



Avoid the Headlines

- The Seattle Times reports that dozens of patients at Virginia Mason Medical Center were infected with a drug-resistant bacteria known as carbapenem-resistant Enterobacteriaceae (CRE) between 2012 and 2014, a result of contact with contaminated endoscopes.¹
- Approximately **\$9.8 billion** is spent each year treating the top 5 hospital-acquired infections (HAIs) and average as much as **\$45,814 per case**.²
- *Clostridium difficile* infection (CDI) is a leading cause of hospital-associated gastrointestinal illness and places a high burden on our health-care system, with costs of 3.2 billion dollars annually.³
- Massachusetts Hospital Slammed with Endoscopy Infection Lawsuits. *April 11, 2016. Baystate Noble Hospital* located in Westfield, Massachusetts.⁴
- "Surgical site infections due to MRSA led to a 7-fold increased risk of death, a 35-fold increased risk of hospital readmission, more than 3 weeks of additional hospitalization, and more than \$60,000 of additional charges compared to uninfected controls."⁵
- Outbreaks linked to contaminated endoscope- Flexible scopes with small lumens (channels). The FDA says it received 75 Medical Device Reports between January 2013 and December 2014, involving approximately 135 patients.⁶
- *Ofstead, Cori. [The Value of Lumen Inspection, Communiqué](#), May/June 2015, page 76 – 78.*

The Standards

2017 AORN Guidelines – Flexible Endoscopes

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 a. "Failure to correctly clean, inspect, or process an item may lead to transmission of pathogenic microorganisms from a contaminated device and create a risk for patient injury or infection"

VII.c. **Lighted magnification** should be used to inspect endoscopes and accessories for cleanliness and damage. 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."

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."

2016 SGNA Standards of Infection Prevention in Reprocessing of Flexible Gastrointestinal Endoscopes

"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).

2017 AORN Guidelines – Instrument Cleaning

X.a.3 Lighted magnification should be used to inspect hard-to-clean areas of devices for cleanliness.

X. a.4. "The **internal channels of reusable arthroscopic shavers should be inspected using an endoscopic camera or borescope.**"...It is not possible to visually inspect lumens without a device that can penetrate the lumen. **Retained organic material or debris in lumens can lead to patient injury...**The FDA recommends that the inside of the device be inspected and that consideration be given to **using a 3-mm videoscope to inspect the channels of the shave hand piece.**

References

¹ Aleccia, JoNel. "Virginia Mason Failed to Properly Report 'Superbug' Outbreak, State Says." *The Seattle Times*, The Seattle Times Company, 3 Aug. 2015

² Waknine, Yael. "Hospital Infections Cost Billions, Study Shows." *Medscape*, WebMed, LLC, 3 Sept. 2013

³ Surawicz CM, Brandt LJ, Binion DG, Ananthakrishnan AN, Curry SR, Gilligan PH, McFarland LV, Mellow M, Zuckerbraun BS. Guidelines for diagnosis, treatment, and prevention of *Clostridium difficile* infections. *Am J Gastroenterol*. 2013 Apr;108(4):478-98; quiz 499. doi: 10.1038/ajg.2013.4. Epub 2013 Feb 26. Review. PubMed PMID: 23439232.

⁴ Gibb, Gordon. "LawyersandSettlements.com." *Lawyers and Settlements*, 11 Apr. 2016

⁵ Fox, Maggie. "One Superbug Infection Costs Hospital \$60,000: Study." *Reuters*, Thomson Reuters, 15 Dec. 2009

⁶ Office of the Commissioner. "Safety Alerts for Human Medical Products - Endoscopic Retrograde Cholangiopancreatography (ERCP) Duodenoscopes: FDA Safety Communication - Design May Impede Effective Cleaning." *U S Food and Drug Administration Home Page*, Office of the Commissioner, 4 Mar. 2015