constraints or forcing functions should be used to minimize risks related to medication management and administration. Constraints are approaches that make a medication error difficult. Examples of constraints include dose limit protocols, automatic stop orders, triple checking medications, and labeling all medication containers in the OR. Forcing functions are approaches that make a medication error impossible. Examples of forcing functions include removing certain medications (eg, cytotoxic agents, concentrations of saline above 0.9%) from the OR.
- \* Automatic medication processes and dosage calculations should be used when possible.
- \* Medications should be stored safely.
- \* Current and reliable medication reference materials should be readily available to the practitioner in the OR.
- \* Manufacturers should be encouraged to use distinctive labels for medications and solutions used in health care.
- \* Manufacturers should be encouraged to provide medications and solutions in ready-to-use or ready-to-administer containers that will allow for sterile delivery of the container contents to the sterile field.

## SAMPLE PROTOCOL FOR SAFE MEDICATION HANDLING AND ADMINISTRATION IN THE OR

- \* Verify medication orders according to facility policies. Verify any medication listed on the physician's preference list with the physician before delivery to the sterile field and/or administration.
- \* Confirm all verbal orders by repeating the complete order using a digit-by-digit technique for dose (ie, one-two, not twelve) and recording the order in the patient's record as soon as feasible. Only physicians and/or RNs should receive verbal orders. Document medication orders according to facility policy.
- \* Treat chemicals and reagents (eg, formalin, saline, Lugol's solution, radiopaque dyes, glutaraldehyde) in the OR with the same care and caution as medications.
- \* Verbally and visually verify all medications delivered to the sterile field, including medication, strength, dosage, and expiration date. Verifications should be done concurrently by the circulating nurse and scrub person. If there is no designated scrub person, the circulating nurse should verify the medication visually and verbally with the licensed professional performing the surgical procedure.
- \* Deliver medications to the sterile field in an aseptic manner. Do not remove stoppers from vials for the purpose of pouring medications. Use commercially available sterile transfer devices when possible (eg, sterile vial spike, filter straw, plastic catheter).
- \* Individually verify each medication and complete its preparation for administration, delivery to the sterile field, and labeling on the field before another medication is prepared.
- \* Label all medications, medication containers, (eg, syringes, medicine cups, basins), or other solutions on the sterile field even if there is only one medication involved. Include the name and the strength of the medication on the label. Labels can be developed by the facility, or commercially available sterile labels can be purchased. All labels should be verified verbally by stating medication, strength, and dosage and visually by the scrub person and the circulating nurse concurrently.
- \* Discard any solution or medication found in the OR without an identification label.
- \* When passing a medication to the licensed professional performing the procedure, visually and verbally verify the medication, strength, and dose with that practitioner by reading the medication label aloud.
- \* One RN and another qualified individual should verify and double check all medication calculations.
- \* At shift change or break relief, all medications and their labels on the sterile field should be noted and verified concurrently by the entering and exiting personnel.
- \* All containers from medications used during any procedure must remain in the OR until the conclusion of the procedure.