$7.00

December 2023 • Vol. 47 No. 12

HEALTHCARE PURCHASING NEWS®

CLINICAL INTELLIGENCE FOR SUPPLY CHAIN LEADERSHIP

www.hpnonline.com

WATER QUALITY

What is it costing you?

Scope Aeration, Drying & Storage
Supplier Customer Service Award
Beds & Surgical Tables
HLD vs. Sterilization

CLEAN CONFIDENTLY

INTRODUCING

The Next Generation Of Contamination Monitoring Technology

ATP COMPLETE 2

BY RUHOF

For the cleaning verification of surgical instruments, endoscopes, and surfaces, **ATP Complete 2 by Ruhof** is a cloud-based cleaning monitoring system used to help hospitals and other healthcare organizations achieve optimal standardized cleaning levels.

ATP COMPLETE 2
BY RUHOF

ADVANCED FEATURES

- SMART HANDHELD MOBILE PLATFORM
- CLOUD-BASED
- WI-FI CONNECTIVITY
- INFINITE USERS & TEST POINTS
- CUSTOMIZABLE DASHBOARD
- RFID READER / BARCODE READER
- USER FRIENDLY INTERFACE

ACHIEVE CONTINUOUS IMPROVEMENT IN EVERY DEPARTMENT

- ENDOSCOPY
- STERILE PROCESSING
- OPERATING ROOM
- ENVIRONMENTAL SERVICES, etc.

393 Sagamore Ave. Mineola, NY 11501 • 1 (800) 537-8463
(516) 294-5888 • Fax (516) 248-6456
E-Mail: ruhof@ruhof.com • www.ruhof.com

RUHOF

AD-070 Rev0 122022

IN THIS ISSUE...

December 2023 • Vol. 47 No. 12

HEALTHCARE PURCHASING NEWS

NEWS

SOURCING & LOGISTICS

SURGICAL/CRITICAL CARE

INFECTION PREVENTION

STERILE PROCESSING

PRODUCTS & SERVICES

Flooring so durable it can last for decades – and still look good.

nora® rubber flooring offers performance characteristics that enhance the patient and caregiver experience. This softer hard surface stands up to healthcare environments, delivering on high standards for durability, ease of maintenance, safety and ergonomics, and acoustics.

Learn more at interface.com/healthcare

Interface®

Carpet Tile | LVT | nora® Rubber Flooring

BUYLINE

Connecting the dots

Rick Dana Barlow
Senior Editor

French post-impressionist Georges Seurat recognized and understood that chromoluminarism and pointillism could generate beautiful art using dots in the 19th century, a philosophy shared by Roy Lichtenstein, American pop artist and abstract expressionist a century later. As consumers, we can benefit emotionally from what we see.

The same could be said – or hoped for – with the topsy-turvy contemporary American healthcare reform movement. So far, few, if any, seem to be connecting the dots in what could be described as conundrumism.

Unfortunately, the challenge with federal/national healthcare reform projects to date is that the efforts have been inverted.

By inverted, the descriptor refers to efforts that start with the payers and move backward. It's all about the accountability, paperwork and records designed to make the payer process more efficient for payers, but then their premiums and rates continue to climb with little accountability or even rational justification outside of making insurance company executives and shareholders happy.

This does little for the patient, means more administrative work for the clinician, regardless of automation (including A.I., blockchain, etc.) and even less for supply chain.

Authentic and meaningful healthcare reform should start with the patient and move forward in terms of behavioral modification (yes, parenting) with appropriate incentives for compliance and penalties for non-compliance. The late corporate icon Steve Jobs was known for emphasizing that product development begins with the customer experience to which you then innovate and apply technology.

What have we accomplished so far? With the emphasis on electronic health/medical records usage, healthcare insurance coverage and supply data standards adoption and implementation as well as a host of other concerns, we're still left with population ennui, clinician burnout and manic decisions/panic reactions to crises.

Time travelers from the 1980s simply shake their heads in disappointment and exasperation – and not just because we don't have flying cars by now today.

What do we need? Following are five suggestions.

1. Everyone gets a baseline body scan – "free" as if either subsidized by the government or a credit by the insurance company that works with providers and imaging equipment suppliers to facilitate and enable access. This includes a full brain, heart, circulatory and digestive system scans.
2. Everyone gets an EHR/EMR using the same legal precedence as the government requiring the switch to digital TV and providing COVID-19 tests and vaccines. People can be incentivized to input data in some way – be it via tax breaks or stipend to use on insurance premiums. However, they're also penalized for non-compliance in that they either pay a tax or pay extra on their insurance plan, not unlike paying extra to have your telephone number unlisted in the Yellow Pages of yore.
3. Everyone gets a baseline health app on their phone. HIPAA-protected data input then is automatically uploaded to their individual EHR/EMR and used to calculate their individual "health score," to influence predictions, prescriptions, proscriptions and premiums.
4. One's health score is like a credit score where your purchases and payoffs affect your number that banks and employers use to determine risk. Hence, doctor visits, pharmacy visits, adherence/compliance to clinical recommendations and demonstration of healthy activities, behaviors and habits elevate your score and make you more attractive to insurers (think premium savings, etc.) and vice versa.
5. Healthcare delivery, traffic and transactions should be safe and seamless with secure electronic transactions and the capability of receiving proper (as in comfortable, convenient, effective and efficient) care whether an inpatient, outpatient or at home.

All this spans administrative, clinical, financial and operational aspects. Supply Chain, Sterile Processing, Surgical Services, Infection Prevention, Environmental/Facility Services, among others, work together to connect the dots. They investigate and procure what's needed. They maintain sterile instruments and fields to prevent infection, which reduces the need for inpatient services so that patients are not discharged, and visitors do not leave with bacterial or viral infections that perpetuate a cycle of sickness.

Get the point? Work together to change behavior and generate healthy results.

PUBLISHER

Group Publisher *Chris Driscoll*
cdriscoll@endeavorb2b.com

EDITORIAL

Editor-in-Chief *Janette Wider*
jwider@hpnonline.com
Senior Editor *Rick Dana Barlow*
rickdanabarlow@wingfootmedia.biz
Senior Contributing Editor *Kara Nadeau*
knadeau@hpnonline.com

ADVERTISING SALES

East & West Coast *Kristen Hoffman*
khoffman@endeavorb2b.com
603-891-9122
Midwest & Central *April Bruffy*
abruffy@hpnonline.com
713-992-0381
Strategic Accounts Sales *Chris Driscoll*
cdriscoll@endeavorb2b.com
978-880-8345

ADVERTISING & ART PRODUCTION

Production Manager *Ed Bartlett*
Art Director *Tracy Arendt*
Advertising Services *Karen Runion*
krunion@endeavorb2b.com
Audience Development *Laura Moulton*
lmoulton@endeavorb2b.com

Healthcare Purchasing News USPS Permit 362710, ISSN 1098-3716 print, ISSN 2771-6716 online is published 12 times annually with an additional issue in December - Jan, Feb, Mar, Apr, June, Jun, Jul, Aug, Sep, Oct, Nov, Nov IBG, Dec, by Endeavor Business Media, LLC. 1233 Janesville Ave., Fort Atkinson, WI 53538. Periodicals postage paid at Fort Atkinson, WI, and additional mailing offices. **POSTMASTER**: Send address changes to Healthcare Purchasing News, PO Box 3257, Northbrook, IL 60065-3257. **SUBSCRIPTIONS**: Publisher reserves the right to reject non-qualified subscriptions. Subscription prices: U.S. $160.00 per year; Canada/Mexico $193.75 per year; All other countries $276.25 per year. All subscriptions are payable in U.S. funds. Send subscription inquiries to Healthcare Purchasing News, PO Box 3257, Northbrook, IL 60065-3257. Customer service can be reached toll-free at 877-382-9187 or at HPN@omeda.com for magazine subscription assistance or questions.

OPERATE WITH GREATER PRECISION

Meet our newest

STERILIZATION POWERHOUSE.

AESCULAP Aicon™ Sterile Container System

Unwrap the future of sterile supply management. With features that help streamline processes and reduce the possibility of wet sets, Aesculap's next generation rigid container is everything you'd expect from the market leader.

Visit **aesculapusa.com/aicon** to learn more about how this breakthrough technology can help your SPD Operate With Greater Precision.

AESCULAP®

Aesculap, Inc. - a B. Braun company

Clinging to customer service amid cost containment

by Rick Dana Barlow

Each person may harbor a specific definition of superb customer service based on attention to detail that motivates a safe and welcome return to transacting with that vendor time and time again.

And while each person's expectation of superb customer service may be customized to individual preferences, key elements seem to form a framework for an effective model. The common denominator? Three criteria: Access to service with someone helpful and understanding, convenience and quick response – the more immediate and rapid, the better.

Whereas healthcare providers (as in buyers) know superb customer service when they experience it, healthcare suppliers (as in sellers) recognize their own capabilities of delivering on demand.

To close out 2023, and the remnant of a global pandemic, *Healthcare Purchasing News (HPN)* wanted to offer suppliers – manufacturers, distributors and service companies – the opportunity to reflect on what they feel were demonstrations of exemplary customer service. *HPN* amassed a broad list of companies spanning supply chain, sterile processing, surgical services, infection prevention, environmental services and information technology, spotlighting 20. Specifically, *HPN* asked them to share details about what happened with a customer, how they handled it together, who participated in the solution and how they collaborated to move forward.

HPN felt such ideas would serve as an informative breath of fresh air and good news to cap yet another year clouded by continuing cost pressures. *[Editorrs Note: Due to the healthy response you will find more examples continued at HPN Online.]*

Healthmark Industries

Cheron Rojo

Specific challenge the customer faced: We had one particular customer that was using a cleaning verification daily and it was passing. But when they were introduced to a true surrogate cleaning verification (TOSI) and began to use it, the results were inconsistent and sometimes failing. Also the datalogger (TempChek DL), which identifies time and temperatures within a wash cycle, identified numerous incorrect temperatures and time duration during the cycle.

How the challenge was addressed and solved directly or by assisting the customer: To get to the root cause (s), we first addressed the simple fix-it-yourself items, such as unclogging rotating arms and readjusting rotating arms to the correct placement. From the results of the datalogger the service equipment representative was involved to adjust times and temperatures for each phase of the wash cycle, e.g., added a cold pre-rinse cycle, enzymatic cycle temperature was lowered, and detergent phase time was lengthened.

Cheron Rojo, senior clinical education specialist, Healthmark Industries

VPL

Specific challenge the customer faced: A valued, long-time customer of VPL who was also one of the nation's most comprehensive, integrated health care delivery systems, came to us originally because they were challenged by uncontrolled costs partially driven by unmanaged freight spend and also unmonitored supplier shipping behaviors.


Amber Bielak

How the challenge was addressed and solved directly or by assisting the customer: VPL worked on their behalf to get more freight managed and made sure they were taking advantage of the best rates available to their specific health system. Reducing unmanaged freight saved this customer almost $30,000 alone, and we were able to identify an additional $70,000 in savings with lower freight costs overall. Additionally, by monitoring their freight spend, we were able to pinpoint an instance of unusually high spend from one particular supplier that was shipping everything express which was not a part of the contract. This overspend amounted to $30,000 that the customer would've otherwise paid, but VPL chased down to make sure they saw they received a refund and fixed the issue going forward.

Amber Bielak, product manager, VPL

Tecsys

Specific challenge the customer faced: Our customer faced the challenge of optimizing their surgical supply chain with a focus on waste reduction, resource efficiency and patient care. To address this, we restructured processes, introduced dynamic inventory management and optimized staff allocation. By introducing automation, our customer was able to streamline operations, which allowed them to establish rigorous quality control measures. As a result of these changes, the perioperative environment benefited from a significantly more efficient and streamlined supply chain.


Cory Turner

How the challenge was addressed and solved directly or by assisting the customer: Drawing on our expertise in supply chain, Tecsys collaborated closely with the health systemrs supply chain leadership. The team secured executive support to deploy a data-driven approach to preference card optimization. This involved a systematic analysis and refinement of preference cards used in surgical procedures, ensuring only items with regular utilization were included. By removing seldom-used items from the pick lists, our customer was able to significantly cut down on reprocessing costs, mitigate discrepancies in inventory counts and reduce unnecessary product orders.

Cory Turner, CMRP, senior director, Healthcare Strategy, Tecsys

The Ruhof Corp.

Specific challenge the customer faced: My customer began working at a new surgical center at a Texas hospital facility. As the facility had not performed general surgery in many years, she noticed significant rust and staining on the existing stainless-steel trays and instruments. Not wanting to bear the expense of replacing these items, she asked for my help.


Before

How the challenge was addressed and solved directly or by assisting the customer: I had our warehouse expedite her a case of our Surgistain quick revitalizing solution for stainless steel surgical instruments, trays, basins, case carts, etc. The product removes rust, stains, spotting, hard water scale and mineral deposits and helps to loosen stiff joints and locks. My customer decided to give Surgistain a try and was thrilled with the results. In her own words: "We soaked and scrubbed and now have a new looking tray that will be useable for many more years." She tried it on some other products and got the same great results. She was so happy that she even provided us with before and after photos.


After

Vic Preston, senior account executive, The Ruhof Corp.

Olympus Corporation of the Americas

Specific challenge the customer faced: The health and safety of patients and delivering great customer service are key values in Olympus' journey toward our goal of improving patient safety. One component of the Olympus support for patient safety is our Endoscopy Support Specialist (ESS) Team, providing 80+ ESS' across the country. The ESS team provides customer education focused on proper care and handling of Olympus products, endoscope reprocessing based on the manufacturer's instructions, guidance on Association for the Advancement of Medical Instrumentation (AAMI), Association of periOperative Registered Nurses (AORN), American Society for Gastrointestinal Endoscopy (ASGE), and Society of Gastroenterology Nurses and Associates (SGNA) Society Guidelines, as well as information on our products.


