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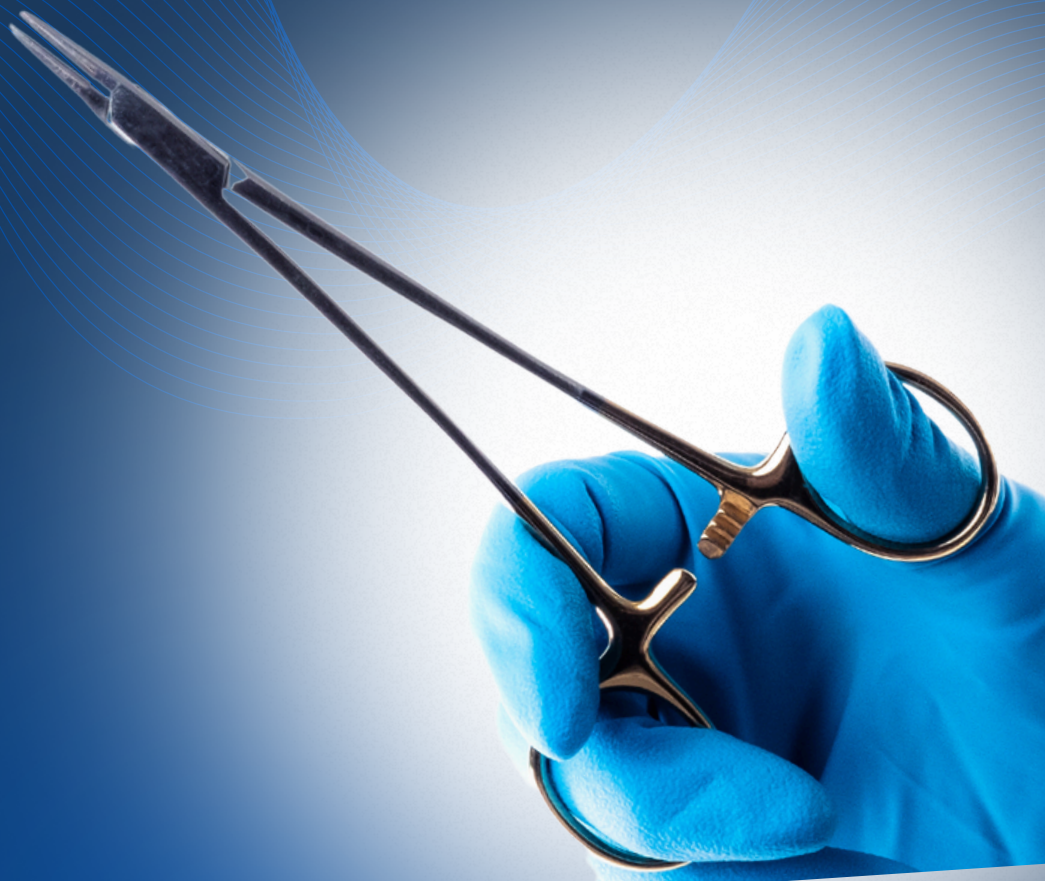
2025

SURGICAL ASSET MANAGEMENT

INDUSTRY BENCHMARK REPORT

INSIGHTS FROM 100+ SPD AND OR LEADERS



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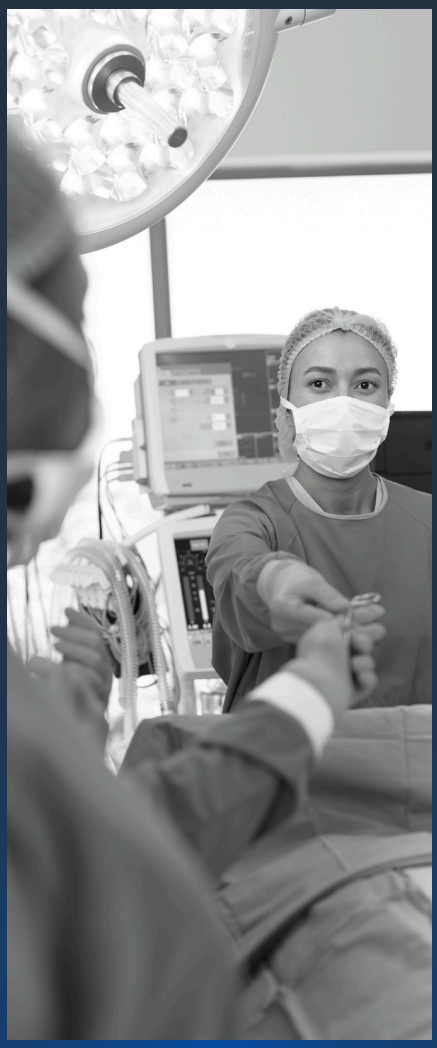


Behind every surgery is a critical team you might be overlooking.

Sterile processing teams are a first line of defense in patient safety. They ensure every instrument is clean, compliant, and ready for the operating room. Yet, their work often happens out of sight and out of mind. When support for these teams falls short, the entire surgical workflow and the management of surgical assets that power it are put at risk.

That's why the 2025 Surgical Asset Management Industry Benchmark Report, created by Aesculap and Ascendco Health, sought to better understand this department. We wanted to elevate the voices of a vital team that too often goes unnoticed, reveal what happens when their needs are ignored and highlight opportunities to drive meaningful change across the entire health system.

These findings from **100+ SPD and OR leaders** make the case for why investing in surgical asset management and the teams who drive it is no longer optional.

INTRODUCTION & OBJECTIVES

The goal of this survey was to gather insights from sterile processing professionals to better understand current challenges, tracking practices, and future trends in the field. By identifying these factors, the survey aims to highlight areas where process improvements and efficiencies can be achieved.

IMPORTANCE OF STERILE PROCESSING IN HOSPITAL OPERATIONS

Sterile processing plays a critical role in maintaining patient safety, supporting surgical readiness, and meeting regulatory requirements. Inefficiencies in tracking and workflow can result in:

