What’s needed for reprocessing, storage of laryngoscope blades?

An occasional column on Joint Commission issues.

The reprocessing and storage of laryngoscope blades has been a hot button for Joint Commission surveyors, and OR managers have been asking how they can comply with the expectations.

In answer, the Joint Commission on October 24, 2011, issued a response to a frequently asked question (FAQ) on the issue.

The FAQ refers to the 2003 CDC/HICPAC Guidelines for Preventing Healthcare Associated Pneumonia from the Centers for Disease Control and Prevention’s Healthcare Infection Control Practices Advisory Committee (www.cdc.gov/mmwr/preview/mmwrhtml/rr5303a1.htm).

Per Joint Commission standard IC.01.05.01 EP 1, organizations must follow “evidence-based national guidelines” such as these when developing infection prevention and control activities.

Blades are semicritical devices

As the FAQ notes, the very last page of the CDC/HICPAC guidelines lists laryngoscope blades as semicritical devices. If you search for the word “semicritical” (no hyphen), you’ll find the following requirement (please note, it’s a Category 1A, the strongest of all recommendations): “Whenever possible, use steam sterilization (by autoclaving) or high-level disinfection by wet heat pasteurization at >158°F (>70°C) for 30 minutes for reprocessing semicritical equipment or devices. . . . After disinfection, proceed with appropriate rinsing, drying, and packaging, taking care not to contaminate the disinfected items in the process (308;310). Category IA.”

The italicized section highlights a key issue that Joint Commission and Centers for Medicare and Medicaid Services surveyors are looking for specifically: wrapping of laryngoscope blades in individual packaging to prevent contamination while being stored for the next use.

Trigger for recommendations

During a survey, the trigger for recommendations often involves the surveyor’s inspection of equipment drawers in anesthesia carts and discovery of a collection of unwrapped blades in these locations.

Application of the CDC’s recommendation would be to clean the blade, subject it to high-level disinfection (HLD) or sterilization, and then ensure the blade is packaged and stored in a manner that prevents contamination.

An example is storing the blades in a clean sandwich-type bag or even a Ziploc-type bag. (Note: Neither the CDC nor Joint Commission has specified that such bags need to be sealed; the bag simply needs to cover or protect the blade from coming into contact with blood, body fluid, or organic material.)

The rationale is that the blade is a semicritical device and needs to undergo appropriate reprocessing and be protected from contamination prior to the next use. These blades are also used in a variety of other locations, such as the emergency depart-
Suggested policy for laryngoscope blades

A suggested laryngoscope disinfection and storage policy might include the following.

### Infection Control Policy: High-Level Disinfection of Laryngoscope Blades

<table>
<thead>
<tr>
<th>Laryngoscopes blades, non-CSR* reprocessing:</th>
<th>Laryngoscopes reprocessed in CSR*:</th>
</tr>
</thead>
<tbody>
<tr>
<td>■ After use, all laryngoscope blades must be thoroughly cleaned prior to high-level disinfection or sterilization. Note: At a minimum, all laryngoscope blades will undergo at least high-level disinfection in between patient uses consistent with the CDC/HICPAC Guidelines for Preventing Health-Care Associated Pneumonia, 2003.</td>
<td>■ After use, the blade is placed in the soiled equipment basin and returned to CSR.</td>
</tr>
<tr>
<td>■ The handle of the light source for the laryngoscope, a noncritical device, will be disinfected in between uses with a surface disinfectant and returned to a clean storage location.</td>
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<tr>
<td>■ When using a high-level disinfectant (eg, orthophthalaldehyde, glutaraldehyde, hydrogen peroxide, etc), the basin of disinfectant should be kept covered at all times. The effective concentration of the high-level disinfectant should be monitored daily. Check concentration with test strip prior to each use based on manufacturer’s recommendations.</td>
<td>■ CSR will reprocess the blade using a washer-sterilizer or other method described by the blade manufacturer.</td>
</tr>
<tr>
<td>■ Immerse the blade in the high-level disinfectant for the amount of time specified by the manufacturer of the disinfectant. Review the directions on the label of the high-level disinfectant prior to use as well.</td>
<td>■ After the laryngoscope blade has been cleaned, CSR personnel will place it in an open basin for steam sterilization. (Alternative: Place in peel pouch and seal.)</td>
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<tr>
<td>■ Remove blade from disinfectant and rinse thoroughly under running water.</td>
<td>■ After sterilization, CSR personnel will assure the blade has been reprocessed properly and then place the individual blade in a clear plastic bag and return it to its clean storage location.</td>
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<tr>
<td>■ Dry the blade thoroughly.</td>
<td>■ For blades received from other areas, CSR will notify the area that the laryngoscope blade is ready to be picked up.</td>
</tr>
<tr>
<td>■ Place the individual blade in a clear, plastic bag and return it to its clean storage location.</td>
<td>■ All areas are to be responsible for adequate backup supply in order to avoid a shortage from occurring.</td>
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</tbody>
</table>

*CSR = Central sterile reprocessing.

This suggested policy is provided by Russell N. Olmsted, MPH, CIC, president, Applied Epidemiology Solutions, Inc, Ann Arbor, Michigan. Olmsted is a subcontractor to Patton Healthcare for issues related to infection prevention and control.

### Testing laryngoscope light source/handle and blade

- If testing of light source and blade is desired, observe proper hand hygiene practice and remove/partially remove the blade from the package, attach to light source, and test. Following test, insert blade back into the package and place in clean storage location.
- Be certain to apply this policy to all areas where laryngoscopes are used, for example, code carts, emergency department, anesthesia carts, difficult airway boxes or carts, etc.

Some areas may choose to upgrade from the minimum of high-level disinfection to steam sterilization—but the minimum standard is HLD. Some may decide to use ster-
ilization because the sterilized blades are then wrapped and protected. This may be optimal but is not required.

If the blade is HLD and contained in a plastic bag, and testing of the light source/blade is desired, it may be possible to manipulate the blade onto the light source/handle and test it without actually removing the blade from the bag and without actually touching the blade itself.

Even if the blade has been sterilized in a peel pouch, and light source/blade testing is desired, the provider is likely to be able to partially remove the blade from the peel pouch, test it, and slip it back into the peel pouch for ongoing protection. In either case, proper hand hygiene practices should be observed prior to handling the blade.

**Review instructions for use**

One other tip: review the instructions for use (IFU) from the manufacturer of the blade light source/handle. This component is not semicritical but is a noncritical device. As such, it does not need to undergo HLD or sterilization based on CDC recommendations. However, some manufacturers’ IFUs do specify disinfection between patient uses, so review this information for the light source/handles in use at your facility.

A suggested policy for laryngoscope disinfection and storage is in the sidebar. ❖

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The Joint Commission FAQ is at www.jointcommission.org/standards_information/jcfaq.aspx. The FAQ applies to hospitals, critical access hospitals, and ambulatory care organizations.