# CORRECTION: National Patient Safety Goals on Labeling Medications and Multidrug-Resistant Organisms

During the revision of the 2010 National Patient Safety Goals, the language of NPSG.03.04.01 on labeling medications was modified to include the preparation date in addition to the expiration dates and times that were required in the existing requirement. This addition unintentionally increased the scope of the goal and places a burdensome additional requirement on health care organizations. As such, NPSG.03.04.01, EP 3, has been modified as indicated with strikethrough text in the box below. The change is **effective immediately** and affects **ambulatory care, critical access hospital, hospital,** and **office-based surgery** organizations.

Furthermore, the word "prevention" was inadvertently omitted from the 2010 version of NPSG.07.03.01, EP 3, on preventing infections related to multidrug-resistant organisms. This goal applies to **critical access hospitals** and **hospitals**. The correct language for NPSG.07.03.01 appears in underline text in the box below. P

Joint Commission Requirement

**Official Publication of Joint Commission Requirement**

## Correction to Two National Patient Safety Goals

**APPLICABLE TO AMBULATORY CARE, CRITICAL ACCESS HOSPITALS, HOSPITALS, AND OFFICE-BASED SURGERY**

**Effective Immediately**

**NPSG.03.04.01**

Label all medications, medication containers, and other solutions on and off the sterile field in perioperative and other procedural settings.

**Note:** *Medication containers include syringes, medicine cups, and basins.*

**Elements of Performance for NPSG.03.04.01**

A 3. In perioperative and other procedural settings both on and off the sterile field, medication or solution labels include the following: ⚠

- Medication name
- Strength
- Quantity
- Diluent and volume (if not apparent from the container)
- ~~Preparation date~~
- Expiration date when not used within 24 hours
- Expiration time when expiration occurs in less than 24 hours

**Note:** *The date and time are not necessary for short procedures, as defined by the [organization].*

**APPLICABLE TO CRITICAL ACCESS HOSPITALS AND HOSPITALS**

**Effective Immediately**

**NPSG.07.03.01**

Implement evidence-based practices to prevent health care–associated infections due to multidrug-resistant organisms in [acute care hospitals/critical access hospitals].

**Note:** *This requirement applies to, but is not limited to, epidemiologically important organisms such as methicillin-resistant staphylococcus aureus (MRSA), clostridium difficile (CDI), vancomycin-resistant enterococci (VRE), and multidrug-resistant gram-negative bacteria.*

**Elements of Performance for NPSG.07.03.01**

C 3. Educate patients, and their families as needed, who are infected or colonized with a multidrug-resistant organism about health care–associated infection prevention strategies. ⓜ


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# Labeling Medications in the Operating Room: Strategies for Complying with NPSG.03.04.01

Errors, sometimes tragic, have resulted from medications and other solutions being removed from their original packaging and placed into unlabeled containers.[1] This unsafe practice neglects basic principles of medication safety yet has been routine in many organizations, especially with medications prepared in the sterile field.[1]

For example, if a patient undergoing repair of a brain aneurysm is injected with chlorhexidine (a skin-cleansing agent) instead of contrast medium because both of these clear and colorless liquids are on the sterile field in unlabeled containers, that patient could die. Or suppose a patient receiving chemotherapy is given an intrathecal injection of vincristine, which should have been given intravenously, because the vincristine syringe is not labeled.[2] This error could also prove fatal.[2]

"In the intraoperative setting, there are a number of medication processes taking place simultaneously," says Carol Petersen, R.N., B.S.N., M.A.O.M, C.N.O.R., manager of perioperative informatics, Center for Nursing Practice, Association of periOperative Registered Nurses (AORN). "You may have a variety of medications being used that are being administered via several different routes, primarily IV [intravenous], IM [intramuscular], or topically. These are some of the factors that can contribute to errors."