Bill DeMattie

Bill DeMattie, ESS in the Midwest, is an example of an Olympus employee who goes the extra mile for his customers. Bill supports several large teaching hospitals in the area, providing frequent education on reprocessing, equipment care and handling and guidance on infection prevention best practices and processes. He is the "go-to" person for hospital employees when they have reprocessing or related questions.

A teaching facility in his territory had been experiencing turnover in reprocessing staff coupled with a high-volume of daily procedures at multiple locations. At times, spikes in procedure volume drove the need for some locations to share equipment. An equipment inventory coordinator and nurse manager from the facility approached Bill late one afternoon with an urgent situation stating patient procedures were scheduled the next day and the location did not have the proper equipment in-house to complete some procedures since some items were at Olympus for scheduled maintenance.


Theresa Kunsman

How the challenge was addressed and solved directly or by assisting the customer: DeMattie quickly went into action, sourcing equipment for the facility through the Olympus equipment loaner program. With the equipment delivered in time to the hospital, the facility was able to perform the required procedures without impacting patient care.

Theresa Kunsman, senior product manager, Cleaning/Disinfection/Sterilization, Olympus Corporation of the Americas

Cardinal Health

Specific challenge the customer faced: We recently had a customer contact us about a mother who had been discharged with a new baby in need of specialized formula. The mom had only a few days of the formula sample on hand. Not only was this new mom adjusting to her brand-new role as parent, but she was also navigating the complexities of healthcare and receiving products in the home. The specialized formula required for the baby is considered "special order," meaning we order on-demand and products typically have a longer lead-time. However, understanding the urgency for this patient, we collaborated with our customer and the product manufacturer, as well as across our business, to deliver product for this patient before her samples ran out.

Erika Burkett

How the challenge was addressed and solved directly or by assisting the customer: Our customer took the lead in helping the patient navigate insurance coverage. When our customer informed us of the situation and its urgency, they asked if we could escalate the distribution process for their patient. We quickly stacked hands to escalate a new order with the product manufacturer and were able to expedite product before the patients' sample formula was depleted.

Erika Burkett, director, Customer Service Management, Cardinal Health at-Home

Metrex

Specific challenge the customer faced: We recently worked with two customers, one a large non-acute care organization with facilities across many states and the other a large academic medical system with acute and non-acute facilities in a regional area. The challenge they faced was in changing their disinfectant wipe products due to the hurdles they faced in moving their staff and organizations to new solutions after years of use with their previous products. While changing wipes may seem on the surface to be a simple task, this challenge was magnified by their multiple locations, shifts and departments/floors that all had to be brought along the journey while ensuring staff remained compliant to protocols (e.g., properly following kill times or using the right product in appropriate situation) so patient safety was not compromised. Even factors like the brackets on the walls that held the wipe canisters had to be considered as part of the change.

Both customers were very interested in changing their disinfectant wipes to newer products for clinical and financial benefits, but the scope and effort to implement the change and retraining staff made them rethink their decisions. The burden to execute the change fell on their clinical staff who had conflicting priorities and limited bandwidth. They needed help or the change might not happen at all!

How the challenge was addressed and solved directly or by assisting the customer: Metrex stepped up by offering resources, both human and materials, to assist the customers in implementing the change. Each customer has unique needs, so Metrex asked customers what was needed to make the new product introduction easier and successful. It came down to three key areas: Educational/transition materials for staff to easily reference to understand the new products and where/when they would be used; resources (people) to help educate their staff in-person on-site; and clinical resources to connect with staff virtually for in-service and clinical training.

Metrex produced and provided custom conversion wall charts to educate and remind staff of the previous product(s) and what new product was replacing them with essential instructions for use information. We offered new wall brackets as well as stickers to use on existing brackets to identify the new products.

Metrex and our sales partners at MedPro Associates provided on-site in-person resources to assist the clinical staff in the transition and training of staff. In one case five people were provided to spend up to three weeks working with the various locations and teams. And two clinical resources were offered virtually to help cover more users and locations with in-service and clinical training.

Our sales team also assisted the customers' materials management teams in calculating the amount of new product needed and setting new PAR levels (as these typically change when converting due to the differences in Unit-of-Measure between manufacturers).

All this was offered as a value-added service to our customers and was not something they paid for additionally. The positive customer reaction to the service and support provided has shown us how important this can be for some customers, and as mentioned before can be more important than pricing or clinical claims.

David Nelson, director, Marketing, Metrex

Medline Industries

Joseph Riggio

Specific challenge the customer faced: Medline is an integral and proactive partner in Stanford Medicine Health Care Supply Chain management and optimization of workflows. Working with Stanford's [electronic data interchange] and data analytics partner, GHX, Medline helped solve previously lunsolvabler problems around auto-substitution, price assurance and exception management while creating new industry best practice standards along the way.

1. Specifically, Stanford Medicine Health Care Supply Chain was facing three main challenges: Auto-sub had never been successfully used in Lawson, one of Stanford's ERPs
2. Conventional wisdom was that Auto-sub and TruePrice, Medline's best-in-class price assurance solution, could not and had never been able to run at the same time
3. New and comprehensive internal structures and processes were needed to support resulting automation and alignment with GHX's reporting.

How the challenge was addressed and solved directly or by assisting the customer: The first order of business was getting Auto-substitution to work with GHX's My Exchange and Stanford's multiple ERPs. The manual process of ordering substitutes from Medline was inefficient and costing Stanford labor, space and inventory carry costs – along with the risk of stockouts. Medline began drilling into the issues of interfacing Stanford's multiple ERP systems and Medline's inventory system, capturing the myriad of differences between the primary item and the substitute item to implement the automated substitution process for clinically approved equivalent alternatives.

The partners recognized that technology automation alone would not fully solve challenges around auto-substitution. Auto-sub required developing a robust infrastructure within Stanford and its partners industry partners – process, structure, and technology all needed to be enhanced. Both entities would have to develop new internal structures and collaborative workflow processes to support the automation.

WHY CHOOSE DALE?
QUALITY YOU CAN COUNT ON

Established in 1961, Dale is recognized as a trusted manufacturer of specialty medical devices that provide high quality, reliable, cost-effective solutions to enhance patient care.

Visit the Virtual Dale Medical Center to see our products by specialty

dalemed.com/virtual-medical-center

ENTERAL

RESPIRATORY

VASCULAR

UROLOGICAL

POST SURGICAL

▶ Visit **dalemed.com** for more information

Dale® Medical Products

EMPLOYEE OWNED 100% AND OPERATED

Represented Nationally by: MTMC

For example, Medline worked to modify their inventory management practices and adopt a new standard of work to ensure that appropriate stock levels of the substitute items would be available. Stanford, meanwhile, streamlined their substitute approval process to ensure timely approval of relevant substitute items. A Substitution Task Force was also enhanced to convene daily to vet clinically acceptable equivalents. A process that used to take up to four weeks was streamlined to an average of five days, and less than 72 hours in the most emergent cases.

Both entities then came together to code a custom interface between Medline systems and the Lawson ERP to optimize data transfer, cadence and alignment within the Auto-sub program.

In tandem with the Auto-sub work, Supply Chain and Medline teams supported by GHX set out to implement a best-in-class price accuracy solution in Medline's TruePrice using GHX's MyExchange portal to monitor and measure efficacy. At every step along the way, the group turned to process improvement best practices to come to consensus on the best way to implement other required solutions and create collaborative structures meant to sustain improvement work after the project had culminated.

Joseph Riggio, vice president, IDN Market Sales, Medline Industries

Xenex Corp.

Specific challenge the customer faced: Example 1: We manufacture LightStrike+ Germ-Zapping Robots that are used to reduce the microbial load (the number of pathogens) on non-critical medical devices in rooms in healthcare facilities. The robots are often operated by a hospital's Environmental Service (EVS) employees, a department in which employee turnover can be a challenge. As part of our service program, Xenex's customer success team provides monthly utilization reports to our customers so they can review where their robots are being run, how often, and by whom. One customer requested metrics from other hospitals. She wanted to measure and compare the efficiency (number of rooms addressed per day per robot) of their facility against other hospitals around the U.S. so they can share their EVS team's success with management at their hospital. Obviously, we can't share the hospital names with them but we are able to tell them how their team ranks versus other facilities nationwide, and they've found that this helps motivate them to continue to maximize utilization of their LightStrike robots.

Rodger Mack

Example 2: Xenex prides itself on customer service and partnering with its customers to help them solve their challenges. We were recently approached by a hospital that was experiencing a challenging situation with C.diff spores in a specific unit in their facility. As a longtime customer, they are aware of the LightStrike robot's efficacy against C.diff spores and wanted to treat all the rooms in that unit with a LightStrike robot. They asked their Xenex sales rep for a loaner robot so they could continue operating their LightStrike robots throughout the day in other rooms within the facility (per their standard operating protocols) and focus the loaner robot on reducing the number of C.diff spores within the targeted unit. We quickly shipped them a loaner robot, and they were able to treat all rooms within the targeted unit while their LightStrike robots continued being used in other parts of the hospital.

How the customer eliminated the challenge from happening again and what preventive measures were implemented either by the vendor and/or the customer: Stopping the spread of pathogens within their facility is a top priority for healthcare leaders. Xenex team members work closely with our customers to understand their goals and develop standard operating protocols for their LightStrike robots to help them reach those goals. We believe that ongoing communication with our customers is one of the things that sets us apart from other vendors. For example, recognizing the turnover challenge within many hospitals, we offer a comprehensive online training program to teach new team members about their robots and how to use them. Whether itrs getting our Science Team on the phone with a customer that is battling a specific pathogen, providing a loaner robot if needed, or arranging for training for new employees, we want to do everything possible to help our customers succeed.

Rodger Mack, executive vice president, Operations, Xenex Corp.

Curvo Labs

Specific challenge the customer faced: This 400+-bed, nonprofit community medical center struggled with medical device contracts, in particular a three-year battle with total joints pricing. The medical center provides a range of services to a West Coast metropolis and adjacent counties. The hospital had tried to get total joints pricing reduced for three years without success. The seasoned Supply Chain Director knew the prices were too high but lacked the data and bench strength to go after it. The cost reduction initiative wasn't getting traction with surgeons, and suppliers were ignoring them. The supply chain leader was running into a brick wall, and frustration was high. .

Joe Jackson

How the challenge was addressed and solved directly or by assisting the customer: We repaid customer trust with significant savings opportunities. Curvo came in, looked at the data and agreed their pricing was too high.

How Curvo took action:

- Leveraged benchmarking data
- Analyzed physician total joint utilization data from health system
- Led two rounds of negotiation with suppliers
- Reduced total joints cost by 16% ($300,000)

"We successfully leveraged data and our expertise for a nice balance between automation and services to drive a really good result," explained Joe Jackson, vice president of Customer Experience, Curvo Labs.

The process kicked off in late August and finished with a contract signing in October – less than two months. Not a bad result after years without progress. "It's not at all unusual for these projects to drag on for months," Jackson said. "I think suppliers move faster because we know the information as well as they do."

While other hospitals have bigger Total Joints spend, for this medical center, the 16% savings represented a big win. "Usually, in one contract cycle, if I can get eight to 10 percent, I'm happy. Getting 16 percent is excellent. It's a significant movement," he declared.

Joe Jackson, vice president, Customer Experience, Curvo Labs

Innovative Health

Lars Thording

Specific challenge the customer faced: A large, multi-facility customer out of Denver was not getting enough savings out of their reprocessing program n reprocessed devices were not routinely bought back and utilized. Instea-d, new devices were used even if reprocessed devices were available. The purchasing system did not allow for preference to be given to reprocessed devices. This prevented the hospital system from realizing the roughly 50% lower price of reprocessed devices. At the same time, the [purchase order] process was so cumbersome (and not designed for regular acquisition of reprocessed devices) and time consuming, that by the time a PO was issued, a new product had replaced the reprocessed product. **How the challenge was addressed and solved directly or by assisting the customer:** Our customer service team went in and mapped out the entire process, from ordering to picking products for procedures. The team worked with the hospital system's procurement team and developed a plan to fix the problem. Our clinical integration and distribution teams arranged for a warehouse to be set up for high-volume devices, solving the time-delay issues the procurement system caused. Processes and signage were put in place to favor reprocessed devices over new.

Lars Thording, vice president, Marketing & Public Affairs, Innovative Health

PartsSource

Specific challenge the customer faced: Marshfield Clinic has worked hard to streamline its medical equipment management program, especially during the significant healthcare challenge of staffing shortages. But there are still core items that need regular maintenance done for effective operations and regulatory requirements. Infusion pumps are one of the items that require regular maintenance and are one of the most used pieces of all the Marshfield biomedical department's equipment. In one hospital alone, Marshfield has nearly 700 pumps that require annual, routine preventative maintenance to ensure quality care for patients.

Though the Marshfield biomed team can perform these maintenance tasks in-house, it pulls all their biomedical service staff and resources away from other responsibilities including the management of higher-value, critical care equipment.

How the challenge was addressed and solved directly or by assisting the customer: PartsSource quickly identified and confirmed a trusted vendor from its national network to complete these routine tasks at nearly the same cost as Marshfieldrs team performing them in-house. Marshfield now uses this vendor for the maintenance of all its IV pumps so its internal teams can focus on higher-safety and revenue-driving equipment such as anesthesia machines, defibrillators, and other life-saving equipment.

Robert Proctor, vice president, Enterprise Sales, PartsSource

Editor's Note: For additional examples that include Belimed, Ryder System, CenTrak, Diamond Storage, VUEMED, GHX and PDI Healthcare, click on this story headline at HPN Online.

From Vendor to Industry Partner: The Evolving Role in Healthcare

by J. Hudson Garrett Jr. and Karen Niven

In today's rapidly changing healthcare landscape, the distinction between vendors and industry partners has never been more critical. While both play a pivotal role in providing products and services to healthcare organizations, the value they bring to the table differs significantly. This article explores the transformation from being a vendor to becoming an industry partner and why the latter is increasingly essential in modern healthcare.

