Instrument Repair Secrets That Can Help Deliver Better Outcomes, Greater Value

BY RICK SHULTZ

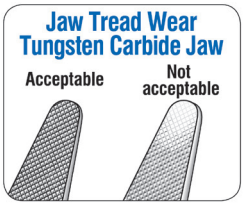
Surgical instrument repair and maintenance is a vital part of controlling surgical instrument expenses. We all know our automobiles need oil changes, tire rotations, brake inspection and alignments; those standard preventative maintenance functions keep the car running safely and reduce future repair costs. The same holds true for the maintenance and repair of surgical instruments.

Basic preventative maintenance guidelines

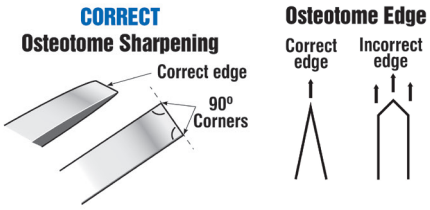
Determine the most frequently-used (top 50) trays.

1. Sharpen those trays' scissors two to three times per year.

2. Inspect and re-jaw worn needle holder jaws.



3. Sharpen osteotomes and rongeurs one to two times per year or as needed.



4. Sharpen Kerrison rongeurs two to three times per year.

Remember, every surgery starts with a scissor and ends with a needle holder.

Following these basic preventive maintenance guidelines is a basic, low-budget repair strategy; however, in the long-term, this strategy will save the hospital money.

Evaluating a new repair vendor

Before partnering with an instrument maintenance and repair company, take the following into careful consideration:

- Require experienced repair technicians. Many repair vendors do not have in-house training beyond the basic repair. Do not allow a rookie repair technician to learn the art of instrument repair on your valuable instrument inventory. Be sure to verify experience.
- Fully understand the pricing. Many vendors have unclear pricing structures or one price for on-site repair and a second price (50% higher) for shipping to an off-site repair center. This practice is very common, especially with only one repair technician in the vehicle (and that one technician may lack of training/experience). Be sure to get in writing the cost for off-site repairs.
- Require in writing the procedure for a repair vendor to replace damaged or lost instruments during the repair process. This can – and does – happen, so a procedure must be in place.

The more repair technicians on-site, the better

If only one repair technician is in the repair vehicle, the hospital receives less value and lower quality service (see Figure 1 on the following page).

$500-$1000 per day rate – beware!

This type of repair program is growing

SERVICES OFFERED	SINGLE TECHNICIAN	MULTIPLE TECHNICIANS
Free instrument inspection	No time to complete	Yes
Complicated/specialty repairs	No time to complete	Yes
Remove/reapply color coding tape	No time to complete	Yes
In-service training	No time to complete	Yes
Complete all trays in a surgical service	No time to complete	Yes
Value-added services	No time to complete	Yes
Needle holder re-jawing	5 needle holders/hour 40 in 8 hours	15 needle holders/hour 120 in 8 hours
Scissor sharpening	10 scissors/hour	30 scissors/hour

Figure 1

in popularity and, many times, it benefits the repair vendor, not the hospital. To make this day rate program work for the hospital, the following points/questions must be addressed:

- What does a day rate include?
- How many technicians will be providing the service (two is good, three is better)?
- Which trays will be serviced?
- Which types of repairs will be done per tray?
- Will all instruments be inspected and refurbished?
- Will defective tape be removed and reapplied?
- Who selects the trays to be serviced?
- Which day will the repair team arrive and how many hours will the repair vehicle be on location? Be sure to get this in writing.
- What repair/preventative maintenance will be performed on each instrument?
- Does the day rate include specialty trays such as Lap, Neuro, Spine and Ortho?
- Will the same technicians be assigned to your account?
- Will all instruments taken off site have a pre-established repair price list?

Ensure that any instrument shipped/taken back to the national repair center will not be calculated in this day rate program (commonly, repair vendors are charging a super-premium price for off-site repairs).

Capitated rate repair programs

Many times, hospitals enter capitated rate repair program agreements to eliminate fluctuating monthly repair costs. This approach satisfies the accountants and the budget but, many times, specialty trays are not included in this program and do not get serviced due to their high repair and maintenance cost. Is the repair vendor guaranteeing a savings with the capitated program? If yes, understand and challenge the math. Many times, the repair vendor will take the total repair spend from the previous year and divide by 12 (monthly) to come up with the capitated number. The question that must be asked is what's in these numbers (e.g., instruments, power equipment, endoscopes, etc.)? It is critical for the hospital to know what is included in the capitated calculation and, most importantly, which surgical instruments trays are in the program.

Annual capitated rate

- What are the guaranteed savings?
- Which trays are included?
- How often are the trays serviced?
- Which specialty trays are included?
- Is there a rebate if lower volume is completed under the cap?
- What if the required repairs exceed the capitated rate?
- Track how much work actually is performed (and itemize by tray).

Back-up/spare instruments

A facility's surgical instrument repair vendor should do a back-up board inspection three times per year for free as a value-added service. The repair vendor

must routinely inspect and service the instrument back-up board. The back-up board's instruments should be treated with the same importance as an instrument set. The repair vendor should:

- Test all scissors for sharpness;
- Inspect all needle holder jaws for tread wear;
- Remove floor-grade (economy)/ Pakistan-made instruments from the board;
- Check all hemostats for cracks;
- Check all springs;
- Check all other instruments for overall function; and
- Provide this service at no added cost.

Q What are the technical standards for scissor sharpness testing and Rongeur and Kerrison testing?

A To test scissors 4 ½ inches and shorter: Use a yellow exercise band (.006 inches thickness). To test scissors longer than 4 ½ inches: Use a red exercise band (.008 inches thickness). To test Rongeurs and Kerrisons: Use 100-pound card stock.

RICK SCHULTZ, the Instrument Whisperer™, is an author, inventor and lecturer, and the retired Chief Executive Officer of Spectrum Surgical Instruments Corp. He served as contributing editor of IAHCSMM's Central Service Technical Manual (Fifth, Sixth, Seventh, Eighth Editions). Rick authored the textbooks *Inspecting Surgical Instruments: An Illustrated Guide and The World of Surgical Instruments: The Definitive Inspection Textbook*, which was released in June 2018. Schultz was named IAHCSMM's Educator of the Year in 2002, and in 2006, was named American Hospital Association Educator of the Year. In 2007, he was named by Healthcare Purchasing News as one of the 30 Most Influential People in Healthcare Sterile Processing. Schultz currently provides educational lectures to Central Service professionals at IAHCSMM's annual conferences and conducts operating room personnel lectures across the country.