NPSG.03.04.01 requires that all medications, medication containers (for example, syringes, medicine cups, basins), and other solutions on and off the sterile field be labeled. Implementation expectations for this requirement are as follows[1]:

1. Medications and solutions both on and off the sterile field are labeled even if there is only one medication being used.
2. Labeling occurs when any medication or solution is transferred from the original packaging to another container.
3. A label includes the drug name, strength, amount (if not apparent from the container), expiration date when not used within 24 hours, and expiration time when expiration occurs in less than 24 hours.
4. All labels are verified both verbally and visually by two qualified individuals when the person preparing the medication is not the person administering the medication.
5. No more than one medication or solution is labeled at one time.
6. Any medications or other solutions found unlabeled are immediately discarded.
7. All original containers from medications or solutions remain available for reference in the perioperative/procedural area until the conclusion of the procedure.
8. All labeled containers on the sterile field are discarded at the conclusion of the procedure.
9. At shift change or break relief, all medications and solutions both on and off the sterile field and their labels are reviewed by entering and exiting personnel.

NPSG.03.04.01 applies to any surgical or other procedural setting and includes pre-, intra-, and postoperative/procedural components. Consequently, this requirement applies not only to the surgical suite but also to prep areas, preop holding, and the postanesthesia care unit.[3] It also applies to medications used by anesthesia providers. The requirement applies to all procedural areas that use medications or solutions, including, but not limited to, radiology and other imaging services, endoscopy units, dental services, and patient care units where "bedside" procedures are done.[3]

## Strategies for Minimizing Errors Related to Improper Labeling

"The first step in minimizing labeling errors in the intraoperative setting is to ensure that the appropriate medication is aseptically delivered to the sterile field," Peterson says. "This involves the circulating nurse, who is outside the sterile field, handing off the medication or solution to a scrub tech or another registered nurse who is inside the field. All of this has to be done without contaminating the contents of the vial or other container, which can be difficult. This additional handoff can increase the risk for error."

Strategies for safely delivering medications to the sterile field include the following[4]:

- Confirm all medications listed on the physician's preference list with the surgeon before delivery to the sterile field.
- Clarify with the prescriber orders that include abbreviations, symbols, or acronyms.
- Verify medication from its original container for the correct name, strength, dosage, and route with the surgeon's preference card.
- Actively communicate the medication name, strength, dosage, and expiration date as the medication is passed to the sterile field.
- Confirm both verbally and visually all medications delivered to the

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sterile field, including medication name, strength, dosage, and expiration date.
- Ensure that medications are verified concurrently by the circulating nurse and the scrub nurse or scrub technician (or by the person who is performing the procedure, if there is no designated scrub person).
- Deliver one medication at a time to the sterile field.
- Do not remove stoppers from vials for the purpose of pouring medications.
- Use commercially available sterile transfer devices when possible (for example, sterile vial spike, filter straw, plastic catheter).
- Reconfirm maximum dose limits.

"Once a medication or solution is on the sterile field, the person who is scrubbed should take a 'time out' to go through the 'five rights' of medication administration [right patient, right medication, right dose, right time, and right rate]," Peterson says. "If the medication is in a cup or another container, that medication should be labeled. If it is then drawn up into a syringe, the syringe should also be labeled. Everything gets a label."

Strategies for managing medications once on the sterile field include the following[4]:
- Verbally and visually confirm the medication name, strength, dosage, and expiration date upon receipt from the circulating nurse.
- Label all medication containers and delivery devices with, at a minimum, the medication name, strength, and concentration.
- Both verbally and visually confirm the medication name, strength, and dose by reading the medication label aloud while passing the medication to the surgeon or other licensed independent practitioner who is performing the procedure.
- Review medication accuracy during patient handoffs (for example, personnel relief). This should include reviewing the product label for the medication name, strength, concentration, and expiration date and reviewing the medication order to validate that the correct medication is on the sterile field.
- Discard any medication or other solution found on the sterile field without an identification label.