The Vendor Mentality

Historically, vendors in healthcare have operated on a transactional model. They supply goods or services in exchange for payment, fulfilling a specific, often short-term, need of the healthcare organization. The vendor's role has typically been limited to delivering products, providing basic support, and ensuring contractual obligations are met.

While this traditional vendor role has been essential, it falls short in addressing the complex challenges faced by healthcare organizations today. In an era characterized by value-based care, interoperability, and the need for seamless integration, healthcare providers seek more than just transactions; they seek partnerships.

The Evolution to Industry Partner

1. **Collaborative Approach:** Industry partners take a collaborative approach to working with healthcare organizations. They actively engage in discussions and problem-solving, striving to understand the unique challenges and goals of their clients. Instead of simply offering products or services, they act as consultants, providing insights and expertise that extend beyond the transaction.
2. **Long-Term Relationships:** The shift to industry partnership emphasizes long-term relationships rather than one-off transactions. Industry partners invest time in building trust, understanding the client's evolving needs, and aligning their offerings accordingly. This commitment to long-term collaboration fosters mutual growth and success.
3. **Custom Solutions:** Industry partners recognize that one-size-fits-all solutions no longer suffice in healthcare. They tailor their offerings to meet the specific requirements of each client, addressing unique challenges and goals. This customization leads to more effective and efficient solutions that directly benefit healthcare organizations.
4. **Innovation and Value Creation:** Industry partners actively seek opportunities for innovation and value creation. They work closely with healthcare clients to identify areas for improvement and develop solutions that enhance patient care, streamline operations, and reduce costs. This focus on continuous improvement aligns with the evolving needs of the healthcare industry.
5. **Expertise and Education:** Industry partners bring deep industry expertise to the table. They not only provide products or services but also educate healthcare professionals on best practices, industry trends, and regulatory changes. This knowledge-sharing empowers healthcare organizations to make informed decisions and optimize their operations.

The Benefits of Being an Industry Partner in Healthcare

1. **Enhanced Trust:** Industry partners build trust by demonstrating a commitment to the success of their healthcare clients. This trust forms the foundation of enduring relationships that extend beyond the immediate transaction.
2. **Value-Driven Results:** Industry partners are driven by the pursuit of value. They focus on delivering outcomes that positively impact patient care, operational efficiency, and the bottom line. This approach resonates with healthcare organizations striving to provide high-quality care while managing costs.
3. **Adaptability:** The healthcare industry is in a constant state of change, with new technologies, regulations, and patient expectations emerging regularly. Industry partners are agile and adaptable, ready to respond to these shifts and help healthcare clients navigate the evolving landscape.
4. **Innovation:** Industry partners actively contribute to innovation within healthcare. By collaborating with clients to identify opportunities for improvement, they drive the development of new solutions and technologies that advance patient care and operational excellence.
5. **Long-Term Growth:** Industry partnerships foster long-term growth for both healthcare organizations and industry partners themselves. The success of healthcare clients directly translates into the success of industry partners, creating a mutually beneficial relationship.

In today's healthcare environment, the role of vendors is evolving into that of industry partners. This transformation is driven by the recognition that healthcare organizations require more than transactional relationships; they need collaborative, value-driven, and innovative partnerships. Industry partners bring not only products and services but also expertise, customization, and a commitment to long-term success. By actively engaging with healthcare clients, addressing their unique challenges, and fostering innovation, industry partners are well-positioned to drive positive change and contribute to the advancement of healthcare delivery. For healthcare organizations, the decision to work with industry partners rather than traditional vendors can lead to enhanced trust, value-driven results, adaptability, innovation, and long-term growth. As the healthcare landscape continues to evolve, the value of these partnerships becomes increasingly evident, making the transition from vendor to industry partner a strategic imperative for success in modern healthcare. Organizations such as the Association of Healthcare Value Analysis Professionals welcome collaboration with Industry Partners as we work together to solve the complex challenges, we face across the healthcare continuum. HPN

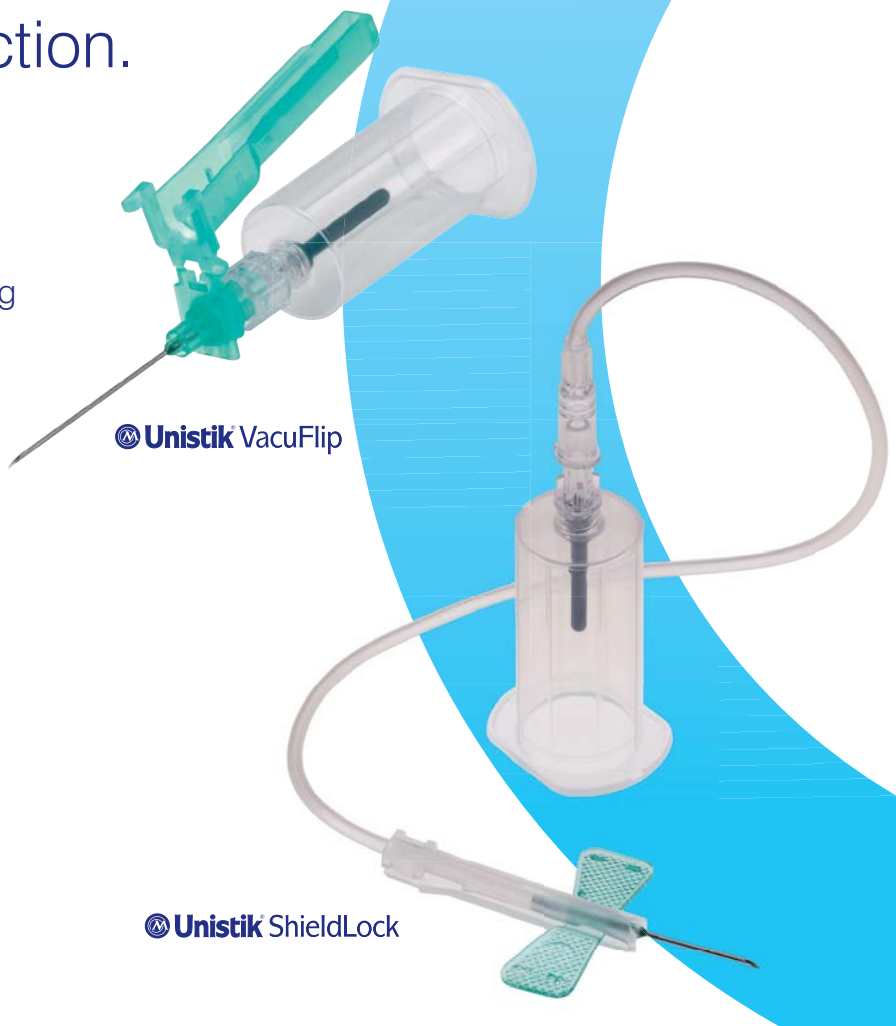
NOW AVAILABLE!

Unistik®

Venous Blood Collection

Designed for **simple** and **safe** blood collection.

Unistik® VacuFlip and Unistik® ShieldLock are engineered for **intuitive** blood collection, featuring easy to use **safety mechanisms** that can help reduce the risk of needlestick injuries. Unistik® Blood Collection devices are **cost-effective** and designed to not compromise quality or safety.



Scan here to learn more!

OWEN MUMFORD

For more information, **call 1-800-421-6936**
or visit **owenmumford.com**

BCAD23/OMI/0823/1/US

SURGICAL/CRITICAL CARE

Horizon-scanning next-generation surgical beds, tables, exam chairs

Could patients be in the recline, ride of their lives?

by Rick Dana Barlow

621037713 © LAYHONG| stock.adobe.com

Whether you're an inpatient or outpatient at a hospital or ambulatory surgery center, meeting with your doctor or surgeon at a clinic or physician's office, chances are high that you as a patient have draped your body onto a surgical bed or table or folded your frame into an exam or procedure/treatment chair.

Although classified as medical/surgical equipment, these beds, tables and chairs represent a trio of patient-centric workhorses seeing as how the patient likely spends the most of his or her time on any of them during an appointment or stay of any length.

Yet over the decades this trio has undergone a wealth of updates and upgrades – both technological and mechanical – so that to borrow and adapt a refrain from an old car commercial, they are not your father's surgical beds and tables and exam and procedure/treatment chairs anymore.

As a result, *Healthcare Purchasing News (HPN)* tapped the foresight of executives within several of the leading manufacturers of this medical/surgical equipment as a creative glimpse ahead of "what could-what might-what should" be in a future view of this foundational equipment in inpatient and outpatient settings.

Disclaimer: HPN explicitly advised sources not to share any trade secrets, upcoming design revelations or product manufacturing plans in their responses. HPN just asked them to "imagine what if" to tickle the possibilities. As a result, none of what is shared represents any indication or intent of product design/manufacturing direction. The goal was to motivate ideation and open-mindedness that is entertaining, informative and maybe just a little bit profound.

What providers need

Surgical beds and tables and exam and procedure/treatment chairs may seem like bread-and-butter, meat-and-potatoes medical/surgical equipment, but that doesn't necessarily mean providers cannot get creative and flexible in making effective and efficient use of them for workflow and patient benefits.

August Boehnlein

August Boehnlein, associate marketing manager, Midmark, chuckles at the thought and waxes philosophical.

"With so much focus on wants and needs for the future of healthcare, this made me think of an anonymous inspirational quote, 'Focus on what you want, but never forget to be grateful for what you already have,'" he indicated. "How can we as healthcare manufacturers, providers and even patients utilize what we already have, to create a better healthcare environment in the future?"

Then Boehnlein migrates to the metaphysical to put things in perspective.

"At Midmark, we do not just manufacture exam and procedure chairs, we design fully integrated healthcare ecosystems that help improve the clinician's ability to work in a more effective and efficient workflow that not only save the provider time but can also improve the overall experience and outcomes for the patient," he noted. "When designing an exam room that promotes a more effective and efficient workflow, we focus on the needs of both the patient and the provider. Both need an exam chair that is not just comfortable but is also easy for the patient to transfer on and off, and easy for the provider to position the patient, especially when a patient has a mobility challenge."

Boehnlein refers to the "Next-Generation Surgical Beds & Tables, Exam & Procedure/Treatment Chairs Grid" as showcasing useful capabilities and features that share a common goal – to create a more effective and efficient workflow by decreasing the workload on the clinical staff.

"One way to accomplish this goal is to have an exam chair that allows the patient to transfer on and off without help," he explained. "This allows the patient to feel more independent while also reducing the burden on the staff. Having an exam chair with a powered base and backrest that allows the provider to easily position

the patient further reduces the strain on the clinical staff, which can improve the exam room workflow.

"However, patient transfer and positioning are only the beginning of the patients' experience – what about during the actual exam or procedure?" Boehnlein continued. "When designing a healthcare ecosystem that promotes an efficient and effective workflow, we want to help ensure that providers have everything they need, not just in the exam room, but at the point of care.

"For example, providers can utilize a mobile treatment cabinet to position their supplies to be within arm's reach throughout the duration of the exam or procedure," he noted. "This way, providers can focus on the patient's needs during the entirety of the exam instead of spending valuable time away from the patient, grabbing supplies in another room. Should providers need an additional work surface for the exam or procedure, a mobile treatment cabinet can be used, or providers can utilize a mobile workstation to place their laptop or other device on, right next to them and the patient. Instead of providers having to constantly leave the patient's side or the room to get everything they need during the exam, what if we design everything they need to be easily positioned at the point of care?"

For Boehnlein, this encompasses the exam chair, mobile treatment cabinets, workstations, lighting and vital signs devices, which represents everything Midmark manufactures for the clinical setting.

Julie Brewer, president, Patient Support Systems, Global Surgical Solutions and Care Communications, Baxter International, which owns the Hillrom brand of equipment and products, emphasizes convenience.

Julie Brewer

"Care teams are overwhelmed and overloaded and don't need more steps added to their workflows and procedures," Brewer said. "The best way to get more value out of an existing bed and surgical table fleet is to focus on the features that either remove manual work, like documentation, or can remove steps from the normal workflow in that care area." With her extensive background in care and connectivity solutions and patient support systems, she has her palm on the pulse of operational demands.

"For example, we sometimes see beds that have the ability to connect to their nurse call system, but the hospital hasn't activated the connection," she noted. "While it takes some effort to integrate beds and nurse call systems, it can help streamline the information flow to the care team, especially by providing alerts and information outside the room, whether delivered on a dome light or to a mobile device.

"Another potential area for efficiency is to enable remote asset tracking and remote service capabilities," Brewer continued. "Knowing where every bed in the hospital is currently, seeing use status and accessing potential service issues from a central app can save valuable staff time and make sure the fleet is being used as efficiently as possible."

What providers want

Suppliers prefer to be plugged into the needs and wants of their provider customers, particularly involving high-cost medical/surgical equipment. The astute recognize and understand that forward-thinking providers seek convenience, convergence, compatibility and portability, among leading concerns.

"First and foremost, our customers are looking for more integration of the devices and systems within the care area," Baxter's Brewer assured. "We see this as the first step in bringing together data from different sources so that it can be made actionable for the care team, both for real-time decisions and to identify trends that can impact efficiency and quality performance. Right now, most equipment and devices are disconnected, leaving untapped potential for connectivity solutions that bring that information together seamlessly.

"In the operating room, we believe that OR integration is the future and that goes beyond the surgical table," she insisted. "OR integration can help with faster room setup and turnover, provide access to valuable patient information during the procedure and connect members of the care team who are outside of the OR."

For Midmark's Boehnlein, the key terms center on workload and workflow.

"Like the impressive future capabilities and features listed [in the grid], the key capabilities and elements that we have heard end users say they need or would like to have on their exam or procedure chairs all center around reducing the workload on the clinical team to promote a more effective and efficient workflow that improves the experience and outcomes for the patient," he noted.

Boehnlein recognizes that whether ambulatory or acute care, the future needs and wants of healthcare systems intersect and many may already be available to them.

