Reducing the Risk of Retained Foreign Objects During Surgery

Arguably the most important moment of a surgery is the moment that the patient awakens from the procedure in a much-improved condition. But what happens when that patient wakes up from surgery only to find that his or her health is now impaired by a retained foreign object? According to estimates published in the New England Journal of Medicine, the incidence of retained foreign objects—which can lead to inflammation, obstruction, perforation, sepsis, and even death—can be as high as 1 in 1,500 surgeries.¹

Before a surgical procedure begins and prior to closing, a manual count of all items used, including sponges, needles, towels, and instruments, must be performed and documented. Most hospitals and surgical centers now use small metal threads embedded in sponges and towels to help them locate retained foreign objects with a portable x-ray. The surgical staff keeps diligent count of sponges and towels—a necessary best practice that can be time-consuming—but errors can still occur. In fact, in a majority of cases with retained sponges, the nurse's count appeared accurate.

The subsequent surgery to remove the item increases the length of hospitalization and delays recovery. These surgeries are not reimbursable by insurance companies, Medicare, or Medicaid, as they are considered a rebuttable presumption of negligence, otherwise known as a res ipsa loquitur case. Defending these types of claims is very difficult and often results in the health care provider's name being recorded with the National Practitioner Data Bank.

New technology is now available to prevent retained foreign objects

Medical RFI (radio frequency identification) chip technology, approved by the U.S. Food and Drug Administration, is now available and automatically tracks sponges and surgical towels used during a procedure. If the count is not correct, a wand-shaped device is waved over the surgical site to identify the location of the retained item. This device saves time and does not expose the patient to unnecessary radiation, as is the case with a portable x-ray device.

The new RFI technology requires additional cost, so some hospitals reserve it for high-risk cases, such as patients undergoing emergency surgery, obese patients, patients having cesarean sections, and patients having surgery on more than one area of the body.

Hospitals and surgical centers that have adopted the new RFI technology report:
- Improved patient outcomes
- Reduced preventable claims of retained sponges and/or towels
- Additional time for surgeons to complete procedures

Note: RFI technology does not detect clamps or other surgical instruments. Documented counts must be performed on all items used during surgery.

Reference: