Advantus Health Partners

Transforming EP Lab Sustainability: How One Health System Saved Millions by Reprocessing Medical Devices

This 49-hospital system dramatically reduced medical waste and saved $5.1 million by implementing a strategic electrophysiology equipment reprocessing program that balanced environmental sustainability, financial innovation and quality care.

By partnering with Advantus Health Partners to implement a comprehensive medical device reprocessing program, this health system achieved swift change in year one, which grew into remarkable results in just four years. The initiative drove $5.1 million in savings, diverted more than 19,000 pounds of waste from landfills, and prevented over 11,000 pounds of CO_2 emissions—all while maintaining high-quality patient care and creating a more sustainable approach to medical equipment management.

About the health system

49 Hospitals

3,000 Providers

60,000 Associates

16 Facilities with EP Labs

The Challenge of Sustainability in Health Care

In an era of increasing environmental consciousness, the health care industry faces a critical challenge: reducing its substantial carbon footprint while maintaining high-quality patient care and organizational financial stability. The U.S. health care systems contributes **more than 8% of the country's greenhouse gas emissions**, prompting leaders to seek innovative strategies that balance sustainability with operational effectiveness.

Medical device reprocessing offers a promising approach as a pathway to both environmental stewardship and cost reduction without compromising patient care.

Three things health systems must balance

- Environmental Sustainability
- Financial Stability
- Quality Patient Care

Reprocessing in EP labs has promising potential

Electrophysiology (EP) labs, critical for diagnosing complex heart rhythm disorders, have historically generated significant medical waste through single-use equipment. During EP studies, health care providers use specialized catheters and wire electrodes to measure heart electrical activity, typically discarding expensive medical devices after a single procedure.

However, this traditional approach represents not just an environmental burden, but also a substantial financial inefficiency. Recognizing this opportunity, one health care system partnered with Advantus Health Partners to develop a comprehensive EP lab medical device reprocessing program that would challenge long-standing assumptions about medical device lifecycle management.

$2,000–$3,500	The cost of a specialized catheter from the original manufacturer
$800–$1,750	The cost of a reprocessed catheter
50%+	Savings per reprocessed catheter

Identifying obstacles early

The initiative faced immediate and significant hurdles. **Physician engagement** proved challenging, with many initially **skeptical about the safety and quality** of reprocessed medical devices. Clinicians raised legitimate concerns about potential compromises in patient care, while **logistical issues**—such as delays in vendor pickup—threatened to undermine the program's feasibility. Advantus would need to carefully manage vendor contracts to meet resupply deadlines.

These obstacles required a strategic, collaborative approach that would address both technical and cultural barriers to implementing a sustainable reprocessing model.

A Plan for Success

Recognizing the critical importance of stakeholder engagement, the health care system and Advantus team implemented a comprehensive approach to build trust and understanding. Each step was designed for strategic alignment, careful implementation and rigorous follow-up.

Meetings with stakeholders

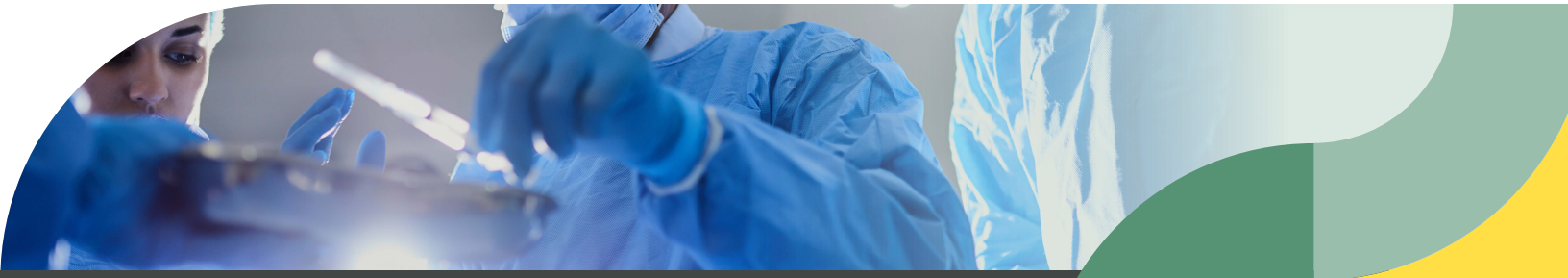
A series of strategic meetings brought together key stakeholders from across the organization—including EP physicians, clinicians, technologists, department leaders and supply chain executives. These collaborative sessions created a forum for open dialogue, addressing concerns and establishing a shared vision for the reprocessing initiative.

The meetings focused on three critical objectives: analyzing current practices, establishing sustainability goals, and carefully planning process changes to achieve their targets.