"With the recent pandemic, one of the biggest needs end users continue to focus on is infection prevention," he indicated. "Having removable and seamless upholstery that is easily cleaned and disinfected

Baxter's Progressa+ ICU bed

Baxter's TS 7000 Operating Table

not only saves the clinical team time but also prevents the transmission of harmful contagions. Similarly, having an exam or procedure chair that is mobile allows the clinical team to clean the floor underneath the chair to keep the exam room clean more effectively and efficiently for each and every patient visit.

"Often, the needs and wants of providers are really focused on the needs of the patients," Boehnlein continued. "For example, many end users want a fully ADA-compliant height adjustable exam chair that allows the patient to independently transfer on and off the exam chair and allows the provider to easily position the patient. Having an exam chair with these two qualities can help improve the exam room workflow and the patient care experience."

Still, Boehnlein notes that patients offer helpful perspectives, too.

"Sometimes end users want something as simple as a comfortable exam or procedure chair that provides a stress-free calming environment for the patient. A patient feeling stressed or anxious can inhibit an efficient workflow and negatively impact the patient's overall care experience," he noted.

Flexibility and versality remain important, too, according to Boehnlein.

"Often, end users want an exam or procedure chair that is versatile enough to allow clinicians to use the same chair for different clinical functions," he said. "For example, simple features like standard

built-in paper roll holders, debris trays, and even stirrups are often requested by the end user to increase the capabilities and functionality of the chair. Having exam or procedure chairs that are compatible with common accessories like knee crutches for OB/GYN exams and procedures or articulating arm boards for hand procedures, further increases the functionality and the versatility of the chair for the end user.

"A versatile exam or procedure chair that can be used for many different clinical functions reduces the care space required by the end user, which helps to promote an efficient workflow by reducing the workload on the clinical team while also improving the overall experience and outcomes for the patient," he added. **HPN**

Spanning the spectrum of potential technological development

Next-generation surgical beds, tables and exam, procedure/treatment chairs inspire promise

How do surgical equipment experts categorize next-generation beds, surgical tables and exam and procedure/treatment chairs along a spectrum that spans complete luxury, luxury-leaning, even, necessity-leaning and complete necessity? Check out *Healthcare Purchasing News*' Next-Generation Beds, Surgical Tables and Exam Chairs Grid to learn where they generally assigned options from a list of 17 potential choices with the option of suggesting their own.

Disclaimer: HPN explicitly advised sources not to share any trade secrets, upcoming design revelations or product manufacturing plans in their responses. HPN just asked them to "imagine what if" to tickle the possibilities. As a result, none of what is shared represents any indication or intent of product design/manufacturing direction. The goal was to motivate ideation and open-mindedness that is entertaining, informative and maybe just a little bit profound.

NEXT-GENERATION SURGICAL BEDS & TABLES, EXAM & PROCEDURE/TREATMENT CHAIRS

COMPLETE LUXURY

- Per Scandinavian design, beds, chairs, tables (when not occupied) equipped with movable shelving underneath that can be folded upright into a wall as intact usable shelving folds down.
- Articulating robotic arm attached to handrails to retrieve products/supplies nearby.
- Augmented/virtual reality (AR/VR) headgear for communication, education, entertainment, information, instructions, etc., attached to handrails.
- Multi-sensor mobile overlay that arcs over the bed, table or chair and can be moved along the handrails, enabling/facilitating body scanning.

LUXURY LEANING

- Automated drive capabilities for easier movement within rooms, along hallways, etc. (e.g., remote-control activated or ceiling/doorway/floor-mounted sensors, etc.) akin to automated guided vehicles (AGVs).
- Equipping handrails with flatscreens either directly or via articulating arm that enable caregiver and patient to access multimedia and electronic records safely and securely.

EVEN

- Pinoles in mattress that enable air to circulate to prevent pressure sores.
- Frame coated/constructed with antimicrobial materials for easier and more thorough cleaning and decontamination.
- Handles, rails equipped with mobile ultrasound and X-ray imaging devices.
- Capability of folding bed, table or chair (when unoccupied and without mattress or cushions) into smaller, more compact packages for easy transport and UV disinfection/sterilization.

NECESSITY LEANING

- Mattress consisting of/filled with air, foam, gel or water that can be adjusted for firmness or softness, cooling or heating.

COMPLETE NECESSITY

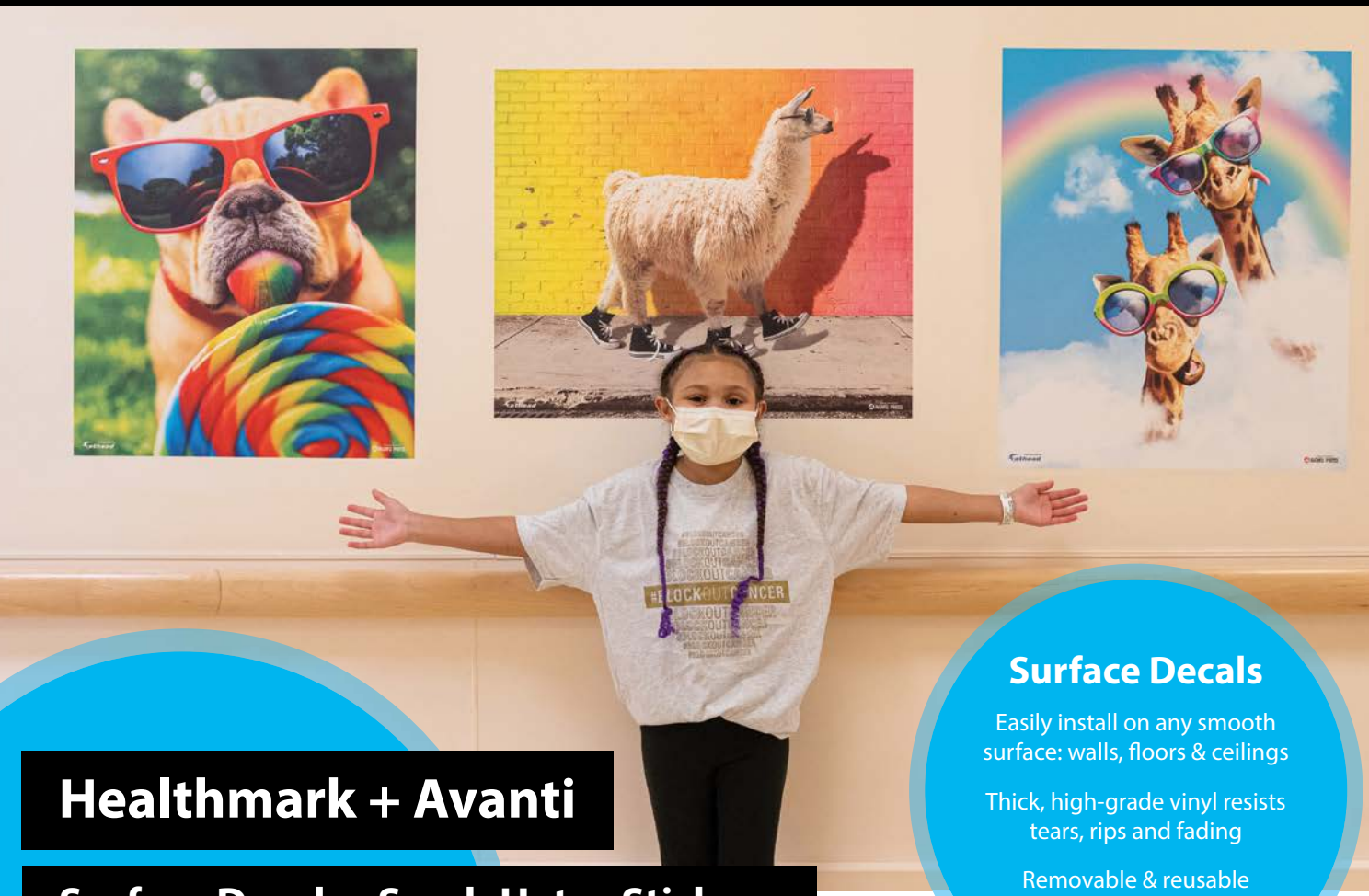
- Fiberoptic threads or sensors in mattress that track body positioning and send alerts for movement reminders. "Microclimate management in air mattress to remove excess heat and moisture from the skin to help prevent pressure sores," suggested Julie Brewer, president, Baxter International.
- Wireless tracking of selected vital signs (e.g., weight from frame "scale," blood pressure from wrist-worn sensors, etc.). "We already offer this feature on our Centrella med-surg bed," Brewer noted. "More information here: Continuous Patient Monitoring Device with EarlySense | Hillrom."
- Handheld automated positioning that facilitates sitting postures and assistance to get up and out for restroom breaks, walking and wheelchair access.
- Adding articulation points to Trendelenburg positioning to accommodate easier access to all four limbs.
- Product/supply cubbies attached to handrails that may house such items as tissues, etc. so patient doesn't have to reach for the adjacent cabinet/end table, overbed table or call a nurse for assistance.
- Small beverage cask attached to the bed, chair or table that enables patient to drink via sterile rubber hose (and not have to reach for the cup on the adjacent cabinet/end table or overbed table or call a nurse for assistance). Think of the racecar driver drinking through a hose attached to the helmet to cool off during active competition or in pit lane.

OTHER LUXURY

- "An inpatient bed that can massage patients for increased comfort," said August Boehnlein, associate marketing manager, Midmark.

OTHER NECESSITY

- Attached multimedia screens that allow EMR connectivity but also allow patients to virtually connect to, and communicate with, family/visitors during and/or after exam," Boehnlein continued.
- "A fully functional and reliable AI system (like Amazon's Alexa) on exam chair that automatically inputs information, in real time, from the exam into the patient's EMR, saving the provider time by preventing them from having to manually input patient information. This AI system can also use the information to recommend prescriptions/treatments for the provider to prescribe to the patient," Boehnlein added.
- "Automatic measurement of the height and calculation of tidal volume (using the weight and the height measured by the bed)," Brewer indicated.
- "Automatic calculation of ICU parameters using the surface as invasive pressures (arterial pressure) SPO2 with the surface," she continued.
- "Closed loops of response with other devices (e.g., the ICU bed goes to CPR position if the monitor detects an atrial fibrillation (AF))," she recommended.



Healthmark + Avanti

Surface Decals • Scrub Hats • Stickers

Help alleviate stress & bring smiles to patients in healthcare facilities with bright colors & playful characters

Surface Decals

Easily install on any smooth surface: walls, floors & ceilings

Thick, high-grade vinyl resists tears, rips and fading

Removable & reusable design is safe for surfaces

Scrub Hats

Available as reusable or single-use

Reusable caps are made of pre-washed 100% cotton fabric

Single-Use Caps are made of spun lace non-woven rayon material

Stickers

Avanti stickers are a great way for staff to add a little fun to a serious dress code

Printed with a variety of fun characters

Can be worn on clothing or placed on anything throughout the facility

healthmark

hmark.com

800.521.6224

healthmark@hmark.com

Sanford Health's Instrument Quality Conundrum

Lead coordinator, Central Processing/Surgical Services at Sanford Health shares with Healthcare Purchasing News how she became a water quality expert

By Janette Wider

In 2021, Sioux Falls, S.D.-based Sanford Health's sterile processing department (SPD) received a conditional level finding from the Joint Commission due to poor instrument quality. The finding came with an increase in executive leader engagement and pressure to fix the problem. The Sterile Processing leadership team worked 6-7 days a week for several months to go through all of the instrumentation, repair, replace and educate to new practices. The Joint Commission conducted the revisit, and the team was successful in showcasing the work they had done and plans to continue the work in the future.

With the addition of about $2.5 million of new instrumentation in the department, 2022 was off to a great start. Or so it seemed, that is until some instruments started to show signs of rusting and staining. Following the education provided the year prior, team members brought forward the instruments and a thorough investigation started. This investigation started with looking at techniques for washing instruments, assembling, and sterilizer practices. Sanford SPD equipment vendor Getinge was assembled and found no deviation from IFU guidelines or equipment functionality. Still, rusting was happening before sets were ever used on patients.

Healthcare Purchasing News (HPN) spoke with Lori Buskol, lead coordinator, Central Processing/Surgical Services at Sanford Health about this very situation to gain her perspective.

One of the main challenges after the visit from the Joint Commission, Buskol says, was that Sanford Health has tens of thousands of instruments and thousands of instrument sets. She comments, "We had to start making spreadsheets immediately on everything that we owned and that wasn't even everything that we owned that is used in the operating room, it was everything that we used at our clinics too."

Lori Buskol

"We had one person on our team who was really good at getting these spreadsheets put together and a few team members that were really good at finding instruments, which can be very challenging when you have a facility of our size," Buskol adds. "We had 30 days to do this process before the Joint Commission was rescheduled to do their revisit. That is not a lot of time to ensure we got through everything. The staff was very engaged in this process, there was a ton of information given out to them. We do three reports per day for each shift, and we would talk about what the instruments needed to look like."

Buskol notes that there was a lot of education for the team, even so much so as having their mobile repair vendors come in and help by educating staff as to what to look for and what needed to be done. Even the purchasing team was educated on what instruments to order.

"This was extremely challenging because this was also during COVID, so everything was on back order," she says. "We had to come up with a process for instruments that were still good to use but needed to be replaced fairly soon—how we kept track of those to make sure we could gather them later when the replacements came in."

Buskol goes on to explain that when new instrumentation came into the facility, they were put through a unique device identifier process that was very time consuming. As she was working on this process, the team realized that the new instruments were just not holding up as well as they should. There were issues with rusting before instruments were even used.

This lead Buskol's team to a water investigation. She tells *HPN* that she ran numerous tests and increased their reverse osmosis (RO) water to have a longer run cycle in their washers, which helped a bit. But she still couldn't pinpoint where the problem was. "The more I looked into this, I noticed people on sterile processing websites talking about their instruments rusting and water quality being an issue," she comments. "So, I started doing a lot of research on water quality."

