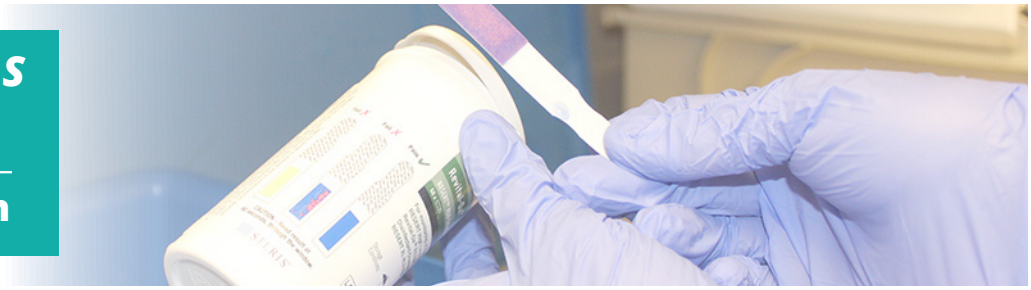
GUIDELINE *ESSENTIALS*
KEY TAKEAWAYS
High-Level Disinfection



TAKEAWAY	EXPLANATION
Manual high-level disinfection (HLD) may be performed when it is the only processing method recommended by the manufacturer.	• Sterilization provides the greatest margin of safety and assurance that reusable semicritical items are safe for use. However, some items cannot withstand sterilization or processing by automated methods because these may damage the item or reduce the useful life of the item. **2.1** • Automated processes can be more efficient and consistent than a manual process and can reduce exposure of personnel to high-level disinfectants. **2.2**
High-level disinfection should be performed in an area intended, designed, and equipped for processing activities.	• Performing HLD in a designated area can reduce the risk for cross contamination, improve efficiency, and provide a safe work environment. **3.2** • The area should have sufficient space to permit unobstructed movement of personnel during the disinfection process. Crowded workspaces may increase the potential for spills or personnel exposures to chemicals or bioburden. **3.5** • NEW Personnel may experience discomfort during manual cleaning and processing methods, which can reduce adherence to processing guidelines, so it is important to incorporate ergonomic features, such as work surfaces and sinks at a comfortable height, space for performance of cleaning tasks, adequate lighting, comfortable room temperature, and limited noise, in the processing area. **3.8**
Dried bioburden makes cleaning more difficult and can lead to the development of biofilm, rendering HLD ineffective.	• Performing point-of-use treatment immediately after completion of device use helps prevent biofilm development. **6.2** • Keeping the contaminated device moist but not submerged in liquid during transport helps ease the removal of organic soils by preventing the soil from drying. **6.3.2** • Immediately transporting the contaminated device to the decontamination area facilitates initiation of the cleaning process and prevents unnecessary delays that may lead to the need to perform more rigorous delayed processing protocols. **6.3** • NEW To assist decontamination personnel, the hand-over from the transporter should include the time that point-of-use treatment was completed and whether point-of-use treatment began immediately after use of the device, and if not, the time that device use was completed and whether the device was kept moist until point-of-use treatment could be performed. **6.3.3**

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TAKEAWAY	EXPLANATION
Inspection facilitates detection of residual soil and identification of items in need of repair.	• Using lighted magnification for inspection helps ensure that a device that appears clean does not harbor debris that cannot be seen without magnification. **6.8.1** • NEW Using a clean borescope to visually inspect accessible channels of the device before HLD allows for visual inspection of internal channels and may identify damage or debris that would otherwise be undetected. **6.8.2** • NEW Cleaning verification tests performed at established intervals (eg, after each use, daily) verify manual cleaning of the device before HLD. Cleaning verification testing (eg, ATP, protein, carbohydrate, hemoglobin) provides an objective method for verifying cleanliness. **6.8.3**
Activated high-level disinfectants should be used at the concentration recommended by the manufacturer.	• High-level disinfectant solution potency cannot be guaranteed when the solution concentration falls below the minimum. • The concentration of the active ingredient in a high-level disinfectant solution decreases with dilution by water, the presence of organic or inorganic soil, time, evaporation of the solution, and exposure of the solution to light. **7.2.1** • Using a test strip or other US Food and Drug Administration–cleared testing device that is compatible with the high-level disinfectant before each use determines whether the concentration of the active ingredient in the high-level disinfectant is above or below the minimum concentration. **7.2.1** • NEW Despite recommendations for testing the concentration of high-level disinfectants before each use, compliance with guidelines and manufacturer's instructions is low. **7.2.1**
After HLD, rinse the item as described in the device manufacturer's instructions for use (IFU).	• Thorough rinsing and flushing helps prevent patient injury associated with high-level disinfectant remaining on the device. **8.5** • Rinsing the device with critical water (eg, reverse osmosis [RO], and/or deionization [DI]) or sterile water reduces the potential for introducing microorganisms onto the disinfected device. Some manufacturers recommend rinsing with utility water (eg, tap water); however, utility water may contain microorganisms and endotoxin that can be deposited on the item during the rinsing process. **8.5.1** • NEW The high-level disinfectant manufacturer's IFU may recommend a large volume of fresh rinse water to facilitate removal of chemical residues, so the basin used should be large enough to contain the volume of rinse water recommended in the high-level disinfectant manufacturer's IFU. **8.7** • NEW Changing the rinse water after each use can help prevent contamination of the item after processing. **8.8**

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TAKEAWAY

Drying is an important terminal step in HLD processing.

EXPLANATION

- Any moisture remaining on the exterior and interior surfaces of the device can facilitate microbial growth and biofilm formation during storage. **9.1**
- NEW All accessible device channels should be dried with pressure-regulated instrument air or high-efficiency particulate air filtered air in accordance with the manufacturer's IFU to prevent introducing contaminants that may be present in lower-quality air. **9.2**

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