GUIDELINE FOR CLEANING AND CARE OF SURGICAL INSTRUMENTS

The Guideline for Cleaning and Care of Surgical Instruments has been approved by the AORN Guidelines Advisory Board. It was presented as a proposed guideline for comments by members and others. The guideline is effective November 15, 2014. The recommendations in the guidelines 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 many diverse settings in which perioperative nurses practice; therefore, this guideline is adaptable to all areas where operative and other invasive procedures may be performed.

Purpose

This document provides guidance for cleaning surgical instruments, including point-of-use cleaning, selecting cleaning chemicals, and determining water quality. Guidance is also provided for decontaminating, transporting, inspecting, and care of surgical instruments. Processing of laryngoscope blades and handles and ophthalmic instruments, special precautions necessary to minimize the risk for transmitting prion diseases from contaminated instruments, and the use of personal protective equipment (PPE) that must be worn during cleaning and care of instruments are also addressed. The recommendations are general recommendations, as it is not possible to make a separate recommendation for every instrument used.

Sterilization, packaging for terminal sterilization, high-level disinfection, and processing of flexible endoscopes are outside the scope of this document. Guidance for these topics is provided in the AORN Guideline for Sterilization,[1] Guideline for High-Level Disinfection,[2] Guideline for Selection and Use of Packaging Systems for Sterilization,[3] and Guideline for Cleaning and Processing Flexible Endoscopes and Endoscope Accessories.[4]

Evidence Review

On August 2, 2013, a medical librarian conducted a systematic search of the databases MEDLINE®, CINAHL®, and the Cochrane Database of Systematic Reviews for meta-analyses, systematic reviews, randomized controlled and non-randomized trials and studies, case reports, letters, reviews, and guidelines. The search was limited to literature published in English from January 2008 through June 2013.

Search terms included *surgical instruments, equipment reuse, surgical procedures, instrument reprocessing, cross infection, infection control, surgical wound infection, surgical site infection, equipment contamination, washing system, washer-disinfector, medical device washer, presoak, soak, disinfection, decontamination, sterilization, detergents, sterile water, water purification, water microbiology enzymatic detergents, non-enzymatic detergents, ultrasonic, impingement, maintenance, storage, transport, case cart, inspection, magnification, staining, corrosion, adenosine triphosphate, photobacterium, luciferases, luminescent measurements, microbial sensitivity tests, ninhydrin, antineoplastic agents, toxic anterior segment syndrome, toxic endothelial cell deconstruction, prion diseases, Creutzfeldt-Jakob syndrome, fatal familial insomnia, and Gerstmann-Straussler-Scheinker. Surgical instruments as a broad search term was augmented by the inclusion of terms related to specific instruments, such as laryngoscopes, blades, forceps, scalpels, dilators, lumens, drills,* and *retractors.*

At the time of the initial search, the librarian established weekly alerts on the search topics and until June 2014, presented relevant results to the lead author. During the development of this guideline, the author requested supplementary literature searches and additional literature that either did not fit the original search criteria or was discovered during the evidence-appraisal process; this additional literature included book chapters and manufacturers' materials. The librarian and author also identified relevant guidelines from government agencies and standards-setting bodies.

Articles were excluded if they addressed the use of a device or the care of patients rather than the practices associated with instrument processing. Articles related to processing single-use devices were excluded as outside the scope of this document. Articles that were clearly biased or written as product promotion for marketing purposes also were excluded.

Articles identified in the search were provided to the lead author and assigned evidence reviewer for review and critical appraisal using the AORN Research or Non-Research Evidence Appraisal Tools as appropriate. The literature was independently evaluated and appraised by the lead author and evidence reviewer according to the strength and quality of the evidence. Each article was then assigned an appraisal score determined by consensus. The appraisal score is noted in brackets after each reference as applicable.

The evidence supporting each activity and intervention statement within a specific recommendation was summarized, and the AORN Evidence-Rating Model was used to rate the strength of the collective evidence. Factors considered in the review of the collective body of evidence were the quality of similar evidence on a given topic, the consistency of the evidence supporting a recommendation, and the