Through experimenting, rusting was isolated and found to be happening from the wash cycle. Sanford's instrument repair partner Agiliti started putting an additional passivation layer on the instruments to try and protect them, but rusting was still showing up. It wasn't happening to every

instrument, but it was happening to all of the new instrumentation throughout a variety of manufacturers. The SPD team leaned into the project trying to figure out what was happening but also trying to communicate to all customers to alert them of the issues.

At the end of 2022, an Aesculap Technical Process Analysis (TPA) was conducted to see what was happening. The results concluded that the water conductivity was three times as high as it should be. To remedy this problem, Aesculap has recommended switching to all critical/RO water for the entire washer cycle. In experimenting, this has eliminated the rusting on the instrumentation that hasn't built up the passivation layers.

Buskol is now known as a water quality expert at Sanford Health. The advice she gives to SPDs? "All over the nation, people right now don't even realize that maybe the situation that they're having with their instruments involves water," she states. "But it does a lot of times. It often goes to that whether it's the steam coming out of the boilers, whether it's your RO system, whether it's your water that you use straight from the sink, your city water that comes in, those were all things that I looked at investigated with. I tried to find the leading experts around our area to pick their brains and figure out what kind of information there is."

Buskol concludes, "And don't be afraid to have a voice. You have a voice in sterile processing. You just need to be brave enough to use it." HPN

Q&A: Air/Steam/Water Quality

Jonathan Wilder

Healthcare Purchasing News had the opportunity to connect with Jonathan A. Wilder, Ph.D., managing director, Quality Processing Resource Group, LLC on air, water, and steam quality, as well as his experience contributing to AAMI ST108

What are the risks of contaminated air/water/steam?

The most important thing in instrument processing is not to put anything into or leave anything in the patient that doesn't belong there. This includes lubricating oil or water condensate from air compressors, high levels of water-borne or steam-borne chemical impurities and water-borne biological contaminants like bacteria and endotoxins. Any of these can result in pyrogenic or infectious outcomes for the patient. These can lead to infection, pain due to local poisoning or even death.

What contributes to contaminated air/water/steam in a hospital/facility?

The starting materials for air, water, and steam are never ideal for the end use of each. Each must be cleaned up before it is used.

Before air is compressed, it should be filtered to remove dust, bacteria and other contaminants. Compressing air generally involves using compressors that require oil for their proper function. This oil can be taken up into the compressed air. Similarly, humidity in the air that is compressed tends to condense as the air is compressed and can rust the compressed air tank.

Air as delivered to points of use by the HVAC system should always be suspected as a carrier of pathogenic organisms. Because it can carry them.

Water as it comes from municipal or well supplies is generally good for drinking, but even that is sometimes questionable. Water that meets the EPA drinking water standards can have far too much in the way chemical or biological contaminants to be appropriate for patient use. High chemical loads hinder the action of detergents or require using a lot of detergent which can be difficult to remove from the instruments. High biological loads can cause pyrogenic reactions (endotoxins) or infection (bacteria).

Steam is made from water. But how it is made requires attention to the end use. In normal usage in healthcare, large, central boilers are used that need chemical additives to be used to maintain the boiler's integrity and avoid corrosion. Some of these have no effect on patients or instruments. Some, like amine additives, can be problematic leading to staining of instruments if there is an overdose. The needs of sterile processing are more exacting than the needs of the rest of the steam system. For local boilers, using tap water is not a good idea since any chemical contaminants will tend to be left in the boiler or sterilizer or on instruments, leaving a stain or encrustation that compromises instrument function.

What are the main challenges/solutions to dealing with this problem?

Like anything else, the details matter. But everyone in the chain of provision of compressed air, HVAC air, water and steam must be aware of these details, i.e., the requirements for these utilities as they apply at the point of use to ensure that they are supplied in accordance with what is needed.

Have there been any advancements recently in this area?

Some solutions are old, and some are new. For air, the use of UV to eliminate disease-carrying organisms is relatively new as applied in HVAC systems. Older solutions are valid solutions to the problem of keeping air safe for its use. These include HEPA filtration for local delivery of HVAC air to critical areas, coalescing filters and chillers for compressed air.

For water, it's a matter of attending to filtration and modifying chemistry if needed. This is not new, but it is becoming more and more evident that it is needed.

For steam, the story is mostly the same as always except that some sterile processing departments are migrating to process (clean) steam that is generated from RO or better water. This requires adequate supplies of deaerated RO or better water and stainless steel boilers, piping, and sterilizer plumbing, valves, and chambers.

Can you tell me about air/water/steam quality when it comes to hospital audits?

AAMI ST79, "Comprehensive guide to steam sterilization and sterility assurance in health care facilities" and AAMI ST108, "Water for the processing of medical devices" set the acceptance criteria for these utilities. Auditing on the technical side requires that the different utilities be measured for the quantities listed as critical in these standards. Sometimes, the measurements show that some items are compliant, but on the margin of acceptability. In these cases, an audit should recommend that measures are taken to get the item in question away from the margin and provide a safety margin to ensure that things don't go wrong if a minor disturbance to the supply takes place.

Can you share your experience with your contribution to AAMI ST108?

Helping to create ST108 was an honor and a lot of fun, because I was able to help create something that will help many people get their instrument processing to a better place. My specific contributions included but were not limited to being instrumental in creating new language around risk analysis, structure of the document, water quality for steam, and, in collaboration with a team of other experts, creating at least one of the annexes.

Any parting words of wisdom?

Good processing begins and ends with good utilities like air, water and steam. Sterile processing's needs are different than other parts of the healthcare facility. Sterile processing is the only place in the healthcare facility where these utilities actually contact things that are used on and in patients. So, the bar is higher, because patient outcomes can be affected.

Aligning on aeration, drying, storage and transport standards

by Kara Nadeau

321811567 © olgasparrow | stock.adobe.com

As if the work of sterile processing (SP) professionals wasn't complex enough, advances in medical and surgical technologies continue to present them with additional challenges. This is certainly the case with endoscopes and other medical/surgical devices and instruments with channels, lumens, and other hard to see/hard to reach areas.

Beyond cleaning and disinfecting these items is the challenge of aeration and drying, with U.S. guidelines recommending flexible endoscopes with channels be dried for a minimum of 10-minutes (or until no visible moisture remains).[1, 2]

In the typical SP department with limited instrument inventory, staffing challenges, and pressures to turn these items around quickly for subsequent procedures, 10 minutes can seem like 10 hours in the face of competing priorities.

And then there is the challenge of storing and transporting scopes and devices in a way that keeps them free from contamination.

Aeration, drying, storage and transport isn't a new topic, but it is one that warrants further discussion. *HPN* contacted SP leaders and industry experts for their insights and best practices in this area of reprocessing.

Planning ahead: the Sanford Hospital Sioux Falls story

The Sanford Hospital Sioux Falls Central Processing/Surgical Services department processes mostly bronchoscopes, nasopharyngeal scopes, and laryngoscopes for the operating room (OR) and respiratory teams, while the hospital's GI department processes its own endoscopes.

HPN spoke with the hospital's Lead Coordinator, Central Processing/Surgical Services Lori Buskol about her department's scope/device aeration, drying, storage and transport processes. She described how she and her team keep up with changing standards and recommendations and offered advice to other SP teams facing similar challenges.

Lori Buskol

It pays to stay ahead

"It feels like every few months there is a small change in scope processing guidance," said Buskol. "The more investigating they do with the scopes, they more they learn, and we must configure those learnings into practices for our team members to employ."

The Sanford Hospital Sioux Falls SP team takes a proactive approach to endoscope processing standards. Buskol, who serves as the department's instrumentation lead coordinator, and the quality lead coordinator, are constantly reading the latest endoscope processing recommendations and updates to manufacturer instructions for use (IFUs). She stated:

"Endoscopes has been a huge vocal point for the past couple of years and we can see these changes happening. We try to get ahead of it with our team by looking into things - what does the research show, what are industry associations saying, what do they anticipate for changes, will there be recommendations or suggestions? If they are starting to use certain verbiage, we feel we should probably take that next step and investigate it."

"We spend so much time researching before it becomes a problem," she added. "We find it's very helpful because it always keeps us ahead. We want to be there and ready so when The Joint Commission visits us, they will say 'you're a step ahead.' And that's what we want to be."

Every Monday, Buskol and the quality lead coordinator meet with their department

manager and supervisor and the four of them read through all their findings, discuss whether changes in scope processing should be made, and if so, where they need to update their protocols and practices.

"If we find a potential change that must be made, we start testing out the change ourselves to determine if we need new equipment or supplies," Buskol explained. "Then our manager presents our findings to the hospital executive team so they provide the resources for us to adapt processes to implement changes, order the necessary supplies and equipment, and develop the documentation behind why we should be doing it."

Putting planning into practice

Sanford Hospital Sioux Falls SP team's work to stay ahead has been demonstrated in their scope aeration, drying, storage and transport processes, which align with ANSI/AAMI ST91:2021, Flexible and semi-rigid endoscope processing in health care facilities.

Aeration and Drying

ANSI/AAMI ST91:2021 emphasizes how the channels of high-level disinfected endoscopes must be dry before storage to help prevent bacterial growth and the formation of biofilm. The standards cite the preference for methods that employ active drying of endoscopes with filtered air, noting how some storage cabinets can be used to both secure processed scopes and circulate air through them.

Sanford Hospital Sioux Falls has a scope drying cabinet in its SP department, and alongside it Buskol and her team have developed tools to guide technicians on best practices for using it.

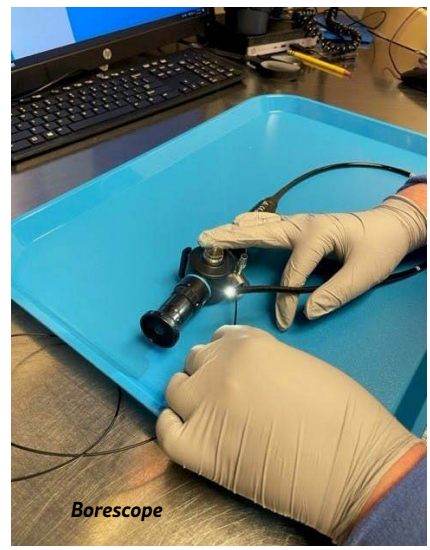
"We provide users documentation on every scope that we receive in our area as to what size tubing and connectors it requires. That way, team members know exactly what to use for each specific scope when hooking it up in the cabinet for the 10-minute dry cycle."

Inspection and testing

ANSI/AAMI ST91:2021 noted that if a drying cabinet is not used, dryness can be checked by using dryness indicators. The Sanford Hospital Sioux Falls SP team covers all its bases by using these indicators to test following the drying cycle.

"Each day we perform a test on all our scopes to ensure they are dry, and we have our calibration set up correctly," said Buskol. "This is done by putting colored paper made for the purpose on the distal end of the scope, which reveals whether there is any residual moisture."

Dri-Scope Cabinet Hookup



Borescope

Cabinet kept in the OR

Per ANSI/AAMI ST91:2021 visual inspection recommendations, the team employs lighted magnification and borescopes to inspect processed endoscopes. Starting with just one borescope used for cannulated orthopedic instrumentation, the fleet has now grown into 10 borescopes located in decontamination, the scope room and every assembly station.

As with every step of scope processing, reinforcing best practices is critical in the inspection process. Because there can be confusion among technicians as to which scopes should be inspected with lighted magnification versus borescope, Buskol has developed a guidance document that technicians can easily access and understand. She commented:

"Some bronchoscopes and nasopharyngeal scopes have very small lumens, and our borescopes go down to just 2mm inside. We want to avoid someone trying to force a borescope down a lumen when it may not fit because they will harm the scope. To clear up any confusion, we've developed a list of all our scopes, their part/model numbers, what size brushes and swabs should be used and whether inspection should be performed with lighted magnification or a borescope."

Storage

ANSI/AAMI ST91:2021 emphasizes the importance of proper scope storage in both protecting scopes from contamination and damage, and identifying those that are "patient ready" as opposed to those that have not been processed with liquid chemical sterilants (LCSs) or high-level disinfectants (HLDs).

Sanford Hospital Sioux Falls employs a two-cabinet process for storage, with one dry scope cabinet in the SP department and the other in the operating room (OR) clean core, as Buskol explained:

"That way, we always keep them hanging and aerating to ensure they stay clean and dry. Furthermore, with the two-cabinet process, everyone knows where the scopes are stored, as opposed to storing them in a cart that could end up somewhere they can't easily find them."

Transport

"Scope transportation was our biggest, most difficult process," said Buskol. "Because we are in the basement with the OR two floors above us, we had to map out all the touchpoints in the transport process

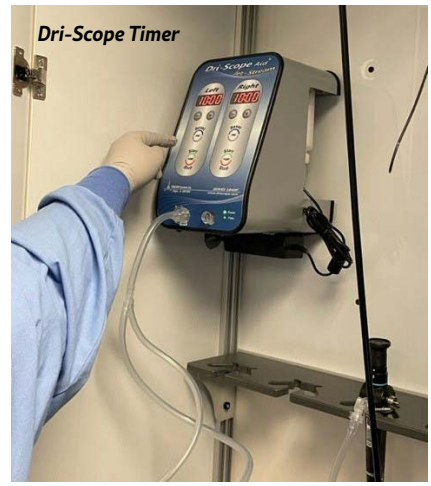
and opportunities for recontamination of clean scopes."

With the two-cabinet process, transport is relatively simple. Using closed containers, the SP team transports the scopes to the cabinet in the OR core and hangs them there. The challenge is keeping the scopes clean during handling.

Hand hygiene and use of personal protective equipment (PPE) are highlighted in ANSI/AAMI ST91:2021, noting how users should don new, clean, non-latex gloves immediately before removing an endoscope from the storage cabinet. Buskol and her team have put into place processes to help drive compliant scope handling.

"We have gloves attached to the dry cabinet for staff to don before removing a scope," said Buskol. "We also have sani wipes so they can clean surfaces, such as the cabinet handles, after touching them."