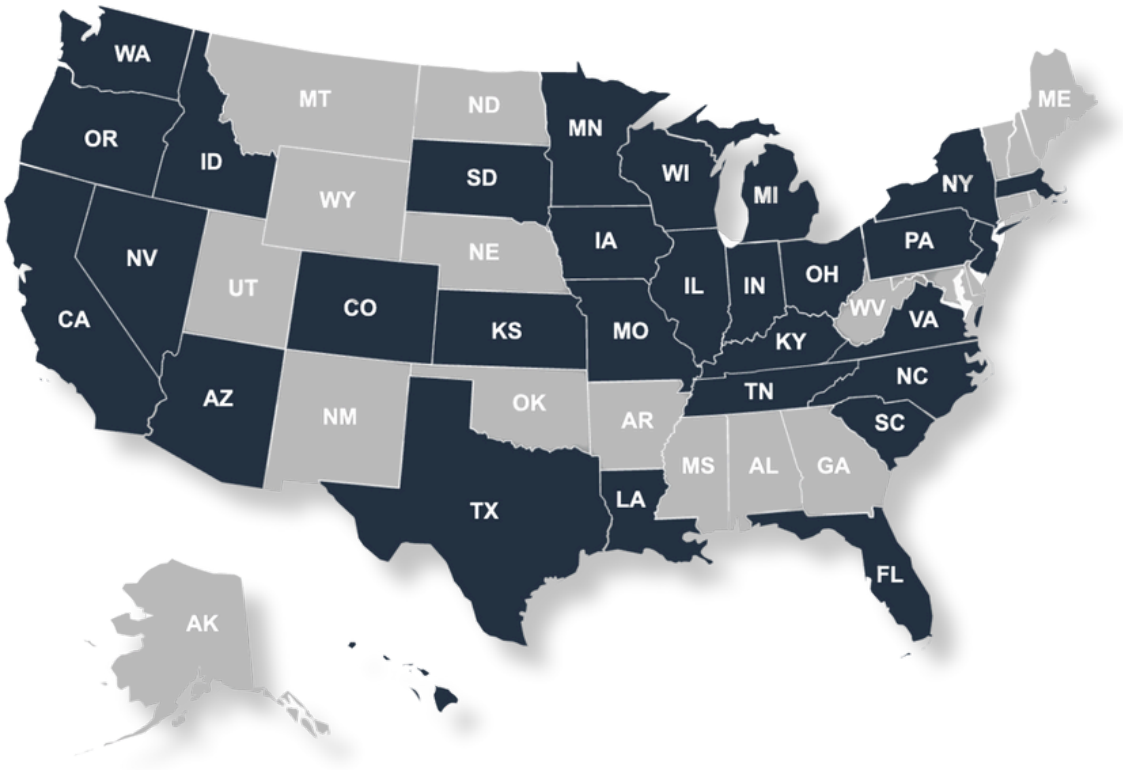
KEY QUESTIONS EXPLORED

- Are your current tracking methods helping your team move faster or holding them back?
- What hidden challenges are disrupting sterile processing every day?
- Can your current systems keep up with the rising pressure for speed, accuracy and compliance?
- Are you ready for what the future of sterile processing demands?

RESPONDENTS DEMOGRAPHICS

The Voice of the Industry

Insights coming directly from the leaders and frontline professionals nationally, shaping sterile processing, from managers driving strategy to technician executing every detail.



BY GEOGRAPHIC BREAKDOWN

60%

URBAN FACILITIES

Often have greater access to advanced technologies and larger teams, facilitating the adoption of innovative practices.

25%

SUBURBAN FACILITIES

May balance between resource availability and patient volume, requiring adaptable strategies for efficiency.

15%

RURAL FACILITIES

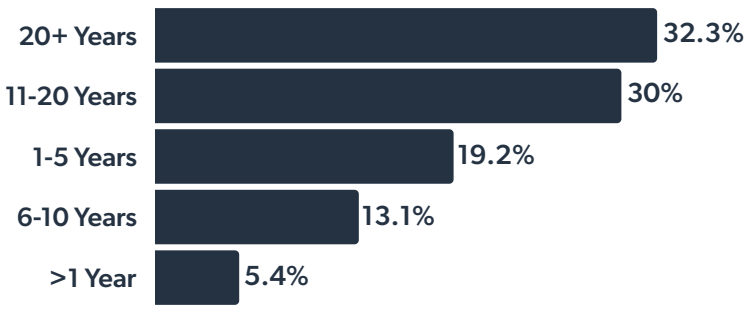
Face unique challenges such as limited resources and staffing shortages, necessitating tailored solutions to maintain high standards of care.

RESPONDENTS BY JOB TITLE

1. **MANAGERS**
2. **DIRECTOR**
2. **SUPERVISOR**
3. **TECHNICIAN**
4. **NONE OF THE ABOVE**
   (specialized or hybrid roles)

5. EDUCATOR
6. SERVICE LINE SPECIALIST
7. REGISTERED NURSE
8. COORDINATOR
9. VP
10. OR LIAISON
11. C-SUITE

RESPONDENTS BY TENURE



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SECTION 1:
WHERE SPD BREAKDOWN BEGINS

The smallest cracks in sterile processing departments (SPD) can lead to the biggest disruptions in surgical care. This section uncovers where breakdowns are happening most often and how those failures ripple into delays, cancellations, and safety risks.

KEY FINDINGS:

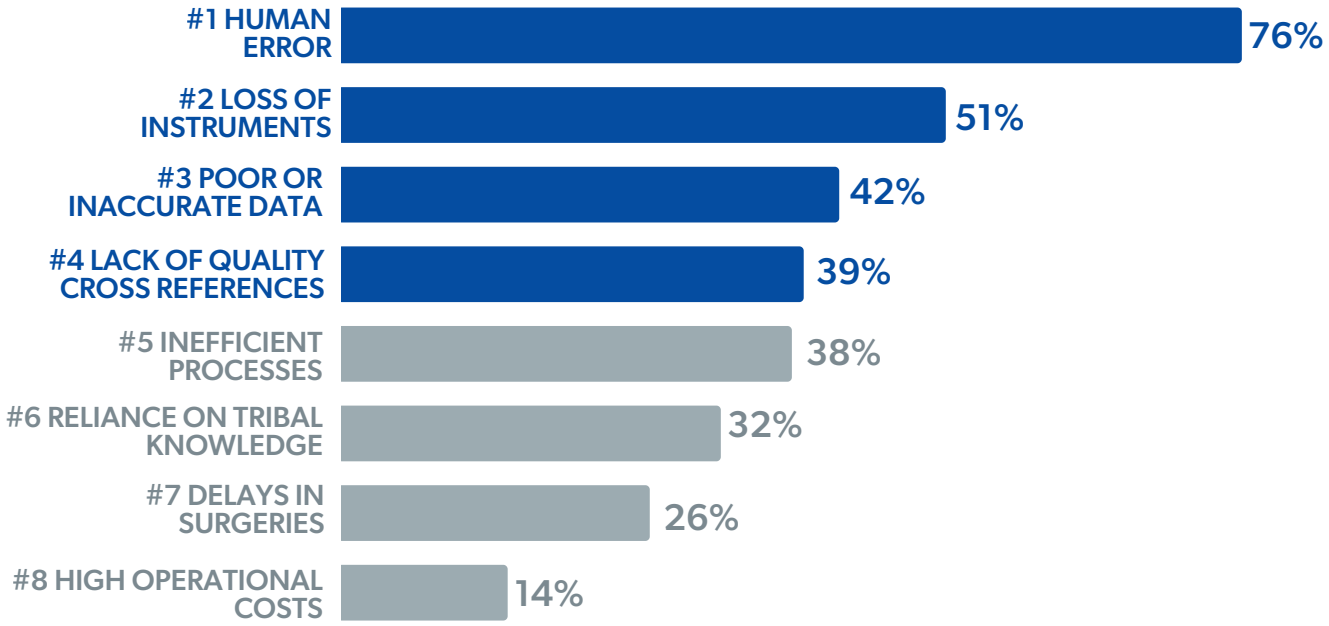
76% of respondents cited human error as a top challenge

58% reported surgical delays due to inventory issues

SURVEY QUESTION

What are the main challenges with your current tracking methods? (Select all that apply)

Multiple Selections Allowed



Human error is disrupting surgical workflows and compromising the timely, safe delivery of care when patients need it most.

