Recommended Practices for Cleaning and Care of Surgical Instruments and Powered Equipment

The following recommended practices for the cleaning and care of surgical instruments and powered equipment were developed by the AORN Recommended Practices Committee and have been approved by the AORN Board of Directors. They were presented as proposed recommendations for comments by members and others. They are effective January 1, 2008. These recommended practices are intended as 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 various settings in which perioperative nurses practice. These recommended practices are intended as guidelines adaptable to various practice settings. These practice settings include traditional operating rooms, ambulatory surgery centers, physicians' offices, cardiac catheterization laboratories, endoscopy suites, radiology departments, and all other areas where surgery may be performed. The reader is referred to the Perioperative Nursing Data Set (PNDS) for explanation of nursing diagnoses, interventions, and outcomes.[1]

Purpose

These recommended practices provide guidelines to assist perioperative nurses in decontaminating and preparing surgical instruments and powered equipment for terminal sterilization and disinfection. These recommended practices are general recommendations, as it is impossible to make a separate recommendation for every instrument used. These recommended practices complement AORN's "Recommended practices for sterilization in perioperative practice settings"[2] and "Recommended practices for high-level disinfection in perioperative practice settings."[3]

Perioperative nurses should consult these documents to assist them in providing a safe environment for the patient. Perioperative nurses are advised to review the Association for the Advancement of Medical Instrumentation (AAMI) standards for additional practice details. Information about flexible endoscope cleaning can be found in the AORN "Recommended practices for cleaning and processing endoscopes and endoscope accessories."[4]

Recommendation I

The manufacturer's written, validated instructions for handling and reprocessing should be obtained and evaluated to determine the ability to adequately clean and reprocess the equipment within the health care facility before purchasing surgical instruments and powered equipment.

Cleaning and handling instructions recommended by the device manufacturer vary widely. Specific types of equipment, pneumatically powered instruments, and specialty instruments can require special cleaning and maintenance procedures.[5]

I.a. The manufacturer's written instructions should be used to determine how to replicate the validated cleaning and processing methods.[6]

I.a.1. The manufacturer's written instructions should identify requirements related to
- utilities (eg, type of water, compressed air);
- cleaning equipment;
- accessories (eg, adaptors) for creating a proper connection between the instruments and equipment, utilities, and cleaning equipment;
- accessories for cleaning lumens, ports, and internal parts;
- cleaning agents[6];
- lubricants; and
- processing methods.

I.b. The accessories necessary to reprocess the instrument according to the manufacturer's validated instructions should be obtained at the time of purchase.

Using the proper accessories that fit the instruments and equipment and that were used during testing provides the best opportunity to replicate validated cleaning methods.

Recommendation II

New, repaired, and refurbished instruments should be examined, cleaned, and sterilized according to manufacturers' written instructions before use in a health care organization.

II.a. When new, repaired, or refurbished instruments are received into a facility, all moving parts, tips, box locks, ratchets, screws, and cutting edges should be examined for defects and to ensure proper working order.

Inspecting the instrument verifies that the instrument has no obvious defects and has not sustained damage during shipping.

II.b. When indicated, new instruments should be pretreated according to the instrument manufacturer's written instructions.

Some manufacturers recommend a series of treatments in a steam sterilizer to harden the