In fact, Buskol emphasizes the importance of hand hygiene to the team throughout each step of scope processing. When developing their standard processes, she met with the hospital's infection control practitioner, and they determined at what points in each process staff members should don a new pair of clean gloves. Buskol translated this into practice by placing hand symbols in printed staff guidance documents to clearly indicate when it's time for a glove change.



Dri-Scope Timer

Advice to others

When asked what advice she has for other SP teams in driving scope aeration, drying, storage and transport best practices, Buskol stated:

"If you want to be prepared and don't want to end up under the wire when scope processing guidance changes again make sure to constantly do your research. If one of the standards bodies suggests a new practice, expect that it's likely to become a recommendation in the future. And then trial it."

"When a new suggested practice arises, we establish our process and supporting documents, watch someone unfamiliar with the process try to complete it, grade their success and if they have problems change the process/documents accordingly."

"Because remember, those of us in department leadership positions can't possibly be at each team member's side each time they perform a task to answer their questions. Therefore, you need to provide them with tools that detail each step so they can troubleshoot on their own." HPN

References

1. ANSI/AAMI ST91:2021 Comprehensive guide to flexible and semi-rigid endoscope processing in health care facilities

2. Association of periOperative Registered Nurses (AORN) revised Guideline for Processing Flexible Endoscopes

Industry insights on the topic

Endoscope manufacturers and processing equipment suppliers offered their advice on scope aeration, drying, storage and transport, including how to make the case to hospital leaders for investments in these processes:

Doug Brown, Director of Sales & Marketing, Torvan Medical

"Research drying of endoscopes. There is a lot of excellent data out there from key opinion leaders on the clinical necessity for it. The same can be said for borescopes. You can also show an ROI for a scope drying cabinet by citing standards that state an endoscope stored in a proper endoscope drying cabinet, in a lot of cases for up to 7 days, does not need to be reprocessed again prior to a procedure, where a scope not properly dried needs to be reprocessed again before a procedure. There is not only a cost savings on unnecessary reprocessing, but also on the wear and tear on an endoscope caused by repeated reprocessing."

Ann Hewitt, Vice President of Sales and Marketing, Cenorin

"There are compelling financial and infection prevention reasons for thoroughly drying devices when they come out of an automated washer-disinfector. Many SP staff are familiar with the potential for cancelled low-temperature sterilization cycles when moisture is detected. They recognize that the cost to re-clean, re-disinfect, re-dry and re-package the contents of that load added to the cost of using an additional container of sterilant is considerable, in both materials and labor. Completely dry instruments would prevent these cancellations."

"They also prevent moisture-related issues in the OR. No one wants to hear from the OR that there was a strike-through, or that a robotic arm has droplets coming out of it. The cost to carry additional inventory for replacement when there is a moisture-related event coupled with the wait-time for the OR is relatively high. Decreasing inventory and increasing OR readiness and satisfaction are ample reasons to improve instrument drying."

Richard Radford, CEO, Cenorin

"The same could be said about washer/thermal high-level disinfectors (pasteurizers). Many hospitals are reviewing the use of single patient use (SPU) plastic devices and switching to reusable devices. All these devices involve cleaning and exposure to water and require drying to safely complete the process for safe next use."

Eric S. Smith, Infection Prevention & Control Specialist, Olympus

"Take the time to lay out and visually understand your reprocessing/sterile processing flow and identify where drying/storage/transport fits. Most guidelines recommend assigning designated physical space for functions such as drying/storage. It's important to understand how much space is available to perform that function, which may impact your review process and next steps."

"It's also important to understand the number of procedures being performed vs. the number of devices that need to be dried/stored/transported. Take that a step further and identify the number of devices that need to be dried/stored/transported per hour/per day to meet your procedure volume. This will help you understand the number of drying devices your facility needs and may impact the purchase you make."

50 SERIES MEDICAL DEVICE DRYERS... YOUR PRODUCTIVITY PARTNER

Tired of waiting for instruments and containers to dry?

Fed up with cancelled low-temp sterilization cycles?

Supporting an O.R. that needs everything STAT?

Meet your new best friend!

- **Minimize cancelled low-temp sterilizer cycles with complete and predictable drying**
- **Increase throughput by drying large loads of containers in under an hour**
- **Load 10 robotic arms in 2 minutes and dry them in 30**
- **Maximize workflow efficiencies with unique drying technologies**
- **Meet AAMI and AORN guidance for thorough drying before sterilization**

cenorin.com I Toll Free: 1-800-426-1042 I Int'l: 1-011-1-253-395-2400

CENORIN

HEALTHCARE PURCHASING NEWS

SELF-STUDY SERIES Sponsored by 3M Health Care

Sterilization Choices for the SPD

by Craig Wallace

December 2023
The self-study lesson on this central service topic was developed by 3M Health Care. The lessons are administered by Endeavor Healthcare Media.

Earn CEUs

After careful study of the lesson, complete the examination online at educationhub.hpnonline.com. You must have a passing score of 80% or higher to receive a certificate of completion.

Certification

The CBSPD (Certification Board for Sterile Processing and Distribution) has pre-approved this in-service for one (1) contact hour for a period of five (5) years from the date of original publication. Successful completion of the lesson and post-test must be documented by facility management and those records maintained by the individual until recertification is required. DO NOT SEND LESSON OR TEST TO CBSPD. For additional information regarding certification, contact CBSPD - 148 Main Street, Suite C-1, Lebanon, NJ 08833 • www.cbspd.net.

HSPA (Healthcare Sterile Processing Association, https://myhspa.org) has pre-approved this in-service for 1.0 Continuing Education Credits for a period of three years, until November 1, 2026.

For further information, direct any questions to *Healthcare Purchasing News* at editor@hpnonline.com.

LEARNING OBJECTIVES

1. *Review the fundamental principles of medical device sterilization.*
2. *Discuss the most common sterilization methods used in hospitals.*
3. *Examine the quality control tools used for hospital sterilization processes.*

Sponsored by:
3M Health Care

Proper sterilization of surgical instruments is critical to infection prevention and patient safety. The sterilization process breaks the chain of infection by preventing transmission of pathogens between patients. Hospitals today can choose between different sterilization processes to accommodate the broad array of medical device designs and materials. Rigorous sterilization quality control programs help ensure that the devices are safe and ready for patient use.

Sterilization Fundamentals

The term "sterile" means"free from viable organisms."[1] It is impossible to conduct microbiological laboratory tests on the medical devices themselves to determine if they are sterile, as these tests would render the devices unfit for use on patients. So, the determination of sterility will be based on the original validation of the sterilization process supported by rigorous testing of each individual sterilization cycle (more on this testing later in this article). In the United States, sterilizer manufacturers are required to demonstrate that each programmed sterilizer cycle is validated under laboratory conditions and demonstrate to the U.S. Food and Drug Administration that the sterilizer achieves the required level of effectiveness and safety.[2]

In addition to the sterilizer itself, the effectiveness of the cleaning process is critical to the overall success of the sterilization process. The CDC Guidance for Disinfection and Sterilization states: "Cleaning reduces the bioburden and removes foreign material (i.e., organic residue and inorganic salts) that interferes with the sterilization process by acting as a barrier to the sterilization agent."[3] Careful adherence to cleaning instructions provided by the sterilizer manufacturer or the medical device manufacturer will help ensure that the sterilization process will perform as intended and the processed devices will meet the required level of safety.

Packaging is also an important factor in the sterilization process. The packaging system is intended to protect the sterile medical device from any environmental contamination until the instrument is presented for use on the patient. The healthcare facilities' packaging procedures should be based on instructions for use from the sterilizer manufacturer, medical device manufacturer, and packaging system manufacturer.

Today's Sterilization Processes

There are two general types of sterilization processes available to the hospital. The first is high temperature sterilization, which is accomplished by steam sterilization. The second is called low temperature sterilization. Low temperature sterilization processes rely on chemical action rather than physical effects. The most common low temperature sterilization process used in healthcare is vaporized hydrogen peroxide (VH2O2).

Steam sterilization

Steam sterilization is considered a physical sterilization process. It relies on saturated steam, that is, water vapor that is in a state of equilibrium between the gas and liquid phases. The steam condenses on surfaces and releases energy that will kill the microorganisms present on the surface. Steam will transfer heat energy to a medical device and can kill the microorganisms on the device even if it does not contact the microorganisms directly.

The critical variables of a sterilization process are the physical aspects of the process that have the greatest impact on the effectiveness of that process. The critical variables for a steam sterilization process are temperature, exposure time, and steam quality (level of saturation). Steam quality is critical to the process and can be very difficult to measure. Poor quality steam can be caused by residual air in the sterilization chamber, air leaks in the steam supply system, or poor boiler water quality. Sterilizer or loading issues can cause wet steam or superheated steam in the chamber. These steam quality issues can reduce the level of saturation and therefore the amount of energy transferred on condensation, thus reducing the effectiveness of the sterilization process.

Typical steam sterilization processes in healthcare today operate at 132°C or 134°C and remove air from the chamber with a series of vacuum or steam pulses at the start of the cycle. Cycles that operate at 121°C and use gravity to remove the air are also used but are less common.

Vaporized hydrogen peroxide sterilization

Hydrogen peroxide sterilization is a low temperature chemical sterilization process that uses hydrogen peroxide vapor as the sterilizing agent. Hydrogen peroxide will oxidize critical molecules and kill the microorganism. Vaporized hydrogen peroxide cycles typically operate at temperatures of approximately 50°C to 55°C which are well below the temperatures used in steam sterilization processes. The critical variables for VH2O2 sterilization processes are temperature, exposure time, and concentration of hydrogen peroxide. The concentration of hydrogen peroxide is more complicated than it sounds. VH2O2 sterilization is a chemical process which means that hydrogen peroxide molecules must directly contact a microorganism to kill it. So, to sterilize a device, every microorganism on the device must be contacted directly by the hydrogen peroxide. Hydrogen peroxide is in a vapor state, which means it tends to easily condense into liquid on surfaces, like water vapor on the mirror in the bathroom after a hot shower. The condensed liquid hydrogen peroxide will not further penetrate into the devices and may reduce the amount of vaporized hydrogen peroxide available in the rest of the chamber. In addition, hydrogen peroxide itself is a somewhat unstable molecule, and will tend to break down into other chemicals. (For example, the hydrogen peroxide solution in your home medicine cabinet is in a light-proof, brown bottle and must be stored in a cool place, to protect the unstable hydrogen peroxide molecule). These properties of vaporized hydrogen peroxide make it very important to properly maintain the sterilizer and also to follow the instructions for use (IFUs) provided by both the device manufacturer and the sterilizer manufacturer.

There are many different VH2O2 cycles available in the VH2O2 sterilizers used in healthcare today. Some cycles use a gas plasma exposure to reduce the amount of residual hydrogen peroxide after the cycle is complete. Each cycle is intended for a specific set of medical devices, and careful adherence to the sterilizer manufacturer's and medical device manufacturer's cycle recommendations is critical.

Sterilization Quality Control

The sterile processing team must decide if each instrument load has been correctly processed and is safe and ready for use on patients. The challenge is that you cannot see if the devices are sterile, and there is no practical way to do microbiological testing on each device to determine if it is sterile. However, you can perform other types of tests on each sterilizer cycle to provide information on whether the expected and required conditions were achieved in that cycle. While these quality control (QC) tests cannot absolutely confirm sterility, they can provide information on the sterilizer cycle performance that can be used to decide on whether the devices in that cycle can be considered safe and ready for patient use.

The quality control programs for healthcare sterilization processes are typically based on testing the sterilizer and process with a combination of physical monitors, chemical indicators (CIs), and biological indicators (BIs). Each of these monitoring tools provides different information about the sterilization process that, when combined and evaluated by a knowledgeable individual, can provide the information needed to decide whether to release the load contents for patient use.

The physical monitors are sensors that are located in the sterilizer chamber and measure physical parameters such as temperature and pressure and provide a cycle printout. This information is useful for ensuring that the correct cycle was selected and confirming that no cycle errors occurred. The physical monitors provide basic information from distinct points in the chamber wall and are not able to provide information related to loading or information from inside the sterilizer load. Chemical indicators use reactive inks that will respond to specific process conditions with a chemical or physical change that can be interpreted by the user (e.g., a change in ink color or a moving front). Chemical indicators are placed on both the outside and inside of packages and provide information on the physical quality of the process from those locations in the load. Biological indicators are placed inside process challenge devices (PCDs) in the most challenging location in the chamber and provide the only direct measurement of the lethality (killing power) of the cycle. In the BI/PCD system the BI's spores are intended to represent the microorganisms on the medical devices. The PCD is separate and represents the challenge to the process provided by the device packaging and the load. The BI/PCD combination then provides a representative challenge to the process like the organisms on devices inside of the load, yet the BI/PCD is easy to retrieve and test without opening any packaged devices. A "pass" result for all these indicators (physical, chemical, biological) provides a sound rationale that the process was correct and effective, and the load contents are safe for patient use.

Performance and labeling requirements for biological indicators for steam are well defined in ISO standards, but currently there are no standards defining the performance requirements for biological indicators for VH2O2 processes. This means that the end user should rely on regulatory clearances by the FDA to provide confidence that the biological indicators they are using will perform appropriately in the labeled cycles. The FDA makes the determination regarding suitability of BIs for specific VH2O2 cycles through the regulatory clearance.

Recommended Practices

AAMI standards provide recommended quality control monitoring practices for load release for steam and VH2O2 cycles.[4,5] The recommendations are summarized in Table 1.

The monitoring recommendations for load release for steam and VH2O2 are quite similar. It should be noted that BI/PCDs are optional for testing of non-implant loads in steam while BI/PCD testing is preferred for every cycle in VH2O2. Many healthcare facilities monitor every cycle in both processes with a BI in a PCD to provide the highest level of quality control and a uniform standard of care for all patients.

