SUBJECT:

XIII-113 HANDLING, CLEANING, DISINFECTION &

STERILIZATION OF ANESTHESIA EQUIPMENT

POLICY #: 1114
VERSION: 1

APPROVED BY:

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**PURPOSE:** 

To provide guidelines to ensure proper aseptic and sterile technique when performing anesthesia procedures and proper cleaning, disinfection and sterilization of any product, device, or instrument used during the administration of anesthesia at the Ambulatory Surgery Center (ASC) for the prevention and control of infections in patients and staff.

**POLICY:** 

Each anesthesia provider is responsible and accountable for adhering to all infection prevention and control practices and procedures.

### PROCEDURE:

- A. Perform hand hygiene before and after all patient contact, and prior to contact with clean/sterile items and after contact with contaminated items/surfaces.
- B. All items coming in contact with the patient are to be cleaned, disinfected or sterilized and maintained in a clean or sterile manner, as indicated, for critical, semi-critical and non-critical device classes as follows:
  - 1. <u>Critical</u>: items coming in contact with the patient's bloodstream or any sterile body cavity. Items shall be sterile at the time of use. Aseptic technique is to be used to maintain status of the item.
  - Semi-critical: items that come in contact with but do not pierce mucous membranes (e.g., forceps). If intended for single use they are to be disposed of after use. Non-disposable items are to receive, at a minimum, high level disinfection (HLD), be processed per the Steris process or sterilized, dried and stored in a manner that prevents recontamination.
  - 3. <u>Non-critical</u>: items in contact with intact skin but not mucous membrane or bloodstream (e.g., B/P cuffs). These items are to receive low-level (PDI AF wipes) or intermediate level (PDI Superwipes, Cavicide) disinfection.
- C. Monitors and anesthesia machines are to be cleaned and decontaminated with a facility approved intermediate-level disinfectant (e.g., PDI Super wipes, Cavicide) at the end of each case or when contamination occurs.
- D. Disposable single use equipment and supplies are to be used whenever possible. Reusable items must be thoroughly cleaned before disinfection or sterilization.

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- E. Single use items, such as breathing circuits, endotracheal tubes, suction catheters and stylets are to be discarded appropriately after each use. **DO NOT REPROCESS OR REUSE**.
- F. Breathing circuit bacterial filters are used to prevent potential infectious airborne organisms from contaminating the ventilator. Anesthesia machine ventilator bellows are cleaned or replaced during regular service by the preventive maintenance provider.
- G. Fiberoptic Laryngoscope Blades and Handles: The ASC uses a fiberoptic laryngoscope system, which utilizes disposable blades with a hinge design that prevents the folded blade from touching the handle, thus reducing the risk of cross contamination.
  - Laryngoscope blades are disposable.
  - 2. Laryngoscope handles will be cleaned and disinfected as follows:
    - After use, the batteries will be removed by the anesthesia provider and the handle will be seam sterilized the central service staff.
  - 3. Testing of Laryngoscope Light Source/Handle and Blade: When testing of light source and blade is to be done, observe proper hand hygiene practice and remove the blade from the package, attach to a light source and test. Following test, insert blade back into the package and place in clean storage location.
  - 4. The GlideScope A VL: The GlideScope A VL is a combination of a non-sterile, reusable video baton, protected from contact with mucous membranes and non-intact skin by a sterile, single-use Stat (single use baton cover).

Device	Sterile	Use	Spaulding's CDC Classification	Low-Level Disinfection	Intermediate -Level Disinfection	High-Level Disinfection	Sterilization
Video Baton	Non- Sterile	Reusable	Noncritical	Х			
GlideRite Rigid Stylet	Non- Sterile	Reusable	Semi critical			Х	
Monitor	Non- Sterile	Reusable	Noncritical	Х			
Cradle	Non- Sterile	Reusable	Noncritical	Х			

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### I. Cleaning and disinfecting:

- 1. Low Level Disinfection is recommended for the AVL video baton after every patient use. Clean with disinfectant after use and then disinfect for the appropriate contact time per manufacturer's instructions.
- 2. High Level Disinfection is required for the video baton when it is visibly soiled.
- 3. Clean the exterior of the monitor by wiping with IP A (70% isopropyl alcohol), bleach (100ppm), or a mild detergent and water.
- 4. Clean the cradle by wiping with a standard hospital-grade surface disinfectant product.
- 5. Stylet is to be pre-cleaned and then receive High Level Disinfection after use.

#### II. Anesthesia Machine Surface

Anesthesia machine surfaces and knobs are to be cleaned and disinfected between cases with particular attention paid to high touch surfaces as they may be contaminated with pathogens. Surfaces should undergo cleaning and disinfection regularly or after visible contamination with blood and body fluids or other organic matter. Avoid abrasive cleaners.

**WARNING: DO NOT** use chemical agents such as glutaraldehyde, or iodine-containing cleaners.

#### **DEFINITIONS:**

**Disinfection:** destroys most recognized pathogenic microorganisms but might not kill bacterial spores.

**Low-level disinfection:** destroys all vegetative bacteria (except tubercle bacilli), lipid viruses, some nonlipid viruses, and some fungi, but not bacterial spores.

**Intermediate-level disinfection:** destroys all vegetative bacteria, including tubercle bacilli, lipid and some nonlipid viruses, and fungi, but not bacterial spores.

**High-level disinfection:** is defined as complete elimination of all microorganisms in or on an instrument, except for small numbers of bacterial spores.

**Sterilization:** validated process used to render a product free of all forms of viable microorganisms.

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### Spaulding's Classification of Medical Devices and Required Level of Processing

Classification	Definition	Level of Processing	Examples
Critical Device	Device that enters sterile tissues, including the vascular system	Cleaning followed by Sterilization	Surgical Instruments Biopsy Instruments
Semi-Critical Device	Device Contacts non-intact skin or mucous membranes but does not penetrate them	Cleaning followed by High Level Disinfection as a minimum.  Sterilization is preferred	Anesthesia Equipment
Non-Critical Device	Device contacts intact skin	Cleaning followed by Low-Level or Intermediate-Level Disinfection	Blood Pressure Cuffs Stethoscopes
		(for some items cleaning alone is acceptable)	

### **REFERRENCES:**

AANA Recommendations, July 2011.

American Association of Nurse Anesthetists, Infection Control Guide for Certified Registered Nurse Anesthetists, 2012 retrieved from: www.aana.com, on 01/03/2013.

CDC Guideline for Disinfection and Sterilization in Healthcare Facilities, 2008.

http://www.cdc.gov/injectionsafety/IP07\_standardPrecaution.html

http://www.cdc.gov/injectionsafety/providers/provider\_fags\_multivials.html

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