All original containers from medications or solutions must remain available for reference in the intraoperative or procedural area until the procedure is completed. The practice of keeping the empty containers for future reference until the patient leaves the operating room is important in the event of a medication-related error or other adverse drug reaction.[4] Maintaining these containers can also help to facilitate a root cause analysis, which should be conducted following any adverse event.[4] After the procedure is completed, the contents held in all labeled containers on the sterile field must be discarded.[1]

Organizations can use the following strategies for creating, using, and enforcing the use of labels in the perioperative setting[1]:
- Include on a label the name, date, and strength of the medication or solution and the initials of the person preparing the label.
- Develop distinct labels or purchase commercially available sterile labels.
- Ensure that two qualified individuals verify labels both verbally and visually by two qualified individuals.
- Do not label more than one medication or solution at the same time.
- Discard any medications or other solutions that are found without labels.
- Eliminate distractions during medication preparation.

"Even if a medication has a distinct label, it's important that the appropriate personnel take the time to read that label," says Peterson. "There is no substitute for reading a label and verifying both verbally and visually that the appropriate medication is being given." PS

### Sources of Medication Error in the Operating Room

Factors that can contribute to medication errors in the perioperative or procedural setting include the following:
- Distractions
- Unexpected events and emergencies
- Insufficient or minimal staffing
- Real or perceived lack of time for proper medication labeling and verification[2]


References

1. The Joint Commission: *Meeting the Joint Commission's 2008 National Patient Safety Goals.* Oakbrook Terrace, IL: Joint Commission Resources, 2007.

2. Medication station: The prerequisite label. Unlabeled medications, solutions, and containers can lead to adverse events. *The Joint Commission Perspectives on Patient Safety* 5:3–4, 8, Oct. 2005.

3. The Joint Commission: FAQs for *The Joint Commission's 2007 National Patient Safety Goals*, Jan. 2007.

http://www.jointcommission.org/NR/rdonlyres/B423198E-8EB1-468C-B01E-DBB0324B5C60/0/07_NPSG_FAQs_3.pdf (accessed Apr. 19, 2008).

4. Association of periOperative Registered Nurses: AORN guidance statement: Safe medication practices in perioperative settings across the life span. *AORN J* 84:276–283, Aug. 2006.



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# NPS Goal 3.04.01 FAQ's:
# Medication Labeling in Perioperative and Procedural Areas

1. **Does the requirement to label medications only apply to the operating room?**
   No. The requirement applies to all surgical and procedural areas that use medications or solutions. Examples include radiology, imaging services, endoscopy units, cardiac catherization lab, EP lab.

2. **What information should be on the labels?**
   - Drug name
   - Strength
   - Quantity
   - Diluent and volume (if not apparent from container)
   - Expiration date when not used within 24 hours
   - Expiration time when expiration occurs in less than 24 hours

   Note: the date and time are not necessary for short procedures as defined by the hospital.

3. **Are there exceptions to the labeling?**
   Yes, if the medication is drawn up and immediately administered with no intervening step or break in the process, labeling is not required.

4. **If a clinician draws up two medications into two separate syringes, then administers both medications, do the syringes need to be labeled?**
   Yes

5. **What is the procedure when the person preparing the medication or solution is not the person who will be administering it?**
   Two individuals should verify the medication or solution labels both verbally and visually.

6. **What should be done with medications or solutions found unlabeled?**
   They should be discarded immediately.

7. **When should I discard labeled containers on the sterile field?**
   You should discard labeled containers at the end of the procedure. Note: This does not apply to multiuse vials that are handled according to infection control practices.

8. **What is the procedure when staff who are responsible for the management of medications changes e.g. change of shift?**
   Entering and exiting staff should review all medications and solutions both on and off the sterile filed.

9. **How will the Joint Commission surveyor evaluate our compliance with labeling**
   - **Observe** if possible
   - **Ask** when you label and what is included on the label.