Table 1 – AAMI Monitoring Recommendations for Routine Release of Loads

	STEAM	VH2O2
Physical monitoring	Every cycle	Every cycle
Chemical indicators - external	Every package	Every package
Chemical indicators - internal	Every package	Every package
Biological indicators inside a PCD	Optional[a] Every cycle[b]	Daily, preferably every cycle[a] Every cycle[b]

a. Non-implant loads b. Loads containing an implant

Summary

By preventing cross contamination between patients, sterilization processes used in healthcare facilities are an essential part of an infection prevention program. Steam and vaporized hydrogen peroxide processes are both effective when used properly. Quality control testing using physical monitors, chemical indicators, and biological indicators inside of PCDs provides information

Self-Study Test Answers: 1. C, 2. B, 3. B, 4. D, 5. A, 6. C, 7. A, 8. C, 9. D, 10. D

on the quality of each process and will facilitate the decision on whether instruments can be released for patient use. HPN

References:

1. ISO 11139:2018. Sterilization of health care products m Vocabulary of terms used in sterilization and related equipment and process standards.

2. Guidance on Premarket Notification [510(k)] Submissions for Sterilizers Intended for Use in Health Care Facilities. 1993. United States Food and Drug Administration.

3. Guideline for Disinfection and Sterilization in Healthcare Facilities, 2008. (Update May 2019). Centers for Disease Control.

4. ANSI/AAMI ST79, Comprehensive guide to steam sterilization and sterility assurance in health care facilities. Association for the Advancement of Medical Instrumentation. 2017.

5. ANSI/AAMI ST58, Chemical sterilization and high-level disinfection in health care facilities. Association for the Advancement of Medical Instrumentation. 2013 (R2018).

Craig Wallace, President of Wallace Sterilization Consulting, LLC, has over 26 years of experience in the field of medical device disinfection and sterilization.

CONTINUING EDUCATION TEST • DECEMBER 2023

Sterilization Choices for the SPD

Circle the one correct answer:

1. **Steam sterilization is what type of sterilization process?**
   - A. Chemical
   - B. Low temperature
   - C. Physical
   - D. Organic

2. **Vaporized hydrogen peroxide is what type of sterilization process?**
   - A. High temperature
   - B. Low temperature
   - C. Physical
   - D. None of the above

3. **The term sterile means __**
   - A. clean.
   - B. free from viable microorganisms.
   - C. safe.
   - D. inexpensive.

4. **Sterilization quality control program will use information provided by __**
   - A. biological indicators.
   - B. chemical indicators.
   - C. physical monitors.
   - D. All of the above

5. **Physical monitors __**
   - A. provide information on temperature and pressure inside the chamber during the cycle.
   - B. can determine if the load is sterile or not.
   - C. contain viable microorganisms.
   - D. can be placed on the outside of packages.

6. **Chemical indicators __**
   - A. contain viable microorganisms.
   - B. are built into the chamber wall.
   - C. respond to the process with a chemical or physical change that can be interpreted by the user.
   - D. None of the above

7. **Biological indicators __**
   - A. contain viable microorganisms.
   - B. can be placed on the outside of packages.
   - C. do not require incubation.
   - D. None of the above

8. **A process challenge device is intended to __**
   - A. create confusion in the sterile processing department.
   - B. be used with the physical monitors.
   - C. represent the challenge to the process provided by the device packaging and the load.
   - D. be used in an empty chamber

9. **For steam loads containing implants, AAMI ST79 recommends __**
   - A. monitoring every load with physical monitors.
   - B. placing a chemical indicator inside of each package.
   - C. monitoring every load with a PCD containing a BI and a Type 5 chemical indicator.
   - D. All of the above

10. **Vaporized hydrogen peroxide loads that do not contain implants, AAMI ST58 recommends __**
    - A. monitoring every load with physical monitors.
    - B. placing a chemical indicator inside of each package.
    - C. monitoring one cycle per day, but preferably every cycle, with a PCD containing a BI.
    - D. All of the above

CONTINUING EDUCATION TEST SCORING

HEALTHCARE PURCHASING NEWS EDUCATION HUB

HPN now offers all CEU quizzes online by scanning the QR code on the right or visiting: https://educationhub.hpnonline.com. **The cost to take the quiz online remains at $10.**

As of December 1st all exams must be taken online.

Mailed in tests will no longer be accepted.

HSPA HEALTHCARE STERILE PROCESSING ASSOCIATION

CBSPD

We have been asked by HSPA to discontinue publishing the approval code for these exams. *The code will be printed on the successfully completed certifcate at the end of the online course at https://educationhub.hpnonline.com.*

SPD Ergonomics Planning Worth the Effort & Investment

by David Taylor

Due to the nature of the work performed in sterile processing departments (SPDs), SP technicians are often required to perform physically demanding tasks for prolonged periods of time. As a result, there is a high probability they will develop a work-related musculoskeletal disorder (MSDs) or other injury. Such injuries can be attributed to a lack of attention to ergonomics in the work environment, equipment layout, employee movements, and other factors.

The importance of appropriate ergonomics in the workplace has never been more important and plays a vital role in employee satisfaction, retention, recruitment and productivity. Unfortunately, this issue has repeatedly been overlooked and undervalued by many healthcare organization leaders, (administrators, departmental managers and supervisors) and it is costing organizations and their employees dearly. Workplace injuries cost businesses billions of dollars annually. In 2021, the National Safety Council estimated $167 billion was paid nationally for work-related deaths and injuries and contribute to many lost workdays. A work environment that manages ergonomic issues proactively can reduce and, in some cases, prevent injury, while also reducing costs for the organization.

Many SPDs across the country are outdated and lack the appropriate equipment to accommodate the work SP technicians perform. This includes working in cramped, inefficient spaces that often are not set up to allow for safe, efficient workflow and ergonomic practices. These conditions not only jeopardize employee safety and satisfaction but can also affect patient safety. Safety risks posed by unsafe working conditions can include musculoskeletal injuries and strains such as back, shoulder and neck pain [chronic lower back pain, tension neck syndrome, trapezius myalgia (neck and shoulder pain), rotator cuff impingement]; falls from slippery floors, especially in decontamination; eye strain; and the development of carpal tunnel syndrome, among other injuries.

Injuries can result from prolonged static posture and poor positioning, repetitive movements and heavy lifting, suboptimal lighting, mental stress, physical condition and age, and genetic predisposition. Symptoms of MSDs can present as decreased range of motion, deformity, diminished grip strength and muscular function. Fortunately, risk factors for developing MSDs are preventable if the right steps are taken.

Ways to prevent employee injuries

To avoid employee injuries and demonstrate a commitment to the health of staff members, it is essential that SP leaders implement ergonomic principles into their workspaces. Practical strategies can include budgeting for height-adjustable equipment, such as sinks, tables and computer stations, to reduce the need for excessive bending, reaching or stretching. Height-adjustable workstations allow employees of stature to position themselves at a comfortable height or angle to prevent excess physical strain.

Other strategies include incorporating sit-to-stand stools that encourage employees to alternate between sitting and standing positions (as appropriate, depending on the task). Equally important and effective is ensuring employees receive proper training that encourages correct posture, lifting and body mechanics. Further, SP leaders should evaluate lighting to ensure it is adequate in all areas of the department (in my consulting experience, I see lighting overlooked frequently). Adequate lighting intensity directly correlates with a more productive, safe work environment. Lighting needs will vary according to the various light sources already installed in the ceiling, and some workspaces may require more or less lighting to ensure each task is performed optimally. Good task lighting should always be prioritized for each work area to ensure proper inspection and production. SP leaders must also be aware that older employees may require additional accommodations to prevent workplace injuries, strain and discomfort, although every employee should be protected and prioritized when establishing an ergonomics plan.

Budgeting basics

Good ergonomics is good for business, and SP leaders (and any other healthcare department leader) must manage employee health and safety proactively and effectively. Because there are obvious costs associated with this undertaking, leaders should consider the full financial picture when asking for support to improve ergonomics within their departments.

SP leaders and their organizations must find an acceptable balance between setting realistic budgets and ensuring enough capital is allocated to promote employee safety and mitigate preventable injuries. One solution is to make a onen, threen and five-year capital budget plan. This effort takes time but pays big dividends when considering not only current and future organizational and departmental strategic plans but also the day-to-day employee and departmental needs.

Conclusion

Poorly designed and insufficiently equipped workspaces in the SPD can be extraordinarily challenging in todayrs fast-paced healthcare environment. Ergonomic work areas, when budgeted, designed and implemented thoughtfully, can significantly reduce work-related injuries caused by repetition, strain and overexertion during routine tasks.

By making ergonomics a priority, SP leaders and facility executives will demonstrate a strong commitment to employee safety, while increasing staff satisfaction, comfort, productivity and qualitymall of which benefits the customers and patients served. HPN

High-Level Disinfection vs. Sterilization: Education is Key

Healthcare Purchasing News received an update on the current landscape surrounding HLD vs. sterilization from industry experts

According to the article "Disinfection and Sterilization in Health Care Facilities: An Overview and Current Issues" by William A. Rutala, Ph.D., M.P.H. and David J. Weber, M.D., M.P.H., published in *ScienceDirect*, achieving disinfection and sterilization through the use of disinfectants and sterilization practices is imperative for making sure that medical and surgical instruments do not transmit infectious pathogens to patients.

Of course, it is not necessary, or frankly, even possible to sterilize *all* items related to patient care, hospital policies need to identify whether the items need cleaning, disinfection, or sterilization. Policies at facilities depend on the item's intended use, manufacturer's recommendations, and guidelines.

The article states that "When properly used, disinfection and sterilization can ensure the safe use of invasive and noninvasive medical devices. The method of disinfection and sterilization depends on the intended use of the medical device: critical items (contact sterile tissue) must be sterilized before use; semicritical items (contact mucous membranes or nonintact skin) must be high-level disinfected; and noncritical items (contact intact skin) should receive low-level disinfection. Cleaning should always precede high-level disinfection and sterilization. Current disinfection and sterilization guidelines must be strictly followed."

Healthcare Purchasing News (HPN) interviewed two leaders on the differences between high-level disinfection (HLD) and sterilization, specifically. With hospitals and health systems being understaffed and overloaded, how are they handling education for staff? What are the challenges and trends today?

Educating staff

When it comes to educating staff on the difference between HLD and sterilization, Chasity Seymour, BSHM, CST, CHL, CRCST, CIS, AGTS, clinical education specialist, mid-southern region, STERIS says that "Healthcare facilities offer staff a variety of methods to learn about HLD and sterilization. Using IFUs, Wallcharts, and other manufacturer educational collateral is very common. Equipment and consumable vendor in-servicing, CE education (Webinars, Live presentations, conferences, seminars), and any regulatory recommendations or requirements received from credentialing and government agencies based on changes in the industry or infectious outbreaks also drive education into this area."

Chasity Seymour

She adds, "Few facilities require certifications of staff that would assist staff in understanding the differences related to HLD and sterilization. There are some exceptions where state regulators mandate staff be certified in Sterile Processing. HSPA and CBSPD provide certifications specific to endoscope processing."

Jan Prudent, BA, CRCST, CIS, CER, CHL, CFER is sterile processing manager at Eastern Idaho Medical Center. She also currently serves as HSPA's Secretary/Treasurer. Prudent says, "First of all, everything that can be sterilized is sterilized in our facility. We require all staff to obtain their CRCST certification. Once they have their base certification, staff are encouraged to obtain the CER and CIS certifications. We have in-services and trainings at least quarterly for equipment, endoscopes, quality audits and recording of data."

Jan Prudent

Damien Berg, BA, BS, CRCST, AAMIF, HSPA's VP of strategic initiatives, says, "It is always important to educate each employee about decontamination and sterilization basics as well as orient them to microbiology basics and the science behind the processes they will perform. This can be done by dedicated sterile processing educators or managers during employee orientation, upon hire and at set intervals, and manufacturer in-service training can also be beneficial. Specific to HLD and sterilization, technicians should be taught the key differences: HLD can be expected to destroy microbial organisms but not all bacterial spores. Sterilization, on the other hand, eliminates microbes, including bacterial spores, but will not be appropriate for all items being processed (based on the intended use or clearance of the device)."

Damien Berg

100 years of infection control. We've got this.

Infection prevention across the care continuum – well-tolerated, easily accessible and high-level disinfectants, making compliance simple.

Infection Control Done Right.™

(800) 726-2308 | www.angelini-us.com

Angelini Pharma

SM004.rev00

Challenges

Seymour commented on the challenges and obstacles that occur when working with HLD and sterilization processes. She says, "Most common challenges are related to lack of education and training on both microbiocidal modalities, processes, equipment, products, and device compatibility. These areas often lack formal training and education systems on both modalities. Some may share educators with other departments who are unable to devote the time needed. Staffing shortages and turnover is a contributor to this as well. Staff may not receive training because experienced staff are not available to properly train on the processes."

"Downtime due to repairs, poor utilities, and improper maintenance are additional challenges. Often instructions for use (IFU) are not followed. IFUs create challenges due to length, significant number of steps, and conflicting instructions from the device, equipment, and consumables. Reconciliation can often lead to situations where the practice conflicts with standards. Vendor in-services and training, a facility competency-based training program, and continuing education can help in the reconciliation process."

Additionally, Seymour adds, "Manual processes continue to be a challenge. Manual cleaning and HLD is prone to misunderstanding. Every endoscope manufacturer and model has a unique IFU. Remembering all the steps and required accessories is difficult. Add to this the pressure to process endoscopes faster, which creates an opportunity to miss a step(s). Some solutions are easier to solve, increased inventory for example. Some changes look towards technology. Using validated automated processes and technologies help reduce human errors when using HLD or sterilization. Workflow software which defines and checks the steps of processing can also help reduce the educational hurdle facilities face.

And for solutions, Seymour states that "Ultimately, education and certification will remain a cornerstone for mitigating or eliminating challenges and obstacles in SPD and GI."

Berg comments, "The most common challenges or obstacles found in sterile processing departments regarding the processing of medical devices, either by HLD or sterilization, are two-fold: time and complexity.

