

Recommended Practices for Specimen Management

The following Recommended Practices for Specimen Management have been approved by the AORN Recommended Practices Advisory Board. They were presented as proposed recommendations for comments by members and others. They are effective May 15, 2014. These recommended practices are intended to be achievable recommendations representing 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 recommended practices can be implemented. AORN recognizes the many diverse settings in which perioperative nurses practice, and as such, these recommended practices are guidelines adaptable to all areas where operative and other invasive procedures may be performed.

Purpose

These recommended practices provide guidance for management of surgical specimens in the perioperative practice setting, including guidance for the handling of body parts being reattached to the patient, forensic and radioactive specimens, and explanted medical devices and orthopedic hardware. Surgical techniques for resection of specimens is outside the scope of this recommended practices document. This document does not address clinical laboratory specimens obtained for diagnostic or other screening procedures performed on blood, body fluids, or other potentially infectious materials. The reader should refer to 42 CFR 493, Laboratory Requirements, for guidance in this area.¹

Specimen management is a multifaceted, multidisciplinary process that includes

- needs assessment,
- site identification,
- collection and handling,
- transfer from the sterile field,
- containment,
- specimen identification and labeling,
- preservation,
- transport,
- disposition of the specimen, and
- documentation.

Accurate specimen management requires effective multidisciplinary communication, minimized distractions, and awareness of the potential opportunities for error. An error is an unintended act of omission (ie, failing to perform an action) or commission (ie, performing an action that results in harm).² Errors in specimen management leading to inaccurate or incomplete diagnosis, the need for additional procedures, and physical and psychological injury have been reported.³⁻⁵

In a survey commissioned by the Association of Directors of Anatomic and Surgical Pathology to assess perceptions and definitions of errors in surgical pathology and to examine and measure the frequency of errors among its members, researchers randomly surveyed pathologists in 40 academic pathology laboratories in the United States and one in Canada (N = 41). When asked to indicate where most errors in surgical pathology occurred, 53% of respondents indicated the preanalytical phase (ie, before the specimen reaches the pathology laboratory for analysis and processing), 38% indicated the analytical phase (ie, within the pathology laboratory while the specimen is being analyzed and processed), and 6% indicated the postanalytical phase (ie, after the specimen has been analyzed and processed in the pathology laboratory).⁶

Examples of errors that may occur during the preanalytical phase include incorrect

- pathology request,
- order entry,
- patient identification,
- specimen identification,
- specimen (or no specimen) in the container,
- collection or handling methods,
- container or preservative, and
- transport methods or destination.

Examples of errors that may occur during the analytical phase include

- equipment malfunction,
- specimen mix-ups, and
- undetected failure in quality control.

Examples of errors that may occur during the postanalytical phase include

- confirmation of erroneous data,
- failure or delay in pathology reporting or addressing the pathology report,
- excessive turnaround time, and
- improper data entry and manual transcription.

Errors that may have occurred during the preanalytical phase are often detected during the analytical phase because the histology visualized under the microscope does not correspond to the biopsy site specified in the accompanying documentation or clinical history.⁷ There are many points in the analytical phase during which an error can occur. Errors occurring during the analytical phase have the potential to cause great patient harm because the results of the examination by the pathologist may be critical for effective patient care.⁷

Errors in specimen management may be classified as

- near misses (ie, the error has the potential to harm the patient, but does not, either by chance or because the error was detected before harm resulted),^{7,8}

