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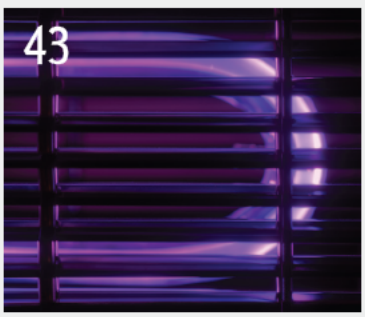

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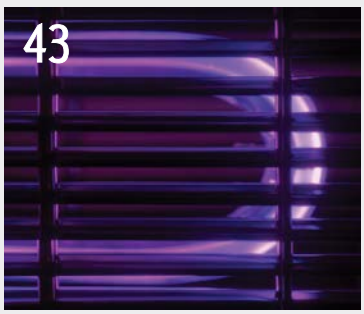

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C-Suite Magnificent 7

Rick Dana Barlow
Senior Editor

by Rick Dana Barlow

During the last decade, healthcare provider organization C-suites have expanded with a variety of "new" titles that run parallel to several of the leading college football conferences that decline to change the numeral in their names to reflect the bloat. Case in point: The Big 10 likely will consist of 18 teams next season once the smoke clears.

Search the interwebs … or let AI do it for you and just take the credit (not the case here, rest assured) … and you'll see the variety of nebulously nuanced functions occupying valuable real estate – like the crème filling in a popular sandwich cookie – between the "C" of Chief and "O" of Officer.

Believe it or not, you can find more than 85 different combinations that can apply to the C-suite of any healthcare provider organization – particularly those that crave publicity for creativity.

Can you imagine how top-heavy an organization would be – unless they employed enough people underneath to keep the organization busily afloat and humming – if it succumbed to the executive bloat? Of course, the post-pandemic labor shortages and staffing challenges likely would stuff a cork in that bottle anyway.

Granted, a number of options could be regarded as synonyms, as they may share the same middle letter in the C-to-O equation and overlap in selected functionality. But are all those options really needed, particularly as healthcare provider organizations continue the quixotic quest of controlling, managing and reducing expenses?

What if you could redesign and simplify the C-suite composition to reflect more of a bread-and-butter, meat-and-potatoes approach, eschewing the appetizers, hors d'oeuvres, desserts and petit fours of titles that have been added to the mix? What titles may comprise such an executive leadership team?

For starters, the C-suite can be organized around three major form factors driving the success of healthcare organizations everywhere: Customer service, healing/organic restoration and safety/security. Notice that generating income is not specified – whether nonprofit, not-for-profit or investor-owned. Why? A breakdown in any of the three major factors essentially hampers income – particularly reimbursement designated as income on the balance sheet.

To carry out the three major form factors, an organization should need no more than a team of seven. They are:

1. CEO for Chief Executive Officer (oversees administration, HR, marketing/PR, engagement/experience, fundraising, etc.)
2. CFO for Chief Financial Officer (oversees finance, accounting, billing, budgeting and insurance, revenues and expenses, etc.)
3. CCO for Chief Clinical Officer (oversees all staffed and privileged clinicians, including doctors, surgeons, nurses and those in laboratory and imaging, etc.)
4. CLO for Chief Legal Officer (oversees all legal matters, including compliance, governance, intellectual property, malpractice and diversity, equity and inclusion, etc.)
5. CTO for Chief Technology Officer (oversees all technology operational issues, including IT, informatics, biomedical, cybersecurity, etc.)
6. CQSO for Chief Quality and Safety Officer (oversees all quality and safety matters, such as clinical and environmental sterility, which encompasses environmental/facility services, infection prevention and sterile processing; energy management (electricity, gas and water), recycling and sustainability, etc.)
7. CPO for Chief Procurement Officer (oversees sourcing, contracting, distribution, inventory, logistics, mailroom/print shop, resource utilization, value management, etc.)

What's notably missing? COO for Chief Operating Officer. While the responsibilities for Nos. 5-7 may generally fall under the COO, and selectively the CIO, a healthcare provider organization may want to promote technology, quality, safety and procurement as standalone assets and attributes to reassure the community that it embraces their inherent value for population health.

