Tips on making the most of instrument repair

Here is some advice from experts on a program to ensure clean, functioning instruments.

Take a proactive approach
Sharp, well maintained instruments are critical to patient safety, surgeon satisfaction, and smooth OR case flow.

Kerrison rongeurs, for example, “should punch cleanly, not rip, tear, or pull,” says Rick Schultz, CEO of Spectrum Surgical Instruments, a repair service.

How common are instrument defects?
Researchers from Japan collected data on 19,474 consecutive operations based on orders for instrument repair and reports of near-miss accidents. They identified 1,775 nonfunctioning instruments, with 112 found during surgery. More than half were instruments for tissue grasping, bone boring/gnawing, or endoscopic surgery. Wear and inappropriate use were 2 major causes of defects. Two near misses in endoscopic surgery were potentially critical, though the patient recovered uneventfully (Yasuhara H, et al. Surgery. 2012;151:153-161).

Testing 226 laparoscopic instruments, researchers found insulation failure in 19% of reusable and 3% of disposable instruments. Of reusable sets tested, 71% had at least one instrument with insulation failure. Findings were similar in hospitals that routinely checked insulation and in those that did not (Montero P N et al. Surg Endosc. 2010;24:462-465).

Educate the staff
“Staff competency goes hand in hand with a proactive repair and refurbishment program,” advises Rose Seavey, MBA, RN, CNOR, CRCST, CSPDT, of Seavey Healthcare Consulting, Denver. She recommends contracting with a repair company that will help educate the staff regularly on instrument care and handling.

Involve SPD staff
Engage the staff in the sterile processing department (SPD) in performing instrument inspections both in the decontamination area and during tray assembly.

Budget by buckets
If you don’t already do so, break the repair budget into categories for standard surgical instruments, minimally invasive instruments, powered equipment, and flexible endoscopes.

The categories make it easier to track spending, notes Schultz. If the budget is bundled, and repairs are needed for several flexible and rigid scopes, there may be little left for standard instruments.

Expect regular reports
What regular reports does the vendor provide?
Seavey suggests asking: “Do the reports have enough information to tell me what has been spent on repairs in the past 3 months and why? Can they break it down into

Acting to prevent instrument loss
“It takes a village to prevent instrument loss,” says Barbara Strain, MA. “Everyone has to watch for this. It’s not just SPD, not just the OR, not just surgical supply or the instrument company. It’s a whole program.”

The main tactic at the University of Virginia (UVA) Medical Center, where she is director of supply chain analytics, has been to share data on loss frequently with the OR and SPD staff at in-services and staff meetings.

“I’ve found that the more you involve the OR, the more successful you are,” agrees Scott Bereki, CRCST, manager of sterile processing at St Joseph Hospital in Orange, California. He shares data with the OR frequently. One often-lost item was a $1,000 nonstick bipolar forceps. He would report, for example: “In the past year, we have spent $32,000 replacing lost bipolar forceps.”

The reports have made a difference. In the past 3 months, he says, he hasn’t had to order any.

“Sterile processing is often blamed, and sometimes we are responsible,” Bereki says. “But a large portion of the loss is in the drapes when rooms are cleaned and turned over fast.

“We focus on suction tips, bipolar forceps, Allis clamps—things that tend to be forgotten at the end of a case because you are trying to get the patient out of the room.” With this approach, “we have really shown a reduction in loss,” he says.
buckets like sharps repairs, orthopedic repairs, and so forth?
   Can the data be used for trending and QI?”

**Track repair data**
Set up a way to track data on repairs. If you have an instrument tracking system, and your trays are barcoded, you could set up a “location” in the tracking system to scan sets out for inspection and maintenance. That will enable you to produce reports.
   “You will want all of your major and orthopedic sets refurbished at least once a year,” Seavey says.

**Understand repair pricing**
Make sure you understand the repair company’s pricing structure up front, Seavey recommends. The price list may state the price per instrument.
   “But it may not tell you it will cost 5 times more to replace the jaws if it’s a gold-handled needle holder,” she notes.

**Determine the timing**
As the customer, you, rather than the repair company, should determine when and how often the repair van will be at your hospital. Service may be more limited in rural areas.
   If the contract is for a flat rate, “I would want someone at the facility a majority of the time, not just 7 am to 3 pm Monday through Friday,” says Seavey. “On weekends, will they at least be on call if a set goes down?”

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*Broken needle holder jaw.*

*Bioburden on Kerrison rongeur before and after cleaning and refurbishment.
Photos courtesy of Spectrum Surgical Instruments.*