

Surgical Asset Management in Action: A Collaborative Case Study with St. Luke's University Health Network

The Partnership

In 2010, St. Luke's University Health Network approached Aesculap, Inc. to enlist their expertise and investigate opportunities to improve the efficiency of their operations across their multiple hospital facilities. Aesculap consultants worked with hospital personnel, studying St. Luke's sterile processing operations and surgical instrument inventory to uncover solutions that would increase both clinical and fiscal value.

The Process

Aesculap applied its CliniFiscal™ program of consulting services to St. Luke's. Consultants first identified several areas for improvement, including OR turnaround times, immediate use steam sterilization rates, and general protocols for cleaning, storing, transporting and repairing instruments. To maximize savings and service opportunities, Aesculap recommended that St. Luke's optimize and standardize its hospitals' surgical instrument fleet, implement alternative sterilization systems, and develop an ongoing tracking and monitoring process. Aesculap provided St. Luke's with various cost-effective solutions over both the short term and long term, and has continued to work with St. Luke's for training and guidance.

The Outcome

Five years since the relationship began, St. Luke's has enhanced instrument and service quality, and increased communication within hospital departments. St. Luke's reduced waste through downsizing its surgical instrument inventory by 17 percent, saving at least \$150,000 in annual reprocessing costs without affecting patient service. Furthermore, the need for immediate use steam sterilization and reprocessing of instruments declined dramatically, improving staff efficiency and extending instrument lifespans.

Proven Benefits for St. Luke's

- Cost savings
- Faster OR turnaround
- Safety improvements
- Compliance improvements
- Operational efficiencies
- Inter-departmental cooperation
- Improved patient quality of care

The CliniFiscal Program

In working with hospitals and health systems around the world, Aesculap recognizes that the surgical instrumentation fleet is an organization's most vital mobile asset. It's the key to quality patient care and a vital component of hospital revenue.

But because it affects so many aspects of a health system, it can have a negative or positive effect on four critical areas: **Revenue, Risk, Reputation and Regulation.**

Traditional solutions center on either clinical quality at impractical costs, or financial cost-cutting that sacrifices service quality.

Aesculap has a different way—the CliniFiscal method. Following a five-step process, it's the only end-to-end Surgical Asset Management model specifically designed to balance both the clinical and fiscal outcomes. When implemented, the payoff comes in 20 Points of Clinical and Financial Value that are measurable, sharable and bankable.

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—Joe Pinto, Vice President - Network Operations

Bringing Value to Patients

In 2010, St. Luke's University Health Network approached Aesculap with a challenge.

The network of five hospitals in Pennsylvania's Lehigh Valley and surrounding counties was expanding, and leaders wanted to ensure they understood how their processes could be most efficient across a growing hospital network. They especially wanted to closely examine their sterile processing department (SPD), because the fundamental necessity of SPD operations meant that improvements there could lead to enhancements in many other departments.

At the same time, there was a larger realization that healthcare was fundamentally changing. St. Luke's wanted an objective, expert source to offer a candid evaluation of how their operations could improve in step with the evolving healthcare delivery model.

"We could see the train coming," said Dr. Marc Granson, Chair of Surgery for St. Luke's. "How the U.S. health system was providing healthcare services was unsustainable. We needed to figure out how to bring more value to patients."

The challenge was clear—St. Luke's needed long-term assistance to ensure efficiency and fiscal effectiveness, while also sustaining, and perhaps improving, their positive clinical outcomes.

Aesculap's U.S. headquarters is also located in the Lehigh Valley. The two organizations had worked together for decades, but St. Luke's wanted something beyond the standard, vendor-customer transactional relationship. They wanted a true collaborative working relationship.

"We really needed someone with instruments expertise and science-based backgrounds who could look at what we're doing with fresh eyes," said Anita L. Buono, RN, MSN, NE-BC, Director of Surgical Services for St. Luke's main hospital campus in Bethlehem, Pennsylvania. "We couldn't do that ourselves."