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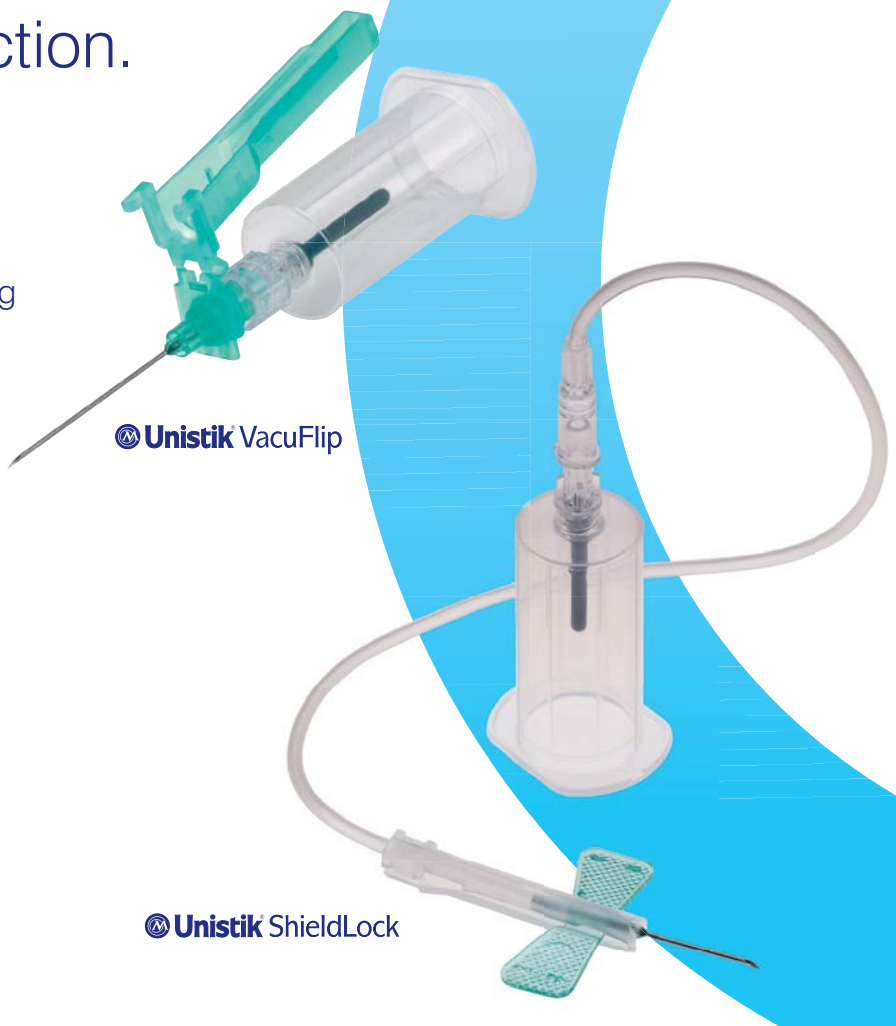

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The University of Kansas Health System CSO team

Midwestern IDN supply chain team creates, regenerates value for clinicians, patients

Success rooted in resource life cycle via communication, facilitation, sourcing, usage

For many healthcare organizations and professionals, value analysis merely represents a form or function, a procedure or process. But that's not enough for one Midwest integrated delivery network treating patients in the heartland.For The University of Kansas Health System, value analysis represents a key component of a much-larger over-arching philosophy and way of thinking that they purposefully root within well-defined clinical integration to drive cost-effective operations.

Thirteen professionals comprise the "Clinical Supply Optimization" (CSO) team at the Kansas City, KS-based IDN that services the entire organization. The team spans seven in CSO's Value Analysis group—four Value Analysis Analysts, two Implementation Analysts and one System Manager of Value Analysis; and four in the Utilization Management group—two Utilization Management Analysts, one Procedural Supply Optimization Analyst and one System Manager of Utilization Management. The two groups report to the System Director of Clinical Supply Optimization and the System Senior Director of Supply Chain Management and Administration and up to the Vice President of Supply Chain.

University of Kansas' CSO team may be small, but they're effective and efficient in the value they bring to the organization in bridging—if not filling—any gaps between administrative, clinical and financial operations, which earned them the 2023 Value Analysis Performance Excellence in Supply Chain Award by *Healthcare Purchasing News*.

What follows is an edited version of their nomination profile that traces the development of the CSO team just prior to and during the pandemic to now.

Teamwork's inherent value

If you give a Value Analysis team the right people, processes, and systems they might just create extraordinary value for their organization. If you give a Value Analysis team hundreds of clinical end users to work alongside, they just might create something extraordinary for patient care.

What if you gave a Value Analysis team both? That is what happened when The University of Kansas Health System ventured down a new pathway to transform their Value Analysis team in 2020. The journey started with asking three main questions:

1. How can the health system achieve a successful clinically integrated supply chain?

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2. How can Supply Chain Value Analysis bring the most value to the organization?
3. Are the right people at the table?

The University of Kansas Health System takes pride in placing its patients and its people as its top priority. With people and patients at the top of the list, they saw a need to fully understand what it meant to have a health system that generates and maintains true clinical alignment with the supply chain. The next three years highlight how these focus areas were foundational in growing the Value Analysis department into what is now called Clinical Supply Optimization (CSO).

2020-2021 – Discovery during a pandemic

Faced with the greatest of needs in the throes of a global pandemic that the world had not faced since the early 1900s, there was much to do, and it all had to be done with urgency. The University of Kansas Health System's Supply Chain department had already been planning to expand the Value Analysis team and knew that pausing that work would not benefit the organization. The need to be fully clinically integrated as a supply chain was greater now than ever before.

Getting the right people

Throughout the fact-finding process, they determined that a key piece to drive a successful clinically integrated supply chain was missing and that the focus had to go beyond financial outcomes by including clinical and operational perspectives. To do this, they needed to recruit executive leadership support to form an additional arm to Value Analysis called Utilization Management (UM). UM extends the scope of work beyond the projected value of a new product into the organization. This team takes supply chain initiatives and reviews their clinical, operational, and economic outcomes for 12 months. UM stays in constant communication with those end users to drive conversations to achieve the best value for patients, staff, and the organization as a whole.

As VA and UM combined formed the CSO team, the next step was to spread awareness throughout the health system and to share how the team supported its clinical end-users. This occurred through inviting key clinical stakeholders to participate in discussions and in making strategic decisions on which products are used organization wide through clinical evidence gathering, best practice sharing, market trends and insights and by leveraging the organization's group purchasing organization (GPO) contracts and committed-volume contracts (Vizient and Captis, respectively). These conversations took place as part of committee involvement.

