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Keeping a Remote Eye on Reprocessing Techniques

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Hospitals are adopting remote video auditing in their endoscopy suites to encourage higher reprocessing compliance rates.

Despite this year's various recommendations and FDA guidance on effective reprocessing, concern about potentially contaminated flexible endoscopes, in particular duodenoscopes, remains. Training, staff turnover, and detailed protocols can make it difficult to ensure proper disinfection. And just last week, FDA released a safety communication [4] about automated endoscope reprocessors from Custom Ultrasonics, urging healthcare facilities to begin using other forms of reprocessing after the agency found the company failed to show proper validation that the device models can wash and disinfect endoscopes at a satisfactory level.

A few hospitals are trying a novel, yet simple tactic to improve the quality of endoscope disinfection—video monitoring.

North Shore-LIJ Health System (to be known as Northwell Health starting in January 2016), which has facilities on New York's Long Island and in the New York City metro area, is adding third-party remote video auditing (RVA) from Arrowsight [5] to its endoscopy suites, as well as its surgery suites, intensive care units, labor and delivery rooms, and emergency departments. The health system and four other major hospitals are in the process of adopting the Arrowsight technology for oversight of its endoscope reprocessing operations, says Arrowsight CEO Adam Aronson.

RVA technology was first used in industrial meat manufacturing, Aronson points out, in order to increase adherence to food safety protocols in an unsupervised environment. He notes that implementing the video auditing technology at a major meat processing company led to a significant increase in compliance rates—to 99.6%—and E. coli core testing rates were reduced by 60%.

Aronson explains that the company's RVA technology is especially well suited for endoscope reprocessing because scopes are placed in a sterilization machine after being reprocessed by

staff. This gives reviewers at Arrowsight's monitoring centers the ability to review video of the reprocessing phase—Aronson says it takes a reviewer five minutes to analyze a 15 minute video—and report their findings of any potentially missed steps or errors to the health system's reprocessing team in real time. That means any need for do-overs of the reprocessing protocol can be completed before the scope is put back into use.

"This is actually a relatively simple application. This is one or two cameras, it is a repetitive process, it is a small number of people that can rise up and achieve great things together in getting really terrific protocols. What it really gets after is the same thing as in the meat industry—it's root cause," says Aronson.

North Shore-LIJ is already familiar with the Arrowsight RVA technology because in 2008, North Shore University Hospital was the first hospital to adopt the technology, using it to ensure compliance with hand washing protocols in its medical and surgical intensive care units. A study published in *Clinical Infection Diseases [6]* showed that hand hygience compliance rates increased from less than 10% before the video auditing to 87.9%

Speaking about the handwashing compliance improvement, Donna Armellino, RN, DNP, vice president of Infection Prevention at North Shore-LIJ, says, "What people think they are doing and what they are reporting that they're doing and what actually is happening are probably two different things . . . it's not the employee that doesn't want to do a certain practice. Sometimes we make it difficult for those employees to actually carry out what we expect."

Both Armellino and Aronson note that a key part of making the RVA technology a success is ensuring it is only used in a positive manner. Staff are never punished for any compliance errors.

"There's an art to deploying this kind of a service and technology in a constructive manner. What it all centers around is non-punitive use of the data. Instead of using the data as kind of a negative force, it's been completely reoriented toward being used as a way to measure excellence and to reward workers . . ." Aronson says.

Armellino agrees. "Once you get staff comfortable with using the technology, there's relatively no issues as far as not wanting it in the environment. I think they have a positive response to it because now they have people listening to them," she says.

Gastroenterologists within the North Shore-LIJ health system are eager for the RVA technology to be adopted for their endoscopes, Armellino says. "It takes one less concern off their minds," she points out.

In addition to the endoscope disinfection application, North Shore-LIJ is deploying Arrowsight's RVA technology to try to get patients in and out of the intensive care unit more quickly, make labor/delivery room safer and more efficient for patients, and make sure emergency department staff remains safeguarded with barrier protection during ongoing Ebola training measures.

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