76 percent of respondents cited human error as a leading challenge, suggesting manual and partially digital systems still leave too much room for mistakes. Those mistakes can carry real consequences.

Inaccurate or inconsistent data and inefficient processes point to a deeper problem. Many sterile processing teams are flying blind without the visibility or reliability they need to plan ahead, catch errors early, or make confident decisions under pressure.

"I found it striking that nearly 40% reported a lack of cross-referencing tools, and close to a third still rely on tribal knowledge. When critical information lives in people's heads instead of standardized systems, it becomes harder to train new staff, scale operations, or respond quickly when something goes wrong.

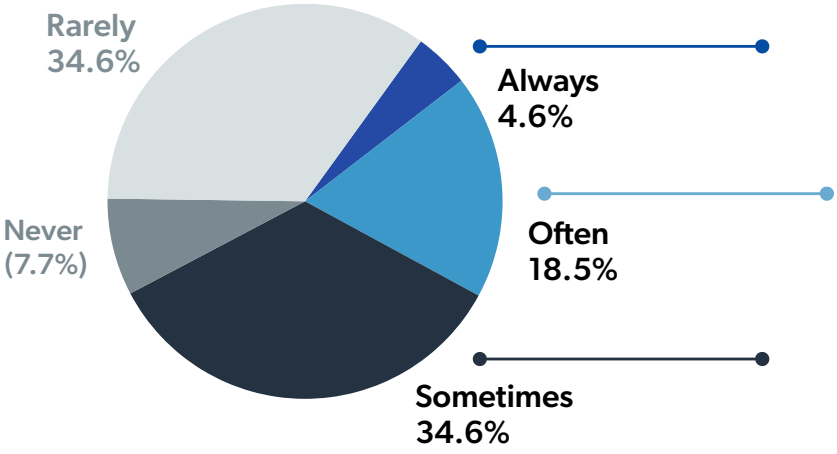
The result is a fragile process that can easily break under pressure."

Kyle Louie, Surgical Asset Management Expert, Aesculap

SURVEY QUESTION

How often does a lack of inventory readiness result in delays or cancellations of surgical procedures?

FREQUENCY OF DELAYS DUE TO INVENTORY READINESS



Every Missed Asset Has

a Ripple Effect

More than half **(57.7%)** of respondents reported that surgical delays occur **always**, **often** or **sometimes** due to a lack of inventory readiness These disruptions can ripple across the entire surgical schedule and delay patient care, strain staff and drive-up costs.

Behind these delays are deeper systemic problems.

Human error, poor data visibility and inefficient workflows make it difficult to know where instruments are, whether they're ready, or if they'll make it to the OR in time. When trays go missing or aren't properly processed, surgeries stall, clinicians scramble, and trust in the system erodes.

"Without reliable tracking and clear communication, even the most routine procedures can fall apart. Addressing inventory readiness means fixing the foundation. The OR can't run if the SPD is left struggling in the background."

Rob Hensel, Surgical Asset Management Expert, Aesculap

SECTION 2:

THE TRACKING GAP NO ONE IS TALKING ABOUT

Digital tools are being adopted, but many hospitals are still relying on outdated or disconnected systems.

This section explores the uneven progress of digital transformation in surgical tracking and what's standing in the way.

KEY FINDINGS:

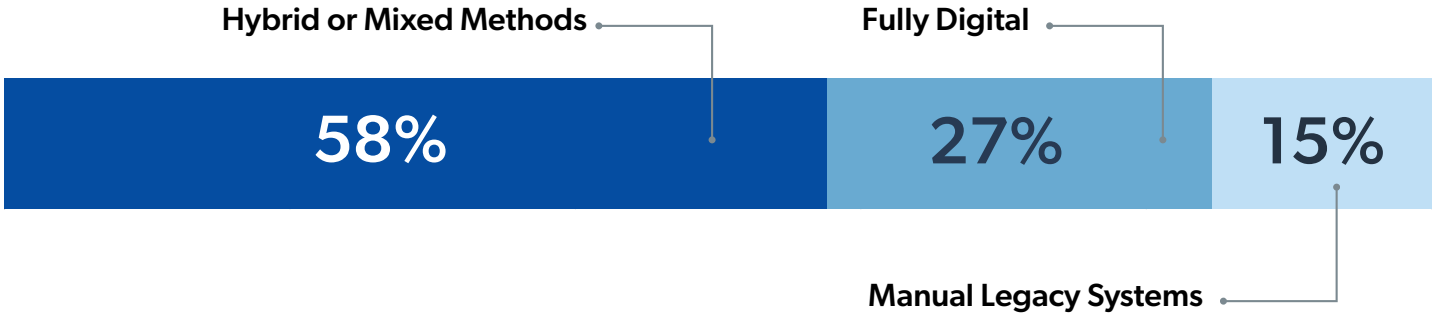
80% of facilities use barcode scanning

62% struggle with compatibility on existing systems

SURVEY QUESTION

Which methods does your facility use for tracking surgical instrument sets?

Multiple Selections Allowed



Modernization is Underway, But Disparities in Progress Remain

Adoption of digital tracking tools is underway. **27 percent** of respondents report using only barcode scanning (fully digital), signaling that a growing number of facilities are embracing modernized workflows.

However, **58 percent** of facilities are still operating in hybrid environments, using a mix of barcode scanning, RFID, paper forms, and manual tracking. Within this 58 percent, 76 percent include barcode scanning in their process, but are still tied to manual legacy tools that can slow down workflows and make data reporting more difficult.

At the same time, **15 percent** of respondents continue to rely solely on manual methods, like paper tracking. These systems are harder to scale, more error-prone, and less compatible with the industry's push toward connected, data-driven surgical operations.