Today, CSO leads or participates in more 40 clinical committees and facilitates a governance meeting that supports the strategic mission and vision for supply chain to provide the highest quality products to patients and staff at the best value for the organization. These committees are focused on quality and safety, patient outcomes, advanced technology to support new patient populations, and the economic and operational impacts these decisions could make. It is the collaboration between each clinician and CSO team member that creates the success of this program.

2021-2022: Execution and implementation

During the second year, CSO discovered a gap within the team—an opportunity identified to enhance the speed to value on project initiatives. Therefore, the team held a business case review and determined a need to incorporate an Implementation Team that would drive conversions from time of product and/or purchased service approval to first invoice paid. This team is instrumental in leveraging end-to-end supply chain knowledge that accounts for changes in purchasing, distribution, and inventory management and control. The team's collaboration with both clinical and ancillary departments across the health system, has accounted for achieving contract compliance and a total of $90,000 in savings on converting patient bathing wipes and moving to vendor scrubs alone.

Additionally, the CSO team began supporting two new bodies of work: Recall Management and Non-conforming Processes, also known as defective products. CSO embodies Supply Chain Quality and Safety, and these processes help staff and patients experience safe, high-quality products. UM put together processes, formalized a policy and rolled out the added support the CSO team would provide for departments across the health system. One of the most recognized non-conforming products the organization endeavored resulted in a supplier changing their manufacturing process due to the negative product feedback submitted to them, resulting in The University of Kansas Hospital receiving an FDA Certificate for Outstanding Contribution in Promoting Patient Safety with Medical Devices in January 2023. This is the power of the non-conforming process. To date, the UM team has managed more than 325 non-conforming products resulting in more than $100,000 in credits back from suppliers.

Also in 2022, The University of Kansas Health System aligned with Medline as its strategic distribution partner. Medline provides supply distribution for acute and non-acute care encompassing approximately $60.5 million in spend and also supports the organization's home medical equipment (HME) business that provides hospital-to-home healthcare. Quarterly, both the Supply Chain department and Medline conduct business reviews in which the parties collaborate to discuss opportunities that are then brought before the committees for review and approval. This has helped the health system realize a 97% price accuracy and achieve $425,000 in savings with product conversions.

When CSO reviews any product category, the team discusses opportunities with Medline to determine whether it meets the clinical, operational, and economic needs of the organization. In 2021, The University of Kansas Health System transitioned its medical device reprocessing program to Medline. To date, savings have accounted to more than $1.8 million by utilizing reprocessed products. The health system has also diverted 17,222 pounds in medical waste out of local landfills. Additionally, Medline has supported the organization in reducing production variation and contributes to product formularies. For example, during the transition to Medline non-acute the team was able to reduce the product formulary by 50%. This strategic partnership with Medline has resulted in successful outcomes due to clinical integration and the dedicated Medline support team.

With the creation of the Implementation Team, the execution of new workflows and the strategic partnership establishment with Medline, the CSO team was able to provide $9 million in savings across the health system since inception in mid-2020.

The CSO team's efforts earned them several national awards and recognitions in 2022:

- Vizient Connections Summit—"5 Rights" of Clinical Supply Management
- GHXcellence Awards—Elevating the Clinically Integrated Supply Chain Award
- Medline Sustainability and Supply Excellence Gold Award—Medline ReNewal reprocessing program

2022 – 2023: Continuous improvement

By the third year, the CSO team had a devoted, talented group in place with consistent and effective processes in working order. The next step was to grow the team for future sustainability by creating and establishing a Procedural Supply Optimization (PSO) team. PSO's main responsibility is to partner with clinicians and physicians in surgical and procedural settings to prevent waste and

optimize supply utilization that brings the best clinical, operational, and economical outcomes for the health system. The team has clinical experience to support intricate conversations with clinical end-users, yet robust supply chain knowledge to drive conversations that could lead to a product utilization change by a physician or clinician to achieve contract compliance and reduce cost per case.

CSO is proud but never satisfied and is always looking to set the bar higher through evaluating advanced technologies with clinical, financial, and strategic partners following their mission statement: To utilize evidence-based analytics to optimize clinical, operational, and economical stewardship that drive decisions across the health system. The team connects with internal and external customers to enhance processes and build upon the workflows currently in place today to ensure long-term sustainability. Finally, the CSO team applies supportive technologies and systems to improve processes and communication with its customers.

- The CSO team's efforts continue to earn them national awards and recognitions this year, too:
- The University of Kansas Health System and the University of Kansas Medical Center Safety Symposium Presentation—How Supplies Impact Patient Safety
- Vizient Connections Summit—A Robust Product Reprocessing Program, A Trifecta of Success

Together, the CSO team built a program designed to work in tandem with clinical teams and health system leadership to enhance patient safety, provide financial and operational data that help drive decisions, and incorporate clinical evidence into its workflows. Since inception, the program has helped achieve more than $23.8 million in savings, demonstrating the value of teamwork at its finest. HPN

Midwestern CSO team explains mindset, motivation for driving value

The Clinical Supply Optimization (CSO) team at The University of Kansas Health System fuses solid professional working relationships between clinicians and administrators that delivers value to the doctors, nurses and surgeons in the clinical theater as well as the administrators and supply chain professionals in the finance and operations theater. Together, these efforts at sourcing, contracting, acquisition, utilization and disposal constitute the lifecycle of support for high quality patient care within the communities they serve. Angie Bruns, senior director, Supply Chain Management and Administration shares with *Healthcare Purchasing News* Senior Editor Rick Dana Barlow the background and underpinnings of their success.

