

# ANSI/AAMI, AORN, SGNA & CDC Guidelines on Visual Inspection

## Flexible Endoscopes

**ANSI/AAMI ST91: 2015** Flexible and semi-rigid endoscope processing in health care facilities states in 12.4.2:

“Tools such as video borescopes of an appropriate dimension (length and diameter) may be used to visually inspect the internal channels of some medical devices.”

### **2017 Edition**

#### **AORN Guidelines for perioperative Practices - Flexible Endoscopes**

Recommendations VII

“Flexible endoscopes accessories and associated equipment should be visually inspected for cleanliness, integrity, and function before use, during the procedure, after the procedure, after cleaning and before disinfection or sterilization.

VII.c. Lighted magnification should be used to inspect endoscopes and accessories for cleanliness and damage.  
12.13. 65 **[2: High Evidence]**

An endoscope that appears clean may harbor debris that cannot be seen without magnification. Lighted magnification may increase the ability to identify residual soil or damage.

VII.c.1. Internal Channels of flexible endoscopes may be inspected using an endoscopic camera or borescope. **[2: High evidence]**

Endoscopic cameras and borescopes penetrate the lumen and allow for improved visual inspection.”

**SGNA’s 2016 Standards of Infection Prevention in Reprocessing of Flexible Gastrointestinal Endoscopes** states:

“Visual inspection is recommended to make sure the endoscope is visibly clean (AAMI, 2015; Rutala et al., 2008). It is not a guarantee that decontamination from manual cleaning is complete, but it can be considered a safety stop or “time out” to ensure the endoscope is visually clean before proceeding to the next step of HLD.

- a. Visually inspect for conditions that could affect the disinfection process (e.g., cracks, corrosion, discoloration, retained debris) (FDA, 2009; AAMI, 2015).
- b. Use magnification and adequate lighting to help assist in visual inspection (AAMI, 2015).
- c. Repeat manual cleaning step(s) if not clean”

**The CDC Interim Protocol for Healthcare Facilities Regarding Surveillance for Bacterial Contamination of Duodenoscopes after Reprocessing, March 2015**

“Inspection and manual cleaning: Ensure that the elevator mechanism located at the distal tip of the duodenoscope is thoroughly cleaned and free of all visible debris. The visible inspection is to be done with the elevator in the “open/raised” position as well as with the elevator in the “closed/lowered” position to ensure there is no visible debris above or below the elevator mechanism. Consideration should be given to use of a magnifying glass (e.g., 10x) to improve detection of residual debris around the elevator mechanism.”

# ANSI/AAMI & AORN Guidelines on Visual Inspection

## SPD/CS

**ANSI/AAMI ST79** - Comprehensive guide to steam sterilization and sterility assurance in health care facilities

### 7.5.5 Verification of the cleaning process

“Cleaning encompasses the removal of patient secretions and excretions and of microorganisms from the patient or from handling or water exposure during reprocessing. After completing the cleaning process, personnel should visually inspect each item carefully to detect any visible soil. Inspection using magnification might identify residues more readily than the unaided eye. Visual inspection alone may not be sufficient for assessing the efficacy of cleaning processes; the use of methods that are able to measure organic residues that are not detectable using visual inspection should be considered in facility cleaning policy and procedures”

### 7.2.2 Manufacturers’ written IFU

“The written IFU of the device manufacturer should always be followed.”

#### Stryker & Arthrex Arthroscopic Shaver IFUs

Stryker Shaver Handpieces User Guide	Arthrex Shaver Handpieces IFU
375-701-500, -501 - Formula <sup>®</sup> Shaver Handpiece, 375-704-500, -501 - Formula <sup>®</sup> Hand-Controlled Shaver Handpiece, 375-708-500, -501 - Formula <sup>®</sup> 180 Shaver Handpiece, 275-601-500, -501 - TPS Small Joint	Arthrex Adapteur Power System™ II (APS II) Shaver Handpieces
➤ Page 21 Section 9. Bullet point 1.	➤ INSPECTION AND MAINTENANCE
• Visually inspect the handpiece, including all internal surfaces, for remaining soil. Use an endoscopic camera and endoscope if necessary to see the inner surface of the lumen.	Check device for visible soil. It is recommended that the cannulation be inspected with an illuminated, magnifying scope. Clean the device using the guidelines for manual cleaning if any soil is visible.

## AORN Guidelines for perioperative Practices - 2017 Edition

### INSTUMENT CLEANING - Recommendations #10

**10.a.3** “Lighted magnification should be used to inspect hard to clean areas of devices for cleanliness. “

“An instrument that appears clean to the naked eye may harbor debris that cannot be seen without magnification.

Lipscomb et al compared the results of 202 cleaned and decontaminated instruments by first visually examining them and then examining them using microscopic analysis (ie, episcopic differential interference contrast microscopy). Visual inspection by the researchers showed 37% of the instruments (75 of 202) had a low level of contamination and 4% (8 of 202) had a high level of contamination. The microscopic assessment showed 66% (133 of 202) were severely contaminated and 27% (55 of 202) were moderately contaminated.”

**10. a.4.** “The internal channels of reusable arthroscopic shavers should be inspected using an endoscopic camera or borescope.”