Education on reprocessing

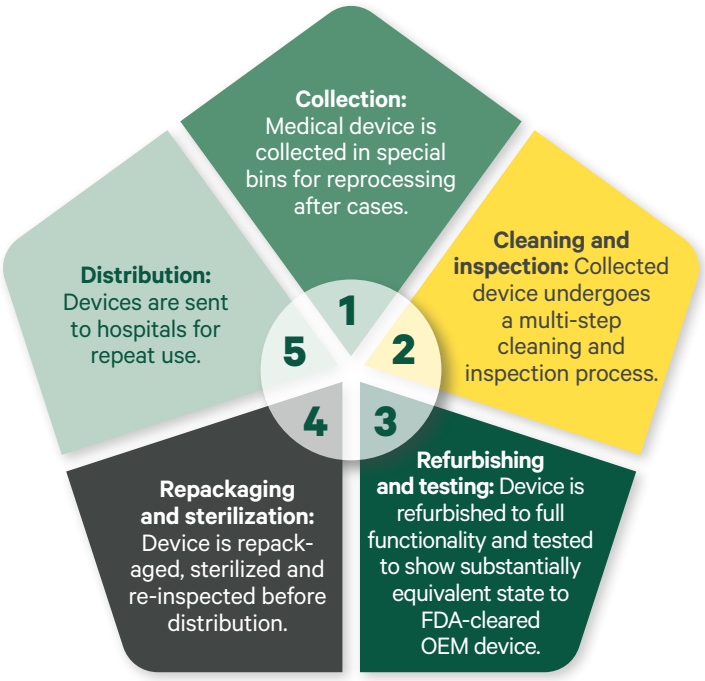
A robust educational strategy focused on the science and safety of medical device reprocessing. The Advantus team, in collaboration with their reprocessing vendor, developed comprehensive educational sessions designed to demystify the reprocessing process. These presentations provided an in-depth look into the technical aspects of single-use device reprocessing. They covered areas such as the history of reprocessing, regulatory oversight, and detailed insights into cleaning, testing and sterilization protocols.

Perhaps most importantly, the sessions provided a platform to address and refute common concerns, transforming skepticism into informed understanding. The team established an open feedback mechanism, encouraging all stakeholders—from department managers to clinical leaders—to report any ongoing questions or challenges directly to the implementation team.



The Reprocessing Cycle

Reprocessing catheters for reuse is regulated by the FDA and requires approval similar to other medical devices.



Regular program reviews

Monthly program reviews emerged as a critical mechanism for maintaining momentum and transparency. These regular check-ins became a powerful tool for tracking and communicating the initiative's impact.

The reports to hospital leadership went beyond mere numbers, presenting compelling metrics that told a story of meaningful change. Detailed reports highlighted key performance indicators such as:

- Volume of medical devices diverted from landfills
- Reductions in carbon emissions
- Substantial cost savings

These monthly reviews became a catalyst for continuous improvement. By consistently showcasing the tangible benefits of the reprocessing program, the team built incremental support and motivated stakeholders to explore new opportunities for expansion.

Savings Quickly Add Up, Environmental Impact Goes Down

Diverting these devices from landfills had an immediate environmental impact, saving CO2 emissions and gasoline. The economic results gave the program further momentum. The first year, the program achieved $400,000 savings, which almost doubled by the second year. Within four years, the health system saw the results continue to grow, saving a total of $5.1 million so far.

These savings also gave them a competitive business advantage that would benefit patients. The EP lab sites could redirect funds saved to improve their facilities and technology, further investing in delivering high quality care for patients.

4 Years of EP Lab Reprocessing

$5.1M saved

19,000+ pounds of waste diverted from landfills

11,000+ pounds of CO2 emissions prevented

Keys to Achieving Real Results

Many well-intentioned initiatives can fall flat without proper execution. The teams implemented this EP reprocessing program with a meticulously planned and collaborative approach. Here are their keys to success.

Recognizing the power of culture

They acknowledged successful implementation required more than just a technical solution. It needed a cultural shift in how the EP lab teams viewed and managed the medical device lifecycle.

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Communication and education

The team communicated consistently throughout the rollout and implementation. Monthly system-wide calls were used to share successes, challenges and learnings, creating a transparent and collaborative environment. Education sessions were more than mere presentations—they were strategic conversations designed to transform skepticism into understanding.

Simplifying collection for people delivering care

The team simplified the sorting process with a “put it all in the bin” approach. The only available collection point in EP labs was the vendor-provided reprocessing bin, which the vendor would sort later. This deceptively simple process removed decision-making barriers and streamlined the collection process.

Calling in the right expertise

The partnership with Advantus Health Partners was critical to the program’s success—and the rapid rate at which they achieved results. Advantus brought specialized knowledge, proven implementation strategies and deep clinical expertise. This partnership guided the organization through potential challenges, enabling a swift and effective transformation of their medical device management approach.

Start Smart with Sustainability

Ready to discover how sustainable supply chain can help you uncover savings and reduce emissions while upholding quality care?

Contact us to learn how Advantus can help at advantushp.com

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