HPN: Does a clinically integrated supply chain hinge on the application/inclusion of value analysis? Why?

BRUNS: It does for The University of Kansas Health System. The Value Analysis team was the catalyst for this endeavor, taking time to listen to end users. As an industry, we recognized the challenges value analysis programs faced and began to develop a new program that could support the organization's needs. The initial focus was on building relationships between clinicians and supply chain by bringing forth clinical evidence data analyses.

The data drives the decisions. However, it is the relationships with those end users that enable the team to share it effectively, timely and with ease. Those connections are essential in establishing the team now known as "Clinical Supply Optimization," which encompasses additional bodies of work that require supply chain support.

The team's work on recall management and non-conforming products are examples of two programs that enabled the team to collaborate closely with the quality and safety teams, risk management, and educators to support the use of products.

There seems to be many definitions of the term "clinically integrated supply chain." What's yours and why does it matter?

The University of Kansas Health System defines a clinically integrated supply chain as an interdisciplinary model which utilizes evidence-based analytics to optimize clinical, operational, and economical stewardship to produce world-class patient care at a fair cost. Everything we do is for the patient. This model places focus on quality, safety, and outcomes, it also brings essential questions and topics of operational and financial components into focus.

True clinical integration relies on the entire department to achieve outcomes. There are many components within the health system's supply chain department as shown below. Clinical integration cannot occur without all the functional areas connecting, aligning, and collaborating on one goal: world-class patient care.

What motivated you to create the CSO model? And does it apply to all facilities within the University of Kansas Health System? How many facilities are serviced by this team?

The need to establish a clinically integrated supply chain was the main motivation. The Value Analysis team was the driver, but the team does not stand alone. Without support from and collaboration with all the functional areas of supply chain and clinical leaders, becoming clinically integrated would not be possible.

The CSO program is modeled throughout the health system. In January 2021, the organization acquired a new facility with one of the goals through 2024 being to integrate the CSO program into that facility. End-users have joined clinical committees in which they review product requests and discuss contract opportunities to align the facility's product utilization. Success rides on building relationships, listening to clinicians, and providing evidence-based data outcomes to support patients' needs.

What value analysis project success story are you most proud of so far and why? How replicable is it?

Most recently, the team partnered with the health system's quality and safety teams to support CAUTI [catheter-associated urinary tract infections] reduction. One piece was to change patient bathing wipes to a different product which also came with significant savings of just over $49,000. The bigger win was a decrease in patient CAUTIs. This would not have been feasible without the support of clinical end users, supply chain team partners and supplier partners.

The CSO program and its processes are meant to be replicable and scalable, leaving room for continuous process improvements.

The CSO team strives to review initiatives beyond the price by evaluating the price of the product and the price of patient outcomes.

In your opinion, what are the toughest administrative challenges for value analysis in the following four areas and how did or might you overcome each:

- **Administrative**—Executive leadership support.
  Leadership sets the strategic vision, holds the teams accountable, and removes barriers. Executive leadership also presents the value of the program with emphasis on patient and staff safety. Without this support, the CSO program would not exist.
- **Clinical**—Support from clinicians.
  Feedback from clinicians is crucial in building a successful, clinically integrated supply chain. There is no clinical integration without clinicians, therefore, involvement from clinical leaders is necessary. Clinical leaders are included in conversations on opportunities for improvement. As committees were formed, clear expectations of the work were established together to review initiatives, execute, and monitor clinical and fiscal outcomes.
- **Financial**—Having all the right data.
  Partnering with other departments enables the teams to view the full project scope. Decisions may need data on evidence, budgetary impact, physician utilization, reimbursement, or offer a strategic perspective. Clinicians are responsible for guiding these decisions and supply chain provides the evidence necessary to support the decisions.
- **Operational**—Executing a new program requires successful communication.
  The health system leveraged a one-on-one meeting structure. It also holds regular leadership meetings, small team huddles, and daily email communication to communicate the new program. Communication included CSO's purpose, goals, and how everyone in the health system can participate in this journey. There were weeks of time invested in preparing and following up on communication provided throughout the health system.

The CSO program is designed to work within any medical center regardless of size. By leveraging committee structures and daily organizational communication, team members have awareness, have a seat at the table, and participate in decision-making.

