

On the Radio

Scanner and radio tags help OR nurses keep sponge count on track **BY CANDY GOULETTE**

With years of experience, Sharon Morris, BSN, RN, CNOR, manager of the operating room at Kalispell Regional Medical Center in Montana, knew there had to be a better way to keep track of surgical sponges.

After talking with her husband, the inventive pair came up with radiofrequency ID (RFID) microchips that could be imbedded in the sponges and detected by a handheld scanner.

Tiny RFID tags about the size of a penny are sewn into the sponges. After surgery, a wand-shaped scanner is passed over the surgical site. Any sponges inadvertently left in the patient send out a radio wave with a unique ID code back to the scanner, which can be used from a few inches to several feet away from the patient.

"The idea came from having to deal with sponges on a day-to-day basis," Morris said. "It can be extremely tedious, especially in large blood-loss cases or if there's a shift change during a case. Sometimes, sponges are stuck behind organs or bones and aren't easy to see. The radio frequency is such an ideal way to track them, because it can tell you right away if a sponge is there and where it is."

The system was tested by Alex Macario, MD, MBA, at Stanford University School of Medicine in Palo Alto. Macario and his colleagues tested the system on eight patients undergoing elective abdominal or pelvic surgery. Before each patient's wound was closed, one surgeon placed a tagged or untagged sponge inside the patient while the other surgeon looked away.

The edges of the wound were pulled together to cover the inside of the abdominal cavity, and the second surgeon used the wand to determine the existence and placement of the tagged sponge. The wand detected the tagged sponges every time in an average of less than 3 seconds. The system did not indicate any sponges when none were present, nor did



it fail to detect tagged sponges.

"I'd like to see every patient be scanned after every procedure," Morris said. "If we have an incorrect count, we have to call for X-ray, then wait, keeping the patient anesthetized until we can see for sure if there's a sponge left or not. If it's behind an organ or bone, it's difficult to see. With radiofrequency, it's immediate."

One large OR study estimated a foreign object is left in patients during one of every 10,000 surgical procedures involving open cavities — two-thirds are surgical sponges. For patient safety, OR staff count sponges and surgical instruments before surgery, during surgery and again when the incision is closed.

"The surgical team is still responsible to inspect the surgical site to make sure all sponges are removed," Morris noted. "There will still be nurses counting sponges, but if they have a tool like this, imagine how much safer it will be for the patient." ■

Candy Goulette is regional editor at ADVANCE.

Certification Update: OR Nursing

ADVANCE keeps operating room nurses and nurse anesthetists informed on how to gain certification and recertification in their respective fields through the Competency & Credentialing Institute (CCI) and the American Association of Nurse Anesthetists (AANA).

CCI Contact Info

- Call 888-257-2667;
- visit www.cc-institute.org; or
- e-mail info@cc-institute.org.

CCI in the News

The Competency & Credentialing Institute (CCI) released its latest educational resource for OR nurses, *Perioperative Pharmacology Reference Book and Pocket Guide*, in March. The guide is available online at www.cc-institute.org/stor_pharm.aspx.

The reference book consists of an outline of common medications administered in the surgical setting, as well as a glossary, list of review questions and case

studies. The outline details specific indications, dosing, administration guidelines, contraindications and side effects or adverse reactions of all listed drugs.

The pocket guide is designed for nurses to use as a daily reference for all information presented in the book, according to CCI.

"One of the most important roles certified nurses play is as a patient advocate, promoting safe care throughout the surgical process," said Shannon Carter, CEO at CCI. "This guide fills a void and helps ensure OR nurses are knowledgeable about the medications their patients receive."

Copies can be ordered by calling 888-257-2667.

AANA Contact Info

- Call 847-692-705;
- visit www.aana.com; or
- e-mail info@aana.com.

There have been no changes or updates regarding credentialing at AANA since ADVANCE's last certification update.

— Joe Darrah