"When looking at the process and workflow needed to process devices accurately and safely, it is essential to understand how long these steps take—not just by following the IFU but also by working with the layout of the department, the staff members assigned, and any external challenges. One solution is to map out the process steps in the department, taking into consideration the entire workflow "current state" and then seeing what can be improved and done to mitigate the obstacles and, hopefully, remove unnecessary steps. This approach can make it easier to work in the department and free up valuable needed time so the team can perform the correct steps and processes for either HLD or sterilization."

"The second issue our professionals face is the complexity of today's medical devices," Berg adds. "It is not that we cannot process these devices or lack the sterilization/disinfection technology to do what is required, but there is a greater need for training—and maintaining employee competencies. In addition to the learning curve, these devices can also require additional or new equipment to align with the processing instructions. Understanding the complexity and needs that will challenge our processes and people will help in the development of an effective strategy. An effective approach is for sterile processing leaders to participate in the healthcare organization's purchasing process; in doing so, they can be part of the review process and provide valuable input about the HLD and sterilization processes (to include departmental needs such as staffing, training and equipment)."

Jon Wood, MBA, CRCST, CST, clinical educator, HSPA, added his comments as well. He says, "There have been numerous media reports about contaminated surgical instrumentation making its way to the operating room. Whether you work in healthcare or not, this type of situation should be one of those never events. In a recent news article, there is mention of staffing shortages within the sterile processing department. As the article suggests, I feel staffing shortages are among the most common challenges sterile processing leaders face today."

"In today's sterile processing departments, technicians are processing more complex devices than ever before in history," Wood adds. "In some facilities, there may be a lack of understanding concerning the complexity of instrumentation, along with the resources required to maintain medical devices. These devices require precise cleaning steps and instructions that, when done correctly, can require significant time (some key examples are the decontamination of endoscopes and robotic instruments). Internal and external visualization and testing is essential, precise and requires a time commitment, and no steps can be rushed or skipped."

Jon Wood

He says "All too often, the demands and expectations for medical device processing and turnover puts increased pressure on sterile processing—to the point where cleaning and processing steps start to suffer (such as skipping or rushing steps to meet demands of procedural areas). After a while, the missed steps and cut corners can become the new accepted practice, which obviously poses a risk to patient safety."

Yet, Wood remains optimistic, "Hope is not lost, but it takes work and committed leaders, not only in sterile processing but within our operating rooms and other procedural areas. Surgeons and hospital leadership must also understand the complexity of the given task, collect data, streamline processes and ultimately determine the appropriate number of staff that will be able to safety and effectively process the medical devices. This is a continual process that needs to be consistently evaluated to ensure the department is meeting the demands of its customers and the needs of the patients. HPN

Read on: hpnonline.com/53077503

ADVERTISER INDEX

Designate, Develop, and Demonstrate

Competency, part 2

by Stephen M. Kovach

Q November's article asked: "We just had a staff meeting and our manager told us that 'Results from a recent survey of the department stated we need to have more competency for the staff and the work they do.' Do you know how many competencies a department should have?"

A After last month's cliffhanger, this month we will address:

1. How do you develop competency?
2. How many competencies should a department need/have?

First, it is necessary to have a policy outlining how to do an assessment of what skills are vital for performance within the department. Next, decide what method they will use to assess staff competency. This will vary from department to department.

Skills might be a) how to brush/clean medical devices, b) how to operate an ultrasonic cleaner, or c) how to read a sterilizer record. What are the vital skills needed in your department? I believe this should be a combined effort with staff and management.

Experts agree there are three primary competency assessment methods.

- *Self-assessments:* employee evaluates their own level of competency.
- *Manager assessments:* manager evaluates the employee's competency.
- *Assessment:* employees are evaluated by more than one person (i.e., managers, preceptor, peers, and subordinates).

Next, how do you write and perform the competency assessment?

Based on an article published on this topic by OR nurse and educator Alice Speers, RN, this is the formula I used when I was in a leadership position. I would advise all to read Ms. Speers' article.[1] I have adapted and modified her teachings to meet my needs.

1. Define the competencies you want to assess.
2. Observe the employee and request feedback based on the competencies you wrote.
3. Determine the employee's expected competency level (score).
4. Develop an action plan if a deficiency is determined. Did not achieve the desired score (outcome).
5. Communicate the result.
6. If there is a deficiency, then retrain and retest.

Based on your questions, the surveyor may believe your department needs more competency testing to show the staff performed properly, or perhaps they saw something incorrectly performed and that your manager could not show adequate training for that specific skill.

Second, how many competencies should a department need/have? I had 15 departmental competencies. Once completed, we started over again for all the staff. I believe each department is different, and leadership in concert with staff needs to devise what is important for their department. I do not believe in a fixed number for any department.

This process should be documented and saved to show anybody how you produced your set of competencies for your department. Also, it can change over time. Maybe you do not use Ethylene Oxide (EtO) anymore, but now use another form of low-temperature sterilization, replacing your EtO competency. Our work is ever changing, and so should our competencies (along with our knowledge).

In closing, consider the Chinese philosopher Lao Tzu, founder of Taoism, who said, "Give a man a fish and you feed him for a day. Teach him how to fish and you feed him for a lifetime." Let's revise it some. Teach a medical device reprocessing professional how to do something correctly with the why, and they will do it right for a lifetime.

If you recall "my C2" from Part I, I said certification is part of the answer. Ring in the new year with January's issue to discover the last piece—why certification should be considered when developing competency for medical device reprocessing professionals. **HPN**

References

1. Speers, Alice T., RN. (2005). Centra Processing technician Internship – A Unique Learning Opportunity. *AORN Journal.* August 2005; Volume 82, Issue 2. 231-243. https://doi.org/10.1016/S0001-2092(06)60315-3

Stephen M. Kovach, BS, CFER, started in the medical field in 1975 as a sterilization orderly and has worked in many positions within the Healthcare Industry. He presently is Clinical Educator Emeritus at Healthmark Industries.

VALUE. DELIVERED.

Leadership Lessons from the Bellwether League Foundation

by Karen Conway

This year's Bellwether League Foundation Leadership Forum focused on the expanding role of the healthcare supply chain. The event, held at Marquette University on October 2, was moderated by Carl Meyer, who was inducted into the Bellwether Hall of Fame for Supply Chain Leadership in 2019. The panel included two other Bellwethers, both inducted in 2022: Ed Hisscock, senior vice president for supply chain management at Trinity Health, and Tom Lubotsky, Vice President, Supply Chain at Allina Health in Minnesota. They were joined by two healthcare distributor executives: Sue Czajkowski, vice president, Technology, Innovation and Clinical Products, Owens and Minor, and Kyle McMullin, marketing director, Medline Industries.

While each of the panelists brought varying perspectives and experience to the panel, they were relatively aligned when asked about the evolving challenges for supply chain professionals and how their own organizations are rising to meet the demands for a more affordable and equitable healthcare system. I have summarized some of their comments below:

Health Equity

Both Lubotsky and Hisscock spoke to how the supply chain can play a greater role in addressing health disparities that disproportionately plague the poor and communities of color. For years, health system supply chain leaders have sought to increase the percentage of their spend with diverse suppliers, generally defined as those owned and operated by traditionally underrepresented groups, such as women, minorities, veterans, and persons with disabilities or identifying as LGBTQ. More recently, those efforts have shifted to direct more of that spend with local suppliers who employ individuals from disadvantaged communities. Having a satisfactory job that pays a livable wage is considered one of the most important social determinants for good health.

Lubotsky spoke about the importance of collaboration among healthcare providers, noting how a health system serving patients on the westside of Chicago created a shared laundry business that employed individuals in the community. You can read more about how supply chain's role in supporting health equity on Chicago's west side in the June 2021 and December 2022 issues of Value. Delivered., accessible on hpnonline.com.

As a distributor, McMullin spoke to how Medline is evaluating if it has not only the right mix of diverse suppliers but also products that can meet the health needs of diverse populations. In late 2020, as the world witnessed higher rates of disease and death from Covid-19 among minorities, the FDA called on healthcare manufacturers to include more diverse populations in clinical trials to understand the efficacy of products on all patient populations.

Expanding Care into the Community

The global pandemic also accelerated the trend toward more patients being cared outside of the acute care hospital and in particular in their homes. This move presents a logistical challenge, given the exponential increase in delivery points for medical products. In recent years, Owen & Minor has made investments that have expanded beyond its traditional acute care distribution business to support more direct deliveries to the patient in home care. The company is now working to create more synergies between the two to support more seamless care across the continuum. Medline is on a similar journey.

Both Allina and Trinity are also making changes to support care in the home. Trinity now delivers not only medical products to patient homes but also the technology to support remote care, including electronic tablets and Bluetooth-enabled scales and blood pressure monitors. The supply chain must also manage the reverse logistics to retrieve those devices when such care is concluded. Allina, meanwhile, has expanded the number of hubs where nurses visiting patients in their homes can pick up necessary supplies, which they say can vary based on the patients' changing conditions. This is particularly true for hospital at home programs that treat higher acuity patients than those receiving more traditional home care.

The question being studied by both Lubotsky and Hisscock is what is the best path to provide such services in the most efficient manner, either on their own or with an outsourced partner.

Leveraging Data and Technology

For all four speakers, mining data is key to answering these and other questions. McMullin noted how payor mix further complicates the issue. As an example, he described how a physician could prescribe a particular piece of durable medical equipment for a patient being treated at home but that depending on his or her insurance, the exact product and DME supplier could be dictated by the payor. Differing classes of trade n from hospital to home- can also impact the price a provider is paid and/or reimbursed for certain healthcare products, especially pharmaceuticals.

Hisscock also emphasized the importance of data to both understand and reduce the cost to serve. In other industries, he says suppliers know how expensive it is to serve different customers, which in turn can impact the price paid. In contrast, he says cost to serve is not well understood by healthcare suppliers, beyond the fact that selling, general and administrative (SG&A) costs are much higher in healthcare. The best way to tackle cost to serve, he says, is by getting better at predicting and sharing demand with suppliers. Czajkowski agreed, adding that investments in artificial intelligence and data science can help manage the growing complexity (from demand forecasting to logistics), while also automating more repetitive tasks to allow for time to work on more strategic initiatives. While Hisscock encouraged his peers to hone their supply chain expertise, he agreed with Czajkowski who called for more cross functional collaboration across supply chain, financial, and clinical and other functional leaders to manage the myriad of variables that impact our respective ability to deliver what patients need, when and where, to optimize health. HPN

BRASSELER
USA® SURGICAL

STOP OVERPAYING.

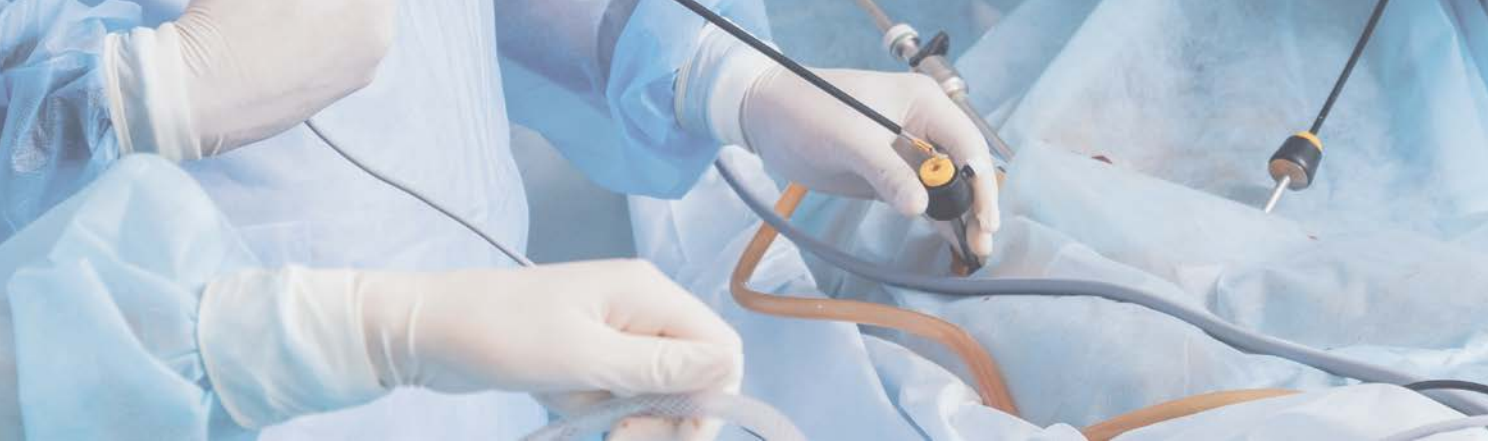
Switch to Brasseler and save ***UP TO 60%*** on your orthopedic cutting accessories spend.

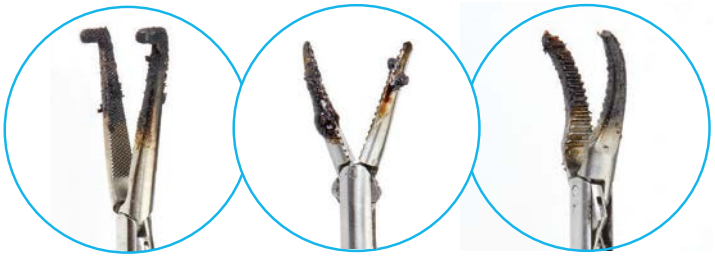
- **Dedicated Brasseler representative to support clinical cases and guide you through the conversion process**
- **Elite customer service team focused on providing assistance when you need it most**
- **Made in the USA**

*Based on analysis of publicly available retail pricing. Data on file and available upon request

Visit our website at **BrasselerSurgical.com**
To order call **800.535.6638**

BM-5709-01.23-HPN





TWO WORDS, ONE BOTTLE.

SOLVE THE PROBLEM OF ESCHAR BUILDUP

VIDEO

Electro Lube® anti-stick solution is clinically demonstrated to keep tissue from sticking to electrosurgical instrumentation during use, leading to less time spent on handbacks to remove eschar during the procedure. Electro Lube is non-toxic, packaged sterile, and ready to use. To learn more and obtain free product samples for your facility, visit www.keysurgical.com.

STERIS