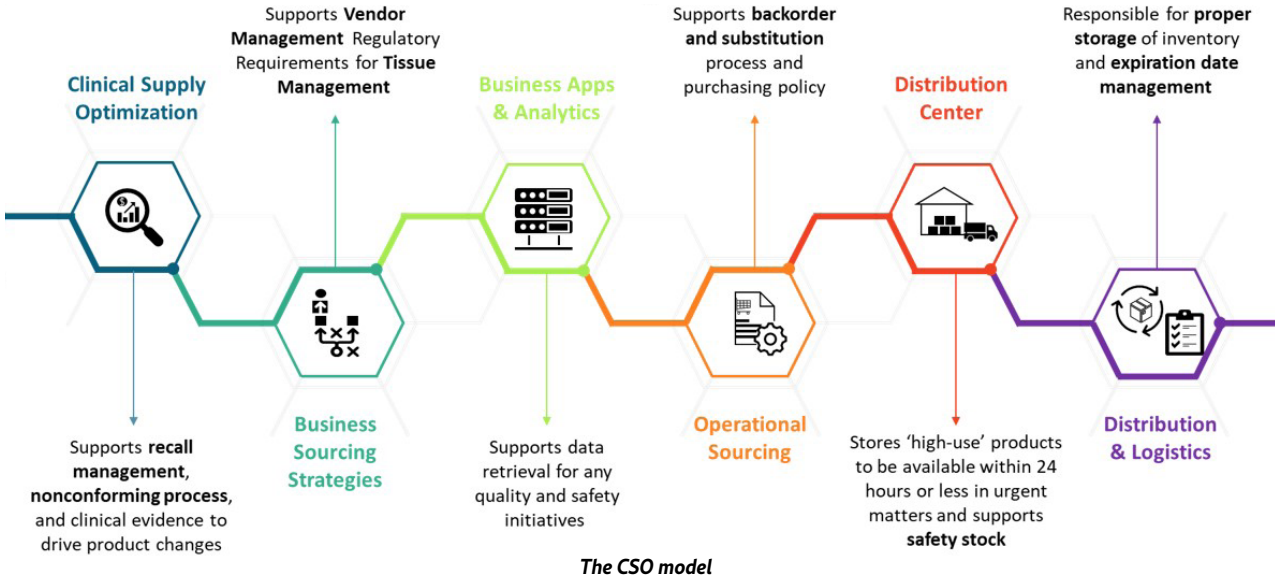
What are the top three priorities for CSO's value analysis (VA) and utilization management (UM) subgroups going into 2024 and why?

1. Program expansion. In 2023, The University of Kansas Health System acquired a new facility in the southwest Kansas City market. The Supply Chain department in actively implementing Clinical Supply Optimization into the new facility. To achieve this, there needs to be program centralization that includes voices from every facility. Moving together as one system to deliver care to every patient that comes through the door.
2. Cost-per-case opportunities. The team uses data to review, discuss and drive down cost-per-case opportunities within the surgical departments. This achieves the lowest cost of care component in a clinically integrated supply chain model.
3. Product variation reduction and contract maximization. The CSO team focuses on opportunities that will reduce variation of products across organization. This will help drive down costs and put more focus on providing the best patient care possible.

The equation VA + UM = CSO represents an interesting development that seems borne from the pandemic. Could or would you have pursued this concept or model regardless of a major crisis or did/do you need such a crisis to ignite this kind of thinking and progress? Why?

As the only Academic Medical Center in Kansas, our vision is to lead the nation in caring, healing, teaching and discovery. For Supply Chain we knew our part of this vision was a clinically integrated supply chain. Our strategic focus began in 2019. The mindset was to view it from a quality and safety and economic perspective. Culturally, the team was seen as wanting to change products to save money, though it is much more than that.

The health system became deeply affected by the pandemic in March 2020, though the clinical integration work had already begun. End-users were faced with having to utilize various products out of necessity due to global supply and raw-material shortages. If anything, the pandemic enhanced the clinical integration work across the Supply Chain department, not just Value Analysis by bringing clinicians and supply chain together to tackle supply challenges. HPN



The CSO model

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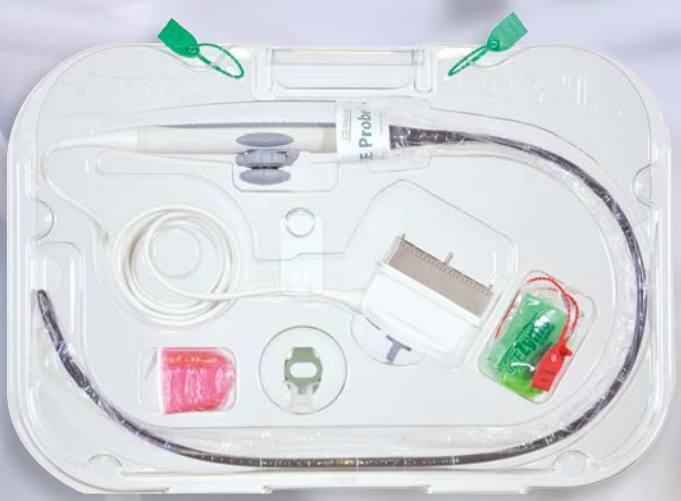

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Navigating Complexity: The Crucial Role of Change Management in Healthcare Value Analysis

It's not just a strategy; it's a necessity

by J. Hudson Garrett Jr. and Karen Niven

In the realm of healthcare, the pursuit of optimal patient care, financial stewardship, and operational efficiency is an intricate and multifaceted challenge. The introduction of new technologies, evolving regulations, and changing patient expectations only add to the complexity. Enter healthcare value analysis—a critical process that evaluates the cost and benefits of healthcare products and services. To navigate these complexities successfully, the integration of change management into healthcare value analysis is not just a strategic move; it's a necessity.

