When its instrument repair contract was up for review last year, the University of Virginia (UVA) Medical Center decided to look at the bigger picture. Rather than evaluating vendors solely on price, it looked for a company that was willing to partner in meeting its goals.

The evaluation of 6 vendors considered their ability to offer a comprehensive program to improve instrument management.

“We let them know it is not business as usual at UVA. We wanted to do something different,” says Barbara Strain, MA, director of supply chain analytics.

She says the vendor selected, Total Repair Express (TRE), met the overall criteria and offered a broad-based program, including an on-site lab staffed by its personnel, for a flat monthly rate.

The model is different than traditional arrangements, which include sending instruments to a repair center or contracting for a mobile van service.

These are steps UVA used to evaluate instrument repair options for its 31-room main OR and 6-OR outpatient surgery center. The combined surgical volume is about 27,500 cases a year.

Examined instrument data
The UVA based its decision in part on 2 metrics:

- annual spending on replacement instruments
- percentage of instrument trays reviewed each year for instrument maintenance and utilization.

A key data source is the instrument tracking system, SPM from Materials Management Microsystems (www.mmmicrosystems.com).

The system’s database includes all of the instrument sets and recipes for set contents. Instrument pans are bar coded, and pans are scanned so they can be tracked through reprocessing. Case carts, also bar coded, are scanned into the OR where the set will be used.

A location was developed in the tracking system for signing out trays for repair so UVA could monitor that as well. Each instrument repaired has a special designation etched on it. Information is logged into the company’s database as well.

Set objectives
UVA’s objectives for instrument management were:

- Reduce overall expenditures on instrument repair and replacement.
  “Our rule of thumb when starting a new project is that we want at least a double-digit savings, 10% if not more,” says Strain.
- Establish an effective method to evaluate the instrument inventory:
  — Did the hospital have the right trays?
  — Which trays and instruments weren’t being utilized?
  — Could trays be consolidated?

The team decided to aim to have 70% to 80% of its sets reviewed annually, up
from the current 50%, realizing that might not be achieved in the first year.

The team realized it might actually spend more on repair initially because more sets would be inspected.

**Established selection criteria**

In addition to the objectives, the team set these other criteria for evaluating vendors:

**Extent of repair service**

Does the service include surgical instruments only, or are flexible endoscopes included?

UVA focused on surgical instruments initially but wanted a full-service company that can service endoscopes in the future if the hospital decides to expand the contract.

**Reports provided**

What reports does the company provide? The hospital asked for sample reports to illustrate what it could expect for monitoring progress.

The selected company is “report rich,” Strain says. “They catalog all of the instrumentation being repaired and how many sets were reviewed.”

**References**

Will the company provide references?

UVA asked the company to provide references for other hospitals where it has achieved improvements and savings.

Says Strain, “We called the references and asked, ‘Did this occur? How did you work with them? How did you monitor the progress?’”

**Pilot evaluation**

Will the vendor of choice conduct a mini-evaluation on site before the contract is awarded?

For UVA’s mini-evaluation, the vendor brought its mobile van on site. Sets from several clinical services were labeled for review and servicing. Perioperative staff gave feedback on the quality of the serviced sets.

**Personnel qualifications**

What are the qualifications of personnel who will service the instruments?

UVA wanted to know that the personnel who would staff the in-house lab were as qualified as the personnel the company provided for the mini-evaluation.

**A new model**

The contract for the in-house lab took effect in May 2011. Selecting and renovating the space for the lab took about 3 months. In the meantime, the company supplied a mobile van 5 days a week.

The reason for choosing the on-site lab model, Strain says, is that company personnel would be at the hospital consistently.

“We wanted them to become the face of our instrument program, working alongside staff in SPD, the OR staff, and the surgeons, really knowing how we could do things better as well as to manage the repair piece,” she says.

**Ongoing review**

To evaluate progress, a regular business review meeting is held, which is UVA’s standard practice for any major contract. In the review, the team considers:

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**Today Show highlights dirty instruments**


The focus was on an outbreak in Texas following arthroscopic surgery.

The infections were attributed to bacteria from tissue retained in the arthroscopic shaver and inflow/outflow cannulas.

Problems found:

- Cannulas were not cleaned with brushes, as manufacturer’s instructions recommend.
- Shavers had retained tissue, even though they were cleaned following the manufacturer’s instructions.
- Flash sterilizers were used up to 6 times a day during the outbreak period, and 2 cases had instruments that had been flash sterilized. Logs were not always complete.

It’s not known how many surgical infection outbreaks occur, the report noted, because only about half the states require reporting.

The show also reported that, except in New Jersey, sterile processing technicians don’t have to be licensed, and many hospitals don’t require certification.

The outbreak was reported by Pritish Tosh, et al, in Infection Control and Hospital Epidemiology (2011;32:1179-1186).

Watch the video: http://todayhealth.today.msnbc.msn.com/_news/2012/02/22/10471434-today-investigates-dirty-surgical-instruments-a-problem-in-the-or
• Progress toward the savings target. Is the hospital buying fewer replacement instruments since the contract began?
• Is there an increase in the percentage of sets being reviewed?
  “A good company will produce a schedule for what sets it is taking out of service,” Strain notes. The UVA team monitors to make sure the company is keeping up with the schedule.
  “We are starting to make headway in the percentage of sets maintained,” she says. Spending for instrument purchasing and repair costs is also on the decline.
  Finding time for another meeting is difficult, Strain acknowledges.
  “But a regular review is critical to making sure the project is on track.
  “You have to make sure everyone is on board. That’s where leadership comes in.”

—Pat Patterson