ROI Opportunities

Aesculap began assessing St. Luke's hospital operations with the first step in its CliniFiscal model, the QuickScan™ assessment services—a low-risk, low-investment analysis of the state of instrumentation, reprocessing practices and opportunities for improvement within sterile processing and the OR.

The QuickScan program includes a four-day, on-site examination, goal-setting sessions with OR and central service management teams, facility tours, staff interviews and instrumentation analysis. "They looked at things we had never even dreamed of, like the relationship between the characteristics of our water and the lifespan of our instruments," said Dr. Granson.

Indeed, one of Aesculap's findings was that if St. Luke's used a different purification process for the water used to clean surgical instruments—essentially filtering out certain minerals—it could extend instrument lifespans and protect St. Luke's investment in its instrument inventory. Both St. Luke's process and the one recommended by Aesculap yield sterile instruments, but Aesculap's process increases a return on a hospital's investment without sacrificing sterility.

Consultants also carefully evaluated OR turnaround times, immediate use steam sterilization rates, instrument storage, instrument transportation and overall instrument quality.

The entire QuickScan process, from initial engagement to providing results, was completed in two weeks. "I didn't know what to expect, but it was painless," said Dr. Granson.

Immediate Results

As a next step, Aesculap analyzed and optimized St. Luke's instrument assets and processes. The QuickScan assessment revealed a number of opportunities for improvement over both the short term and long term, and Aesculap's consultants provided a variety of solutions.

First, by analyzing the instrument fleet at St. Luke's two main hospital campuses, Aesculap found that many instruments in surgical sets were rarely used. That meant staff members frequently wasted time and resources by reprocessing unused instruments, simultaneously degrading those materials more quickly than necessary. Reevaluating and organizing those sets would reduce waste, create efficiencies by freeing staff time to manage other tasks, and decrease the potential for errors by limiting variables in assembling surgical sets.

Aesculap consultants ultimately found that St. Luke's had 3,000 more instruments in its inventory than were necessary for optimal performance. Considering the average time and cost of reprocessing a single instrument is roughly 7 seconds and 51 cents¹, by reducing its instrument inventory to the most efficient level, St. Luke's was able to save an estimated 594 hours of reprocessing time a year, resulting in approximately \$156,000 in annual savings.

Other noteworthy improvements included shifting to reusable rigid containers to decrease costs and unnecessary reprocessing, reducing immediate use steam sterilization rates by 63 percent with the goal of improving instrument lifespans without affecting sterility, implementing stronger policies regarding loaner instrument sets, and streamlining inter-facility instrument transport.

Long-Term Benefits

Another result of this process has been a better organizational understanding of the vital role SPDs play in the larger healthcare enterprise.

"Our sterile processing department is a major linchpin for the engine that is the OR, but if the SPD is not running to full capacity, it affects quality and efficiency elsewhere," said Joe Pinto, Vice President of Network Operations.

That realization led to better teamwork throughout St. Luke's as well. "I would say for sure there is much better collaboration between OR nurses and SPD professionals," said Dr. Granson. "The SPD adds incredible value, and I just understood that in the last few years."

Aesculap's coaching on the benefits of standardizing equipment now transcends the SPD. Stakeholders look for opportunities to standardize all sorts of other facility processes, making it simpler to rotate staff between multiple facilities and to provide uniform patient care.

"We are constantly asking, 'Is there an opportunity to standardize more than just equipment? Can we standardize policies and procedures?'" said Pinto.

In early 2015, St. Luke's held the first sterile processing steering committee meeting to monitor progress on the various SPD-focused initiatives underway. It is just one show of proof that St. Luke's now views Surgical Asset Management as a long-term, sustainable effort to improve fiscal and clinical outcomes.

"The ultimate goal is to improve our quality, and we've already seen amazing results," said Pinto. "I've been very impressed with Aesculap. In my mind, our relationship is what we want to emulate for all other corporate relationships."

¹Walker Stockert, Emily, and Langerman, Alexander. "Assessing the Magnitude and Costs of Intraoperative Inefficiencies Attributable to Surgical Instrument Trays." Journal of the American College of Surgeons (2015): 1-10. Print.