Understanding the Intersection

Change management involves guiding individuals, teams, and organizations through the process of adapting to change. It is a structured approach that addresses the human side of change—managing emotions, expectations, and behaviors to ensure successful adoption and implementation. When applied to healthcare value analysis, change management helps navigate the intricate challenges posed by introducing new products, processes, and practices into a complex and interdependent healthcare ecosystem.

Significance of Change Management

- **Mitigating Resistance to Change:** Healthcare professionals often face significant resistance when asked to adopt new technologies, procedures, or even changes in procurement practices. Incorporating change management techniques helps identify sources of resistance and develop strategies to address them, ensuring a smoother transition and greater acceptance.
- **Fostering Cultural Shifts:** Value analysis often requires shifts in organizational culture—moving from traditional practices to data-driven decision-making. Change management fosters the cultural transformation necessary for embracing a more collaborative, patient-centered, and innovative approach to healthcare.
- **Maximizing ROI:** Investing in new healthcare products or technologies can be a substantial commitment. Effective change management ensures that these investments yield the desired returns by facilitating swift and widespread adoption, reducing downtime, and optimizing resource utilization.
- **Ensuring Patient Safety and Quality:** Value analysis decisions directly impact patient care. Incorporating change management into the process ensures that changes are implemented without compromising patient safety or care quality, as healthcare professionals adapt to new protocols and procedures.

Benefits of Change Management

- **Smooth Transition:** Change management strategies guide healthcare professionals through the transition process, minimizing disruptions and maintaining operational continuity during value analysis-driven changes.
- **Stakeholder Engagement:** Engaging stakeholders early and involving them in the decision-making process increases their ownership of changes, enhancing collaboration and reducing resistance.
- **Timely Adoption:** Change management ensures that changes are adopted promptly, allowing organizations to reap the benefits of value analysis initiatives sooner.
- **Enhanced Communication:** Effective change management facilitates clear and transparent communication, providing stakeholders with the information they need to understand the rationale behind changes and their potential benefits.
- **Sustained Improvement:** Change management strategies support the ongoing sustainability of value analysis-driven changes by fostering a culture of continuous improvement and adaptability.

Strategies for Effective Integration

- **Early Engagement:** Involve stakeholders, including clinicians, administrators, and supply chain professionals, from the early stages of value analysis. This ensures that their concerns and insights are considered throughout the process.
- **Communication Plan:** Develop a comprehensive communication plan that outlines how and when information about changes will be shared with stakeholders. Consistent and transparent communication helps manage expectations and build trust.
- **Training and Education:** Provide thorough training to healthcare professionals to equip them with the skills needed to adopt and utilize new technologies or processes effectively.
- **Leadership Support:** Leadership plays a crucial role in driving change. Leaders should demonstrate their commitment to value analysis initiatives by actively endorsing and participating in the change process.

Incorporating change management into healthcare value analysis is not just a strategy—it's a necessity in a world of evolving healthcare dynamics. The intricate web of relationships, regulations, and patient care demands a structured approach to navigate changes successfully. By leveraging change management principles, healthcare organizations can minimize resistance, foster cultural transformation, and maximize the impact of value analysis initiatives. The fusion of these two disciplines isn't just about driving change; it's about optimizing patient care, achieving operational efficiency, and positioning healthcare organizations to thrive in an ever-evolving landscape. As we move forward, it's imperative that healthcare value analysis professionals recognize the value of this integration and embark on a journey that balances innovation with the human element of change. HPN

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A look at the current pediatric workforce

Current challenges could lead to a troubling future

by Janette Wider

As hospitals continue to feel pressure from staffing shortages and tight budgets, one must not forget that the pediatric workforce is facing similar challenges, albeit with slight differences. *Healthcare Purchasing News* had the pleasure of speaking with Danielle A. Altares Sarik, PhD, APRN, CPNP-PC. Altares Sarik is a pediatric nurse scientist and director of Nursing Research and Evidence-Based Practice at Miami-based Nickalus Children's Hospital. Altares Sarik has expertise in health services and outcomes research. She holds a PhD, MSN, and BSN from the University of Pennsylvania, and a BA from Cornell University. She is a Certified Pediatric Nurse Practitioner in Primary Care and has cared for patients in China, Botswana, and Nicaragua in addition to the U.S.

Danielle A. Altares Sarik

Altares Sarik is also an active member of the National Association of Pediatric Nurse Practitioners, where she serves on the Health Policy Committee. She is a Senior Fellow of the Center for Health Outcomes and Policy Research at the University of Pennsylvania School of Nursing and has held multiple visiting scholar and adjunct faculty positions. Her research focuses on the evaluation of healthcare, with a particular emphasis on factors impacting pediatric safety and health outcomes, healthcare delivery, and the nursing workforce. She has served as Primary Investigator or Co-Investigator on multiple studies, including those funded by the Agency for Healthcare Quality (AHRQ), American Nurses Credentialing Center (ANCC), and Health Resources and Services Administration (HRSA).

What does the pediatric workforce look like today?

As to the current status of the pediatric workforce Altares Sarik said, "In the pediatric world, generally, we have nurses that choose to go into pediatrics, and they tend to stay. We don't have a lot of nurses that bounce between pediatrics and adult care. It's kind of like a calling. But what we've seen recently is that we've had a lot of attrition from our pediatric nursing workforce. And actually, with the pandemic, what we saw was a lot of hospitals stopped allowing nurses to do their training rotations because of concerns with infection risk and COVID. And so, a lot of those nursing students who would normally be exposed to pediatrics during this their schooling didn't get those opportunities. So, what we are seeing as a consequence of that is we have less people choosing to opt into a career in pediatric nursing, because they've never had that exposure."