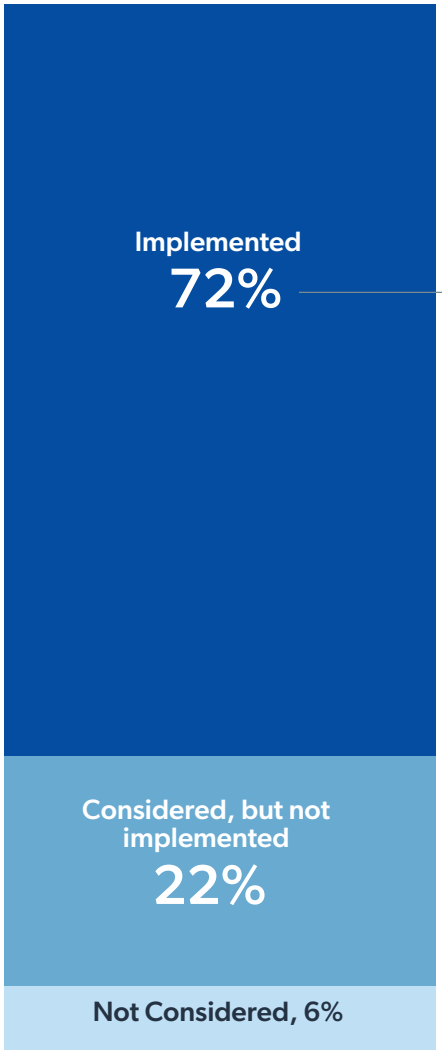
"Even with some digital tools in place, gaps still exist. A missed scan, a mislabeled tray, or a misplaced instrument can lead to delays, errors, and frustration. These risks are compounded in hybrid environments where manual steps are still part of the process.

True modernization means eliminating these weak points through integrated systems that reduce human error and improve efficiency."

Jennifer Greisen, Sterile Processing Expert, Aesculap

SURVEY QUESTION

Has your facility implemented or considered tracking systems for surgical instruments?



The Cost of Falling Behind

72 percent of facilities have implemented some form of tracking system.

This is a promising sign that digital adoption is taking hold across the industry. But that still leaves nearly 30% that haven't made the leap, and some that haven't even considered it. That gap is more than a technology issue. It's a growing risk.

Facilities without tracking systems are often working with limited visibility, relying on manual processes that are difficult to scale, nearly impossible to audit, and prone to error. As surgical demands grow and regulatory scrutiny increases, these facilities may find themselves scrambling to meet expectations with tools that are no longer fit for purpose.

"Falling behind in digital adoption doesn't just impact performance. It puts patient safety, operational efficiency, and staff trust at risk.

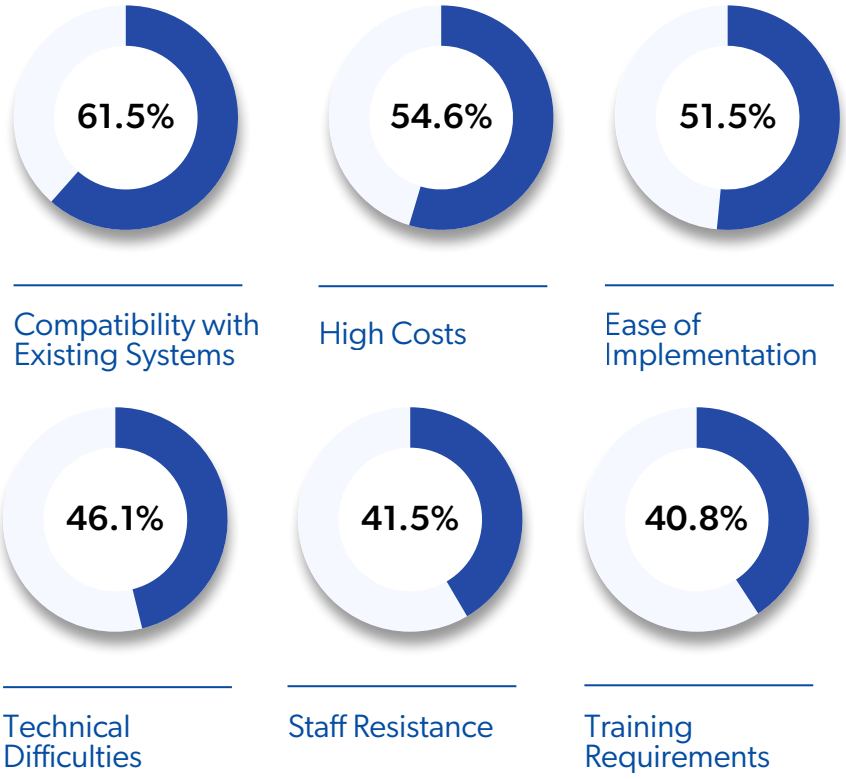
The longer facilities wait, the harder it becomes to catch up. Now is the time to explore what the right solution could look like for your team."

Michael Lagasse, Surgical Asset Management Expert, Aesculap

SURVEY QUESTION

What challenges does your facility face when integrating new tracking technologies?

Multiple Selections Allowed



Most sterile processing leaders agree that digital tracking systems offer clear benefits. But when it comes to putting those tools in place, many facilities run into roadblocks on both the technical and human sides.

The most common challenge, reported by **61.5%** of respondents, is system compatibility. Integrating new tools with outdated infrastructure can be slow, frustrating, and expensive. High costs and complex implementations add to the hesitation, especially when time and resources are already stretched thin.

But infrastructure is only part of the problem. **More than 40% of respondents** cited staff resistance and training requirements, revealing that the human element is just as critical. When systems are difficult to use or disrupt daily workflows, buy-in drops and change becomes harder to sustain.

SECTION 3:

BELIEF IN TRACKING IS HIGH. FOLLOW-THROUGH IS NOT.

The intention to modernize is there. So why is so much of the industry still stuck?

This section reveals how conflicting priorities, unclear ROI, and stalled momentum are leaving many facilities behind, even as the need for progress grows more urgent.

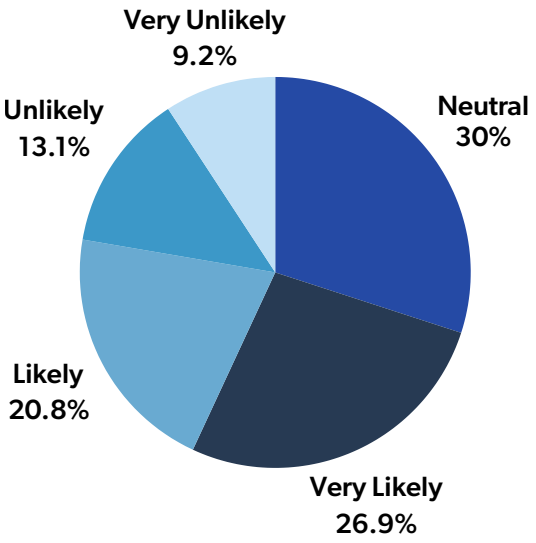
KEY FINDINGS:

47% say they're likely to adopt advanced tracking in 1–3 years

30% remain undecided or hesitant to invest

SURVEY QUESTION

How likely is your facility to adopt advanced tracking solutions in the next 1-3 years?



