Standards FAQ Details

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Environment of Care (CAMAC / Ambulatory Health Care)

Laryngoscopes – Blades and Handles - How to clean, disinfect and store these devices

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Laryngoscopes – Blades and Handles - How to clean, disinfect and store these devices

Devices such as laryngoscope blades and handles, may be exposed to potentially infectious material during indicated use, and can become contaminated through direct contact with the patient's skin, mucous membranes, secretions and blood. To reduce the risk of infection, the importance of standardizing the reprocessing and storage of the laryngoscope's blade and handle is emphasized (for non-disposable laryngoscopes).

Cleaning – Laryngoscope Blades

Equipment used for intubation such as laryngoscope blades should be properly cleaned using the process for disinfection and sterilization of semi-critical items as designated by the CDC as "high-level" disinfection. Please refer to the CDC and HICPAC document entitled Guidelines for Disinfection and Sterilization in Healthcare Facilities, 2008.

In addition, the CDC's Healthcare Infection Control Practices Advisory Committee (HICPAC) states laryngoscope blades are "semicritical" items, which should be sterilized or subjected to high-level disinfection before reuse." Read CDC and HICPAC's document entitled Guidelines for Preventing Healthcare-Associated Pneumonia, 2003.The last page of the guideline lists laryngoscope blades as semi-critical items. Recommendation IIIA1b (pages 57-58) states how semi-critical items must be processed and packaged:

> "Whenever possible, use steam sterilization (by autoclaving) or high-level disinfection by wet heat pasteurization at >158oF (>70oC) for 30 minutes for reprocessing semi-critical equipment or devices (i.e., items that come into direct or indirect contact with mucous membranes of the lower respiratory tract) that are not sensitive to heat and moisture (see examples in Appendix). Use low-temperature sterilization methods (as approved by the Office of Device Evaluation, Center for Devices and Radiologic Health, FDA) for equipment or devices that are heat- or moisture-sensitive (307;309;310;314;315). After disinfection, proceed with appropriate rinsing, drying, and packaging, taking care not to contaminate the disinfected items in the process (308;310). CATEGORY IA"

Cleaning – Laryngoscope Handles

Laryngoscope handles are considered contaminated after use and must be processed prior to use with the next patient. Some manufacturers suggest a low-level surface disinfectant be utilized on the surface of the handle, while others may recommend high level disinfection or sterilization. As is the case with all medical devices, the manufacturer's indications for use (IFU) must be followed. Also check with your state for additional law or regulation; we are aware of at least one state that requires additional processing.

Storage

Laryngoscopes should be kept free from contamination until the time of use. Once opened, there is potential for microorganisms to settle on the equipment the longer it remains open and unused. In addition, increased handling of the opened unused blade increases the probability of contamination. Ensure that the storage area provides protection against dust, moisture, temperature and humidity extremes.

Please refer to the CDC and HICPAC document entitled Guidelines for Disinfection and Sterilization in Healthcare Facilities, 2008.

- Storing laryngoscope blades individually eliminates the potential for contaminating multiple blades if packaged together, and therefore having to reprocess several unused blades as opposed to the one that was used.
  - An option would be to contain the individual blade in a closed plastic bag, placed in a clean storage location.
  - If steam sterilized, a peel-pack may be used.
- When testing the light source and blade use:
  - proper hand hygiene
  - partially remove the blade from the package, attach to the light source, and test.
- Following testing, insert the blade back into the package and return to a clean storage location (manipulation of the blade onto the light source/handle can be tested without actually removing the blade from the bag or pack without touching the blade itself).
- Institute this practice to all areas where laryngoscopes are used. Examples are: code carts, anesthesia carts, and difficult airway boxes or carts.

Joint Commission surveyors will evaluate processes related to laryngoscope blades/handles to ensure that they are safe for use on the next patient. They will check that laryngoscope blades/handles are:

- For laryngoscope blades - processed via either high-level disinfection or sterilization.
- For laryngoscope handles – following manufacturer's instructions-for-use for cleaning/disinfection guidance.
- Packaged in some way. CDC and HICPAC guidelines do not specify the manner in which laryngoscope blades should be packaged.
- Stored in a way that would prevent contamination. Examples of compliant storage include, but are not limited to, a peel pack post steam sterilization, or containment within a closed plastic bag.

Examples of noncompliant storage would include unwrapped blades in an anesthesia drawer, as well as unwrapped blades on top of or within a code cart.

- The organization demonstrates a consistent process applied to all appropriate areas as reflected by organization policy and procedure.

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