She continued, "We're just seeing less nurses who are choosing as an initial career path to go into pediatrics. And then we're seeing huge amounts of nurses who are retiring, which is the same as the adult workforce, but because it's a smaller number of nurses who have chosen this career path. Also, we see a lot of our experienced nurses leave. Then what we see is challenges with training the nurses who do want to come in. We're also seeing less of our medicine colleagues choosing to go into these pediatric specialties."

Altares Sarik stressed the training piece of the equation. She said, "For both medicine and nursing, we have training programs and academic programs, and across the board, I'll speak to nursing just because I know that world much better, but what we're seeing is we have faculty shortages. In the schools of nursing, it is we're seeing a lot of our older, more experienced faculty retire, and we actually don't have enough faculty to replace them. And what that means is not only are we seeing challenges with nurses after they graduate from school, opting to go into pediatric careers, what we're actually seeing is we're going to lose capacity to train nurses at the undergraduate level or the graduate level, because we just don't have enough faculty and staff in these academic settings. And so that's a really big challenge."

Some of the reasons, according to Altares Sarik, for this are pay discrepancy, the faculty in schools of nursing tends to be very low and it is hard to therefore attract instructors. Then, the training process is very long. To get a PhD, which is needed to be faculty, one has to go through four or five years of a PhD program. Sometimes a postdoc is required, which is an additional one or two years.

Impact on the future

Altares Sarik painted a troubling picture of the future. When asked about the potential impacts, she said, "If you think about your nursing workforce or your pediatric medical workforce you need to be able to replace those people who are either retiring or leaving the profession at the same rate that so that we can reach that balance point. But if we're not able to recruit enough pediatric nurses in or we're not able to fill our medical specialties, what that means is for future care, we may be in a situation where we don't have an adequate workforce to provide the care needed to pediatric patients. What that can look like is, if you're looking for a specialist, increased wait times, maybe longer distances that families and patients have to travel to be able to find specialists."

She continued, "And then if you need to be hospitalized and you're looking for that kind of unique pediatric care if we don't have enough pediatric nurses to provide that care, that can look like shortages, where you have really high staffing, you know, really high ratios of patients to nurses where we like to keep those ratios low so that we can have really great hands-on care. And that can provide a lot, or that can lead to a lot, of challenges with just actually being able to provide the care in hospital. Additionally, when you think about community care and primary care what that can look like is longer wait times to get in to see a provider. It can look like maybe not having pediatric providers in some areas or rural areas or underserved areas. And that can be really challenging, especially if you're not located in a city. That can be a huge barrier to receiving the needed care."

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The role of a pediatric nurse scientist

Perhaps an overlooked career path is the pediatric nurse scientist. Altares Sarik said, "Basically a nurse scientist is a nurse with advanced training and advanced education, usually a PhD, but sometimes they could also be a DNP, which is a Doctorate of Nursing Practice degree. The nurse scientist has a clinical background, they've been trained clinically as a nurse, they've likely practiced in the hospital setting or like myself, I was in the pediatric outpatient setting, and then they have the additional training and education that allows them to have a research kind of background and be able to address issues from that research perspective."

She added, "So, what makes that really unique is for a clinical pediatric nurse scientists like myself, I have the training that I could be a faculty in a school of nursing, but instead I'm embedded in the clinical setting. And so I get to teach the nurses I get to provide support for scholarship in the academic or in the clinical setting so that things like doing evidence-based practice work, quality improvement, work, research, and then I help to provide at the system level support, like infrastructure, to be able to address some of the problems we see on a day-to-day basis. We know that nurses are the ones at the bedside, they spend the majority of time with patients and families. So, they often see where we have gaps in care, or they see where we have opportunities to improve our care. The role of a clinical pediatric nurse scientist is often to partner with them to help them take those issues that they're seeing or those challenges that they're seeing and help them to address it from kind of a scientific or an academic perspective. And so, what that means is that instead of having to wait until maybe research is done in the academic setting, where it could take many years for a researcher to get some data and be able to analyze it and write it up and make changes, we can make changes in real time."

Easing the burdens

Sarik commented, "If I have a nurse that comes to me and tells me we've noticed that we are having a really high incidence of, say, pressure, injuries in this unit and we're thinking it's because of X,Y, or Z issue, I can then partner with them to put together a protocol so we can study it and we can then quickly implement a change in practice. Then, we can evaluate the outcomes of that change in practice. And so, in a very short period of time, we can improve the care we're providing to patients and improve the outcomes that we're seeing. It's an area where you can kind of take that unique training and those unique skill sets of a nurse, partnered with research training so we can really address issues in a very, very efficient way that otherwise we wouldn't be able to."

Altares Sarik noted some projects that she's been involved in recently that are helping nurses with an ever-increasing workload. She said, "One is looking at using virtual reality (VR) for needle procedures in the EEG. Sometimes the collaboration that happens between the nurse scientist and the nurses, or the team, leads to bringing in new devices or new products, or trialing new products. If they are thinking about a new device, like a new mesh we started using—a new protective barrier for nasal cannulas to help with decreasing pressure injuries—a nurse scientist is partnering with those teams to help bring in those potential innovations and help support them, implementing the use of them and then evaluating whether or not they're a good solution for the unit at the hospital." HPN

One CEO shares her perspectives on female physician needs

Julia Jacobson, CEO of BLOXR Solutions, recently spoke with *Healthcare Purchasing News* about her company and the unique needs of female physicians.

by Janette Wider

Can you give us some background on your company?