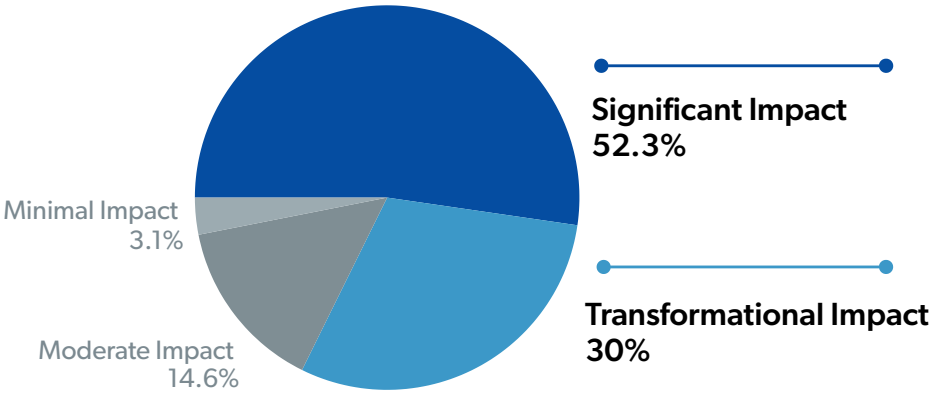
A Tipping Point for Adoption

More than 47% of respondents said their facility is likely or very likely to adopt advanced tracking systems in the next one to three years. That is a promising sign of momentum. But the largest group remains neutral at 30%, indicating hesitation or uncertainty about making the investment. Another 22% said they are unlikely or very unlikely to move forward at all.

These responses suggest the industry is standing at a critical crossroads. While interest is growing, many facilities are still on the fence. Without stronger incentives, clearer return on investment, or simpler implementation paths, progress may stall. And as digital transformation moves forward, the gap between early adopters and those lagging behind will only grow wider.

SURVEY QUESTION

What impact do you expect a tracking solution to have on overall efficiency in your facility?



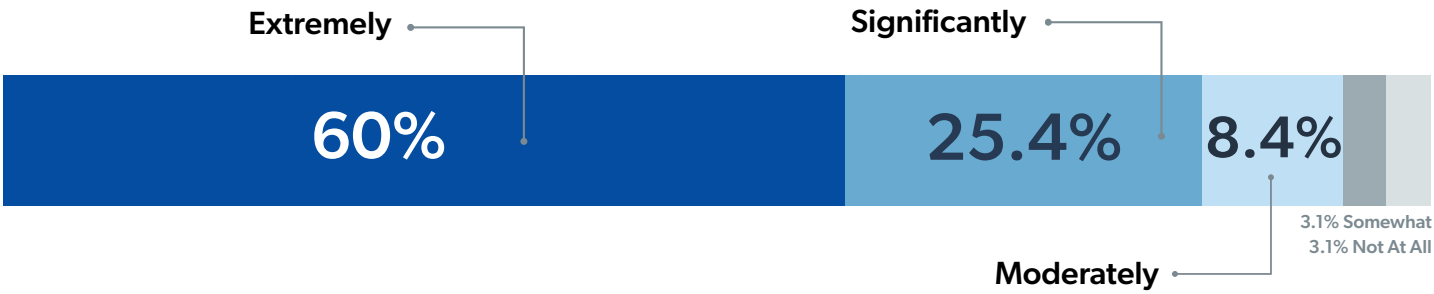
A clear case for

Efficiency Gains

82.3% of respondents said they expect tracking solutions to have a significant or even transformational impact on their facility's efficiency. That kind of consensus suggests digital tracking is not just a technology upgrade, but rather is a tool for building more reliable workflows, reducing delays, and improving coordination across the surgical team.

SURVEY QUESTION

To what extent do you believe having real-time data on surgical instrument tray locations could improve efficiency?



MOST CITED BENEFITS OF REAL-TIME LOCATION SYSTEMS

Multiple Selections Allowed

Improved Efficiency	83.85%
Real-Time Data and Insights	80.77%
Reduced Search Time for Instruments	76.92%
Tracking Trays to the OR	73.85%
Identifying Real-Time Storage Locations	73.08%
Tracking Trays to the Patient	70.77%
Reduced Human Error	66.15%
Enhanced Compliance and Reporting	65.38%
Knowing When Instruments Are Coming Down from OR	61.54%

"Real-time visibility into the location and status of surgical sets is shifting from a competitive advantage to a standard expectation. It allows teams to stop searching and start acting, which reduces delays, improves coordination between SPD and the OR, and streamlines workflows.

As more health systems adopt this approach, it's becoming clear that real-time data is a critical driver of efficiency and surgical readiness."

Alan Stout, Vice President, Strategic Sales, Aesculap

SECTION 4:

SURGICAL DATA THAT SITS INSTEAD OF SERVES

Many SPD teams collect the right data, but are not using it.

This section highlights the missed opportunities hiding in count sheets, production metrics, and dashboards that never leave the screen.

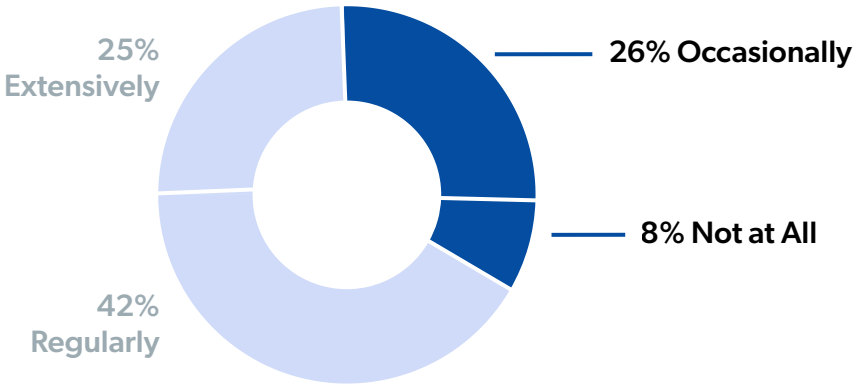
KEY FINDINGS:

1 in 3 facilities underutilize data for quality improvement

20% don't use count sheet or production data at all

SURVEY QUESTION

How does your facility currently use data for quality improvement in Sterile Processing?

