Operate with Greater Precision™

Minimizing Waste Throughout the Perioperative Process

Surgical Asset Management

AESCULAP®

SAM

Surgical Asset Management: Optimization Achieved

SITUATION

A large teaching hospital and Level 1 trauma center team engaged Aesculap to assess its sterile processing practices as well as surgical instrument condition. The hospital was seeking opportunities to increase operational efficiency, enhance staff competency, and improve audit preparedness.

STRATEGY

Aesculap's Surgical Asset Management team conducted a baseline assessment of the facility's highly utilized sets. We also facilitated individual sessions with physicians and other key OR staff members from multiple specialities to review their surgical instrument sets and identify opportunities for optimization.

We found that the facility's surgical instrument fleet consisted of 42 different vendors, had instrument pattern inconsistency and overloaded sets. In addition, 66% of the instruments had surface damage, and were either in need of repair or beyond repair.

Based on these findings, the Aesculap Surgical Asset Management team presented recommendations to the facility which were implemented.

RESULTS

As a result of the implementation, the healthcare facility realized a $414,470 reduction in reprocessing costs and a 520 reduction in working hours per year.

KEY FINDINGS*

66%

Instruments Were Damaged, in Need of Repair or Needing Replaced.

42

Different Instrument Vendors

78

Number of Set Titles Optimized

OPTIMIZATION RESULTS

2,674

Instruments Removed From Sets

26%

Annual Reduction in Instruments Processed

$414,470

Annual Reduction in Reprocessing Costs

520

Annual Working Hours Reduction

*Data on File

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Insights into Hospital Waste and Inefficiencies

Reducing Waste in the U.S. Healthcare System

Waste in the U.S. healthcare system is $760 billion to $935 billion annually, or 25% of total medical spending[1]. Healthcare organizations are increasingly applying lean principles to operations in order to achieve the patient care, operational efficiency, and staff satisfaction goals of the **Quadruple Aim.**

The multitude of activities associated with processing, case preparation, setup, and breakdown of surgical instruments is considerable. Utilization rates of surgical instruments range from **2%** to **74%** with an average maximum utilization of **29%.*** Key opinion leaders in this field have estimated an average cost of **$.35 – $3.19**[2] to reprocess a single instrument. It is also estimated that on average and with clinical acceptance, **17%** of instruments can be removed form surgical sets. Given that 100% of instruments in opened trays require reprocessing, it's not hard to comprehend the amount of waste that is being generated.

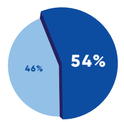
Extensive analysis of our projects revealed an average of **128** different instrument manufacturers per site. This proliferation of vendors contributes to overloaded instrument trays, adds complexity to the perioperative process, and invites errors into the system.

17%
AVERAGE REDUCTION OF INSTRUMENTS

Quality Surgical Instrument Readiness is Critical to Patients

Operating room services account for almost one third of healthcare spending and hospitals continuously seek opportunities to control expenses, reduce waste, and improve cost per case ratio. Operating room delays and interrupted surgeries are not only frustrating to clinicians but can also cost from $7 to over $100 per minute[3]. Equipment malfunction is the leading cause of OR delays[4]. An optimized sterile processing function incorporating an adequate instrument inspect, repair, and replace activity can minimize intraoperative instrument defects.

Of an analysis of nearly 3 million instruments, Aesculap has found that **54%** of those instruments were not fit for surgery. Additional analysis of water or steam showed that **95%** of facilities have some form of water or steam quality issues. Among other things, poor water quality can reduce the efficacy of detergents in removing soil from instruments. This can potentially create a harbor for biofilm on instruments generating risk of cross contamination.



54%
INSTRUMENTS NOT FIT FOR SURGERY

95%
FACILITIES WITH WATER OR STEAM QUALITY ISSUES

1 Waste in the US Health Care System: Estimated Costs and Potential for Savings William H. Shrank, MD, MSHS1; Teresa L. Rogstad, MPH1; Natasha Parekh, MD, MS2
2 Cost Savings of Standardization of Thoracic Surgical Instruments: The Process of Lean Kyle H. Cichos, BS, Paul L. Linsky, MD, Benjamin Wei, MD, Douglas J. Minnich, MD, Robert J. Cerfolio, MD [Ann Thorac Surg 2017;104:1889-95]
3 Childers CP, Maggard-Gibbons M. Understanding costs of care in the operating room. [published online February 28, 2018] AMA Surg. doi:10.1001/jamasurg.2017.6233
4 ECRI Institute PSO Database 2018
*Data on file

SAM SURGICAL ASSET MANAGEMENT METHODOLOGY

Comprehensive surgical asset management improves efficiencies and surgical instrument quality throughout the perioperative workflow. Aesculap utilizes a unique and methodical process created to balance clinical, operational, and financial outcomes.

Expert consultants apply industry best practices and process improvements to enhance the various aspects and overall lifecycle of surgical instruments as it pertains to Central Sterile Department and Operating Room utilization. Aesculap's consultants not only identify the root cause, but also assist the customer with hands-on implementation of customized solutions.

Our proven, systematic, approach ensures maximum understanding of the customer's situation. With in-depth data analysis and customer engagement from the outset through expeditious and comprehensive project implementation, Aesculap SAM engagements deliver customer value timely and completely with sustainable results.

Program Benefits

- Prepare operations for compliance with industry standards
- Avoid wasted hours and dollars from reprocessing unutilized instruments
- Ensure the Operating Room gets the surgical assets they need on time
- Reduce operational and clinical variation

Programs at a Glance

QUICKSCAN®

Aesculap consultants conduct an onsite analysis of instrumentation and reprocessing practices resulting in a roadmap your CSD team can implement to meet the ever-increasing demands of the Operating Room. The evaluation includes a baseline assessment of process compliance, instrument condition and water and steam quality.

ASSET ANALYSIS

Qualifies and quantifies your surgical instrument fleet including the generation or verification of instrument set count sheets. Aesculap consultants perform an expanded, on-site instrument fleet analysis tailored to meet your facility's needs. It may include:

- Inventory of instrument set titles
- Inventory of instrument set contents
- Inventory of backup stock

ASSET OPTIMIZATION

Facilitated sessions with surgeons and OR staff to collectively standardize and optimize surgical instrument configurations driving efficiencies throughout the perioperative process while generating cost savings via waste reduction and the right sizing of your instrument fleet.

A collaborative, clinically focused process which enables your organization to achieve six unique dimensions of asset optimizaiton within your facility or health system:

- Remove
- Correct
- Standardize
- Restructure
- Right Size
- Containerize

PROCESS OPTIMIZATION

Continues the improvement of quality, efficiency and value of surgical assets within the CSD and the OR. Consultants will assist with the implementation of outlined recommendations to help you achieve your goals and apply proper surgical asset management practices.

FLEET MANAGEMENT

Owns, maintains and manages the surgical assets for a monthly fee ensuring surgical instrument tray uptime without upfront capital requirements. This includes: Instrument set inventory management, condition monitoring and asset repair, refurbishment and replacement as well as Optimization Sustaining Programs such as:

- Tracking
- Reporting
- Key Performance Indicators

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