Cleaning, Disinfecting, and Sterilizing Guidelines - SAMPLE

Cleaning, disinfecting, and sterilizing

Appropriate cleaning, disinfecting, and sterilizing of patient care equipment are important for limiting the transmission of organisms that contaminate reusable patient care equipment. Develop comprehensive, clearly written policies and procedures for cleaning, disinfecting, and sterilizing instruments in outpatient settings. Post the procedures in equipment cleaning and reprocessing areas. Provide annual training and competency testing to staff members performing these tasks. Monitor performance for compliance with policies and procedures and currently recommended guidelines and standards.

Single-Use Devices (SUDs)
Review all medical devices and equipment used to determine if it is a single use only (disposable) or reusable. Never clean and reuse disposable devices. Single-use devices are used only one time and discarded immediately after use.

Reusable Equipment
Determine the required level of cleaning for reusable patient equipment. Clean, disinfect, and sterilize reusable patient care equipment using Environmental Protection Agency (EPA) registered cleaning and disinfecting products in keeping with manufacturers' recommended guidelines. If the manufacturer does not provide guidance regarding product cleaning, disinfecting, and/or sterilizing, the product may not be reusable equipment. Follow up with the manufacturer as indicated to affirmatively determine if the equipment is considered an SUD or reusable equipment.

Definitions

The Spaulding Classification provides guidance to identify and define reusable medical equipment, which aids efforts to mitigate the transmission of pathogens after equipment use. There are three classifications for reprocessing reusable medical equipment in Spaulding's Classification system: critical, semicritical, and noncritical items. Each of these are discussed below.

Critical Items: Items that enter sterile tissue or vascular system must be sterile.[1] They include surgical instruments, cardiac and urinary catheters, implants, and ultrasound probes used in sterile body cavities.[2] Critical items must undergo sterilization (steam autoclaving is recommended).[3]

Semicritical Items: These items contact mucous membranes or non-intact skin.[4] They include respiratory therapy and anesthesia equipment, some endoscopes, laryngoscope blades, esophageal manometry probes, cystoscopes, anorectal manometry catheters, and diaphragm fitting rings.[5] Semicritical items require, at a minimum, high-level disinfection using chemical disinfectants.[6]

Noncritical Items: These items come in contact with intact skin, but not mucous membranes.[7] They are usually reusable items (e.g., blood pressure cuffs, bedpans, crutches) and may be cleaned with low or intermediate level disinfectants, depending upon the amount and type of contamination on the item.[8]

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Element	Rationale	Basic Recommendations to Include
Precleaning	Always thoroughly pre-clean to remove organic and inorganic material prior to sterilization and high-level disinfection.	• Preclean using water and detergents or enzymatic products.[9] • Recognize that enzymatic cleaners are not disinfectants.[10] • Use enzymatic cleaners in accordance with the manufacturer's instructions.[11] • Label sinks used to clean instruments as dirty. Do not use these sinks as eyewash stations or as disposal receptacles for other potentially infectious material (OPIM), such as lab specimens.
Sterilization	All critical equipment (i.e., surgical instruments and equipment that enter normally sterile tissue, the vascular system, or where sterile fluid such as blood flows) must be sterilized.	• Follow the manufacturer's instructions for cleaning and sterilizing instruments and equipment.[12] Ensure the cleaning/reprocessing/sterilization room is a separate room clearly designed to separate the dirty side from the clean side, with enough counter space[13] and large enough sinks to properly soak, disinfect, and scrub the instruments.
High-Level Disinfection	Semi-critical equipment (i.e., items that come into contact with non-intact skin or mucous membranes, such as reusable flexible endoscopes or laryngoscope blades) must, at a minimum, undergo high-level disinfection.	• Preclean equipment to remove organic and inorganic material before undergoing high-level disinfection.[14] • Recognize that high-level disinfection does not sterilize and therefore cannot be used on critical equipment.
Cold Sterilants	If a practice is using cold sterilants, such as gluteraldehyde or Cidex®, as a high-level disinfectant, develop written protocols.	• Develop written protocols for cold sterilants that include: ○ Employee education and training. ○ Personal protective equipment. ○ Use of hood or vented area. ○ Dipstick to check efficacy of the solution used. ○ Cleaning instruments before soaking. ○ Frequency and dating of solution changes. ○ Exposure monitoring. ○ Disposal of solutions. ○ Spill control and clean up.
Autoclaves	If the office setting uses autoclaves to sterilize equipment, develop appropriate procedures.	• Develop written competency training on autoclave usage to ensure that everyone is properly using the autoclave sterilizer and adheres to the manufacturer's recommendations. Train office staff members how to properly package instruments and how to correctly load and operate the autoclave. • Perform weekly spore testing of the autoclave[15] (monthly if autoclave is used less frequently than daily). In addition to routine biological monitoring, have equipment users perform biological monitoring: ○ "whenever a new type of packaging material or tray is used, ○ after training new sterilization personnel,

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		○ after a sterilizer has been repaired, and ○ after any change in the sterilizer loading procedures."[16] • Document and maintain the results in a log.[17] • Address, in policy, the steps to take when spore testing reveals the presence of spores. Include identifying patients who may be at risk for infection, disclosure to patients, and, if necessary, providing antibiotic prophylaxis. • Ensure steam-sterilized packs go through a drying cycle prior to handling for storage.[18] • Carefully store wrapped packs in clean, dry, dust-free areas (closed shelves), not at floor level and away from debris, drains, moisture, and vermin to prevent contamination and maintain sterility until the time of use. • Never store sterile supplies near, under, or on surfaces that can get wet easily.

References

1. William A. Rutala, David J. Weber and the Healthcare Infection Control Practices Advisory Committee (HICPAC), *Guideline for Disinfection and Sterilization in Healthcare Facilities, 2008,* https://www.cdc.gov/infectioncontrol/pdf/guidelines/disinfection-guidelines.pdf , 03/07/17.
2. Ibid.
3. Ibid.
4. Ibid.
5. Ibid.
6. Ibid.
7. Ibid.
8. Ibid.
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10. Ibid.
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13. William A. Rutala, David J. Weber and the Healthcare Infection Control Practices Advisory Committee (HICPAC).
14. Centers for Disease Control and Prevention (CDC), "Infection Control in Dental Settings – Infection Control – Frequently Asked Questions - Sterilization – Monitoring," Page last updated July 10, 2013, https://www.cdc.gov/oralhealth/infectioncontrol/faqs/index.html , 03/7/17.
15. Centers for Disease Control and Prevention (CDC), "Guide to Infection Prevention for Outpatient Settings: Minimum Expectations for Safe Care," Page last updated September 2016, https://www.cdc.gov/infectioncontrol/pdf/outpatient/guide.pdf
16. William A. Rutala, David J. Weber and the Healthcare Infection Control Practices Advisory Committee (HICPAC), *Guideline for Disinfection and Sterilization in Healthcare Facilities, 2008,* https://www.cdc.gov/infectioncontrol/pdf/guidelines/disinfection-guidelines.pdf , 03/07/17.
17. Ibid.
18. Ibid.