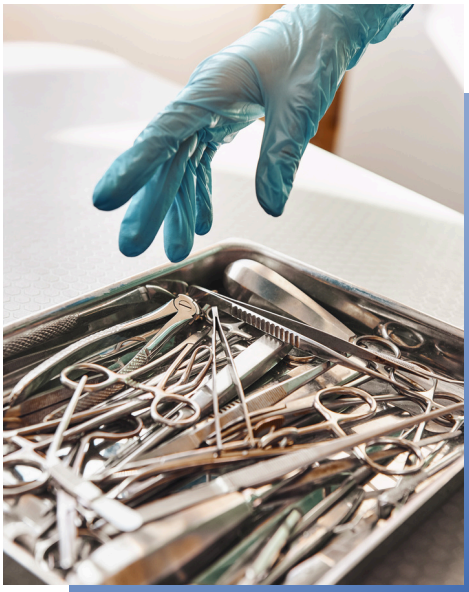


Nearly one-third of facilities are not using data consistently to drive quality improvements in sterile processing. That means **missed opportunities** to catch recurring issues, reduce errors, and strengthen compliance. In many cases, data being collected is sitting idle instead of being applied to fuel change.

Turning Data into Action Remains a Missed Opportunity

Without regular data use, it becomes harder to justify investments, pinpoint workflow problems or make decisions with confidence.

On the other hand, facilities that use analytics proactively are more likely to spot trends early, improve safety, and keep their surgical teams running smoothly.

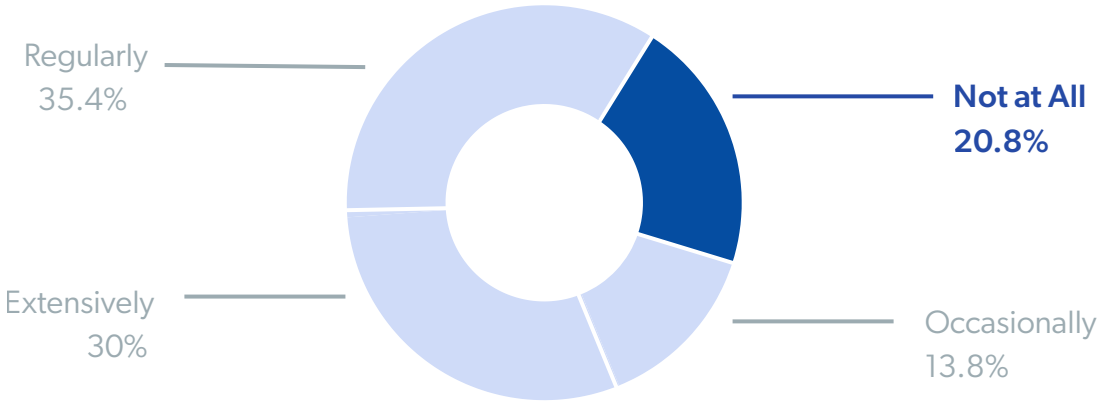


"The takeaway here from me is clear. Collecting data is only starting point. The real impact comes with data being utilized to improve how teams work, respond and prepare for what's next.

I believe that building in regular data reviews into the hospitals workflows, allow them to make informed decisions and move away from "I think, I feel". When clinical teams make a habit of utilizing analytics to guide decisions, which is when real, lasting improvements occur and are sustained."

Seth Arentsen, Director, Surgical Asset Management, Aesculap

SURVEY QUESTION
How often does your facility use count sheet or production data to optimize surgical instrument workflows?



Foundational Tools, Missed Opportunities

Nearly **one in five facilities** do not use count sheet or production data. Others only use them occasionally. These tools are essential for identifying bottlenecks, tracking throughput, and allocating resources where they are needed most.

In open-ended responses, many professionals shared additional data points they wish they had access to:

- Analytics on instrument damage trends
- Turnaround time insights for tray reprocessing
- Cross-departmental reports between SPD and the OR
- Predictive analytics for set availability before cases
- Data tracking that incorporates loaner tray volume and delays

These responses show a clear shift in mindset. Sterile processing teams no longer just want reports. They want tools that help them plan ahead, reduce errors, and collaborate more effectively with the OR.

As hospitals adopt more digital systems, the next step is just as critical to make sure teams have access to the right data and the training to turn it into action.

SECTION 5:

THE FUTURE OF STERILE PROCESSING

The SPD is shifting from a back-end technical role to a forward-facing strategic function. But the transition requires investment.

This section explores what it will take to keep today's SPDs from being left behind.

KEY FINDINGS:

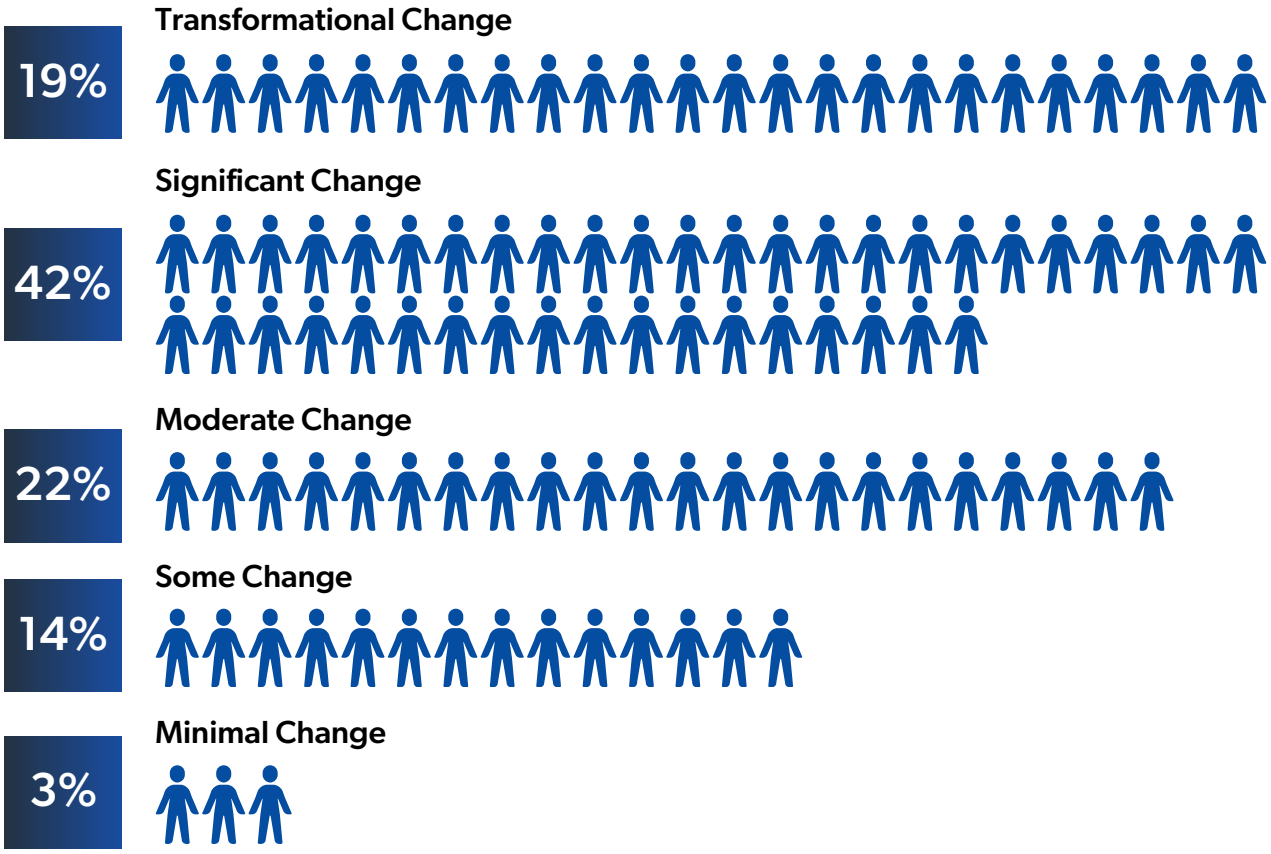
- Hospitals are scaling their ORs without scaling the systems that support them
- Facilities are planning for growth but not preparing their SPD teams to keep pace

SURVEY QUESTION

How do you anticipate the roles of Sterile Processing staff will evolve with future advancements in tracking systems?

THE EVOLVING ROLE OF STERILE PROCESSING PROFESSIONALS

Each icon represents 1% of survey respondents



As tracking technologies advance, the role of sterile processing professionals is shifting from purely technical tasks to more strategic, data-driven responsibilities. This evolution demands new skills, deeper system understanding, and a closer connection to hospital leadership. However, this shift also brings challenges, including the need for ongoing training, more comprehensive data literacy and a mindset focused on continuous improvement.

"With the right resources, sterile processing teams can accomplish more than ever before. Clean, transparent data and advanced analytics bring clarity to a complex environment and help identify exactly what resources are needed to succeed. As data from supply chain, sterile processing, and the OR come together, surgery becomes more connected and efficient. That means less stress for teams and safer, better outcomes for patients."

Welsh Harris, CTO, Ascendco Health

Sterile processing professionals were traditionally hired for technical tasks like sterilization and inventory management, but today they are increasingly measured on their ability to analyze data, optimize processes, and lead digital transformation. According to the survey, this shift requires both technical proficiency and strategic thinking as SPDs take on a more critical role in hospital operations.

What you were hired for…

Clinical Knowledge:
Understanding of basic medical procedures and surgical instrument use.

Sterilization Techniques:
Proficiency in operating sterilization equipment (e.g., autoclaves, steam sterilizers).

Infection Control:
Understanding of infection prevention protocols and standards.

Attention to Detail:
Careful inspection of instruments for cleanliness and proper functioning.

Time Management:
Efficiently managing time to meet turnaround requirements for instrument processing.

Basic Equipment Maintenance:
Performing routine maintenance on sterilization and decontamination equipment.

Regulatory Compliance:
Adherence to hospital policies and regulatory standards, such as AAMI and CDC guidelines.

Inventory Management:
Basic management of instrument inventory, including tracking and restocking supplies.

Basic Record Keeping:
Maintaining records of sterilization processes, instrument usage, and equipment maintenance.

Compliance with Safety Standards:
Strict adherence to safety protocols to protect oneself from hazards.

What you will be measured for…

Data Analytics and Interpretation:
Ability to analyze data from digital systems to assess performance, identify trends, and make data-driven decisions.

Process Optimization:
Expertise in process improvement methodologies to streamline workflows, reduce waste, and enhance efficiency.

Digital Inventory Management:
Utilization of advanced inventory management systems to track instruments in real-time, manage par levels, and forecast future needs.

Compliance and Quality Assurance:
Implementing and maintaining digital systems for tracking compliance with sterilization standards and regulatory requirements.

Technology Integration:
Understanding and integrating new technologies, such as automated instrument tracking systems, RFID tagging, and IoT devices, into daily operations.

Leadership in Digital Transformation:
Ability to lead and adapt in a digital environment, using technology to enhance equipment maintenance processes and ensure improvement.

Regulatory Compliance:
Real-time, tech-driven compliance using automated tracking, digital documentation, and data analytics to ensure continuous adherence and detect early issues.

Collaboration Across Departments:
Facilitating enhanced communication and collaboration with surgical, clinical, and administrative departments through digital platforms.

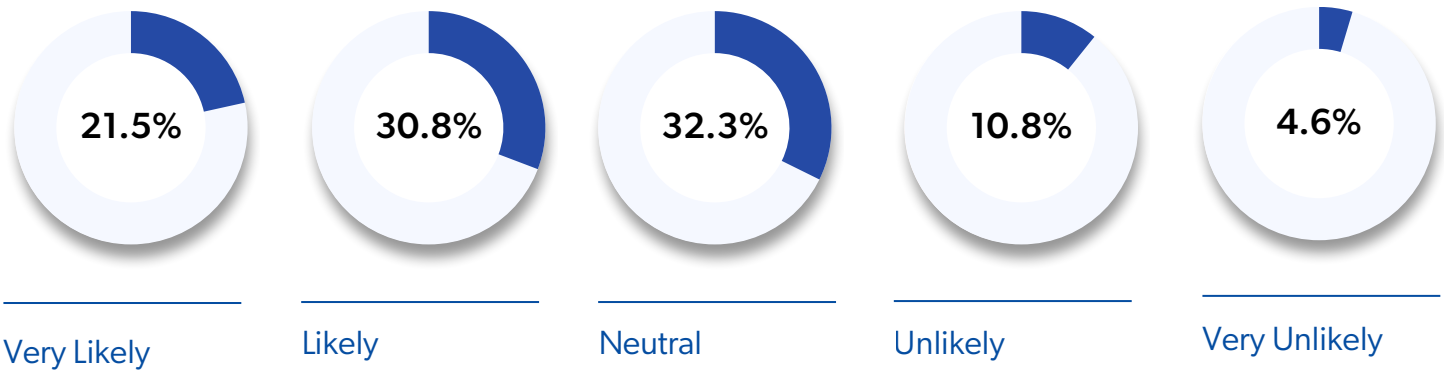
Continuous Improvement & Innovation:
Driving a culture of continuous improvement by regularly reviewing and refining processes based on digital insights.

Training and Education on Digital Tools:
Developing and delivering training programs to ensure staff are proficient in using new digital systems and tools.

As technology advances, sterile processing roles will become more strategic, moving from reactive tasks to data-driven decision-making. Professionals will need to integrate automated tracking, RFID, and real-time analytics into daily operations, aligning their work with broader goals like cost reduction, efficiency, and patient safety. To succeed, they must embrace continuous learning, cross-department collaboration, and proactive leadership.

SURVEY QUESTION

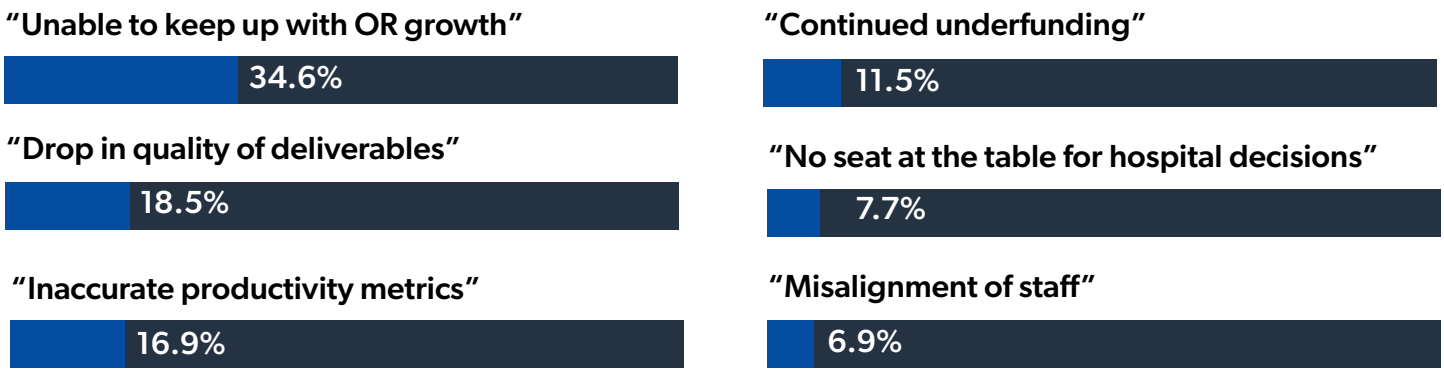
How likely is your facility to invest in ongoing skills development for staff to keep up with new technologies?



With **47.7%** of facilities neutral to very unlikely to invest, many risk falling behind as SPD roles evolve. Without ongoing training, teams may struggle to adapt to new technologies, increasing the risk of errors, inefficiencies, and quality gaps. To keep pace, facilities must invest in data-driven skills that align with modern demands, ensuring their staff can lead — not lag — in the digital transformation of healthcare.

SURVEY QUESTION

Without an evolution of available Sterile Processing tools and technology, what is the biggest area of risk to the department?



FUTURE STATE: RESPONDENT EXPECTATIONS OF THE NEXT 5 YEARS

As part of the survey, respondents were asked to share their views on where they see the future of sterile processing heading over the next five years. Key themes emerged around automation, data integration, and the critical role of tracking systems, reflecting a shared vision for a more efficient, data-driven future.

SURVEY QUESTION

In your opinion, where do you see the future of Sterile Processing heading in the next 5 years?

> **Tracking systems will be the backbone of modern SPD operations. Without real-time data, you're just guessing.**

> **Ongoing education and training will be required to keep up with the complexity of modern surgical instruments and evolving technologies.**

> **AI advancement is going to be huge for SPD from quality metrics to improved process outcomes.**

> **Analyzing data on instrument usage, sterilization cycles, and infection rates will be the norm for hospitals to make transformational growth decisions.**

"The future of sterile processing analytics isn't just about dashboards — it's about driving system-wide clarity and coordination. We're moving toward a leadership infrastructure that spans multiple departments, giving teams visibility into where things are working and where they need intervention.

This data doesn't just sit in reports, it feeds the broader surgical and supply chain ecosystem, supports AI and robotics and ultimately powers a more efficient, automated future for surgical services."

Brian Reed, Ascendco Health, Co-Founder & CEO

DO YOU KNOW YOUR NEXT MOVE?

You've seen where pressure in sterile processing is building, what's holding teams back and where the smartest leaders are going next. Let's recap what needs to change and why:

The more manual effort in your SPD, the more risk you carry.

Teams still using paper and incomplete digital systems are more likely to experience missed scans, incomplete documentation and inaccurate tray status. These mistakes add up, leading to inventory that isn't ready when and where it's needed.

Data only drives change when it's clean and used.

Data is only valuable if it is accurate, consistent across systems, and used to drive decisions. Many hospitals collect data, but inconsistencies between tracking systems and the EMR make it difficult to trust or apply.

Barriers to adopting better solutions are real, but not insurmountable.

Leaders cited compatibility with existing systems, upfront costs, and staff resistance as key challenges to modernization. These are valid concerns, but can be addressed with the right partners, phased implementation plans, and clear communication around long-term value.

The role of SPD is transforming, and the industry is taking notice.

SPD teams are increasingly being recognized as essential partners in surgical quality and performance. To meet the demands of this shift, hospitals need to invest in the people, technology, and infrastructure that will support the future of the field and help the entire health system grow.

WHERE THIS LEAVES YOU

Every insight in this report points to one thing: sterile processing is evolving. Hospitals that want to lead must evolve. It's time to stop treating SPD as a support function and start managing it like the critical system it is.

Progress starts with a conversation. Talk to your Aesculap or Ascendco Health representative to see what the right next move could look like for you and your team.

APPENDIX: INDUSTRY BENCHMARK REPORT QUESTIONS

The following list includes the questions shared with sterile processing professionals across the United States as part of the 2025 Surgical Asset Management Industry Benchmark Survey. This survey, conducted in partnership between Ascendco Health and Aesculap, aimed to capture insights into the challenges, opportunities, and future directions of sterile processing departments. These questions were designed to assess the current state of the industry, identify areas for improvement, and better understand the impact of emerging technologies.

1. Please confirm that your role aligns with one of the following job titles: *
2. How many years have you been in the Sterile Processing industry? *
3. What are the main challenges with your current tracking methods? (Select all that apply) *
4. How often does a lack of inventory readiness result in delays or cancellations of surgical procedures? *
5. Which methods does your facility use for tracking surgical instrument sets? (Select all that apply) *
6. Has your facility implemented or considered tracking systems for surgical instruments? *
7. What challenges does your facility face when integrating new tracking technologies? (Select all that apply) *
8. How likely is your facility to adopt advanced tracking solutions in the next 1-3 years? *
9. What impact do you expect a tracking solution to have on overall efficiency in your Facility? *
10. To what extent do you believe having real-time data on surgical instrument tray locations could improve efficiency? *
11. What benefits do you see in using Real-Time Location Systems (RTLS) for tracking surgical instruments? *
12. How does your facility currently use data for quality improvement in Sterile Processing? *
13. How often does your Facility use count sheet or production data to optimize surgical instrument workflows? *
14. How do you anticipate the roles of Sterile Processing staff will evolve with future advancements in tracking systems? *
15. How likely is your facility to invest in ongoing skills development for staff to keep up with new technologies? *
16. Without an evolution of available Sterile Processing tools and technology, what is the biggest area of risk to the department? *
17. In your opinion, where do you see the future of Sterile Processing heading in the next 5 years?

*Could choose multiple answers