BLOXR Solutions manufactures x-ray attenuation aprons and hand cream to protect clinicians from scatter radiation exposure. We have a patented core material in our aprons that is non-toxic, about half the weight of true lead, and flexible so it is much more comfortable for clinicians than the historically popular heavy lead (toxic) aprons. We are women-owned and have a genuine interest in protecting female clinicians. This is demonstrated in our unique designs for women—extra shielding for pregnant women, cap sleeves for breast protection, bra inserts to add protection in that sensitive area, etc.

Julia Jacobson

What trends have you seen regarding female physicians in the workforce?

From attending the same industry tradeshows and conferences for 10 years, we can see there are more and more women becoming surgeons. We hope their needs are taken more seriously as they are no longer the minority in each field and are moving into positions of leadership (the decision makers). Unfortunately, we are continually told that female employees are not provided with adequate radiation protection. Many choose to buy radiation protection gear on their own if the hospital does not provide them with gear that fits.

Can you give us some insight as to why female physicians may need different products than male physicians?

In the world of radiation protection, female clinicians need different products for several reasons. Many female clinicians are given aprons that do not fit or are sized up to fit multiple people (they share gear), leaving sensitive areas exposed. This is especially common for breast tissue if the apron has a gaping armhole because it is too large. In December 2023, an article from the *British Medical Journal* states, "They point to observational evidence suggesting an increase in breast cancer risk among female U.S. orthopaedic surgeons compared with an age matched female population." And a small Finnish study, noted in a *Safety + Health*, shows breast cancer at 1.7 times the expected rate in radiologists, surgeons, and cardiologists compared with female physicians not working with radiation.

According to an article from *Diagnostic and Interventional Cardiology*, female physicians also may be pregnant while working in a job that exposes them to radiation. It is commonly known that "a developing child is particularly vulnerable to radiation's dose-dependent effects, which can include death or congenital abnormalities that appear at birth or later in life."

Why aren't employers more aware of occupational risks?

I believe hospitals are aware of the risk of radiation exposure for their clinicians. Many cite budgetary restraints as the reason why they cannot buy their female clinicians radiation protection that fits and fully protects them. There is no way to conclusively prove that someone got cancer as a result of their radiation exposure on the job—no one knows how one's cancer came to be present. Your thyroid is highly susceptible to radiation—I have met maybe a dozen people now (from industry events) who have had their thyroid removed due to cancer. All were physicians who were exposed to radiation as part of their job and most said they "know they got it from work." How many people do you know who have had their thyroid removed due to cancer? It seems a little too common among clinicians who work with radiation to say there is no correlation.

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Reference: 1. Data on file, Allergan Aesthetics, August 2022; Allergan Corporate Healthcare PRM Value Deck.

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Giving a Hand to Best Hygiene Practices

Protocol awareness and product access remain key factors for accountability

by Brenda Silva

As an essential part of any infection prevention (IP) program in hospitals or healthcare facilities, hygiene protocols and practices are integral to patient and healthcare worker safety. On the most basic level, hygiene practices that begin with the hands are one of the easiest ways to ensure established protocols are met and required compliance is achieved. The positive impact of hand-hygiene practices cannot be emphasized enough, as healthcare industry statistics continue to evidence the important role hand hygiene plays in preventing hospital-acquired infections (HAIs). As such, it's important to remember that the best hygiene practices also include the best products, education, and access, all of which contribute to accountability for staff and facilities alike.

Megan DiGiorgio

When it comes to ensuring established hygiene protocols are met, healthcare professionals tend to agree that the best first step is education of both protocols and products. According to senior clinical manager at GOJO, Megan DiGiorgio, MSN, RN, CIC, FAPIC, the best hygiene practices require more than a single-tiered approach.

"Building hand-hygiene compliance takes a multimodal approach. The World Health Organization (WHO) details elements of the approach, including system change (ensuring alcohol-based hand rub and soap and water are readily accessible), training and education, observation and feedback, reminders, and building a safety culture."

She continued, "Choosing quality hand-hygiene products that can support high levels of compliance in healthcare facilities and making these products accessible and visible to healthcare workers is likely the most critical element of a hand-hygiene program."

Jaimee Rosenthal

Jaimee Rosenthal, director of U.S. Healthcare Markets at GOJO, added, "An important part of any hospital infection prevention program is healthcare worker hand hygiene. As facilities on-board new staff and get back to basics with everyone, refocusing on the importance of good hand hygiene (covering when to use, how much, and technique) is an easy way to kick-start your safety and quality focus."

Robert Lee

In agreement is Robert Lee, founder/CEO/senior biologist at MD-Medical Data, Quality & Safety Advisors, who pointed out, "In order to ensure that you not only meet but exceed established hygiene protocols, you have to first understand what those protocols and practices are. Not all hospitals or healthcare facilities are created equal with respect to protocols and practices. Most nursing and medical schools also teach very little hygiene compliance. Both the CDC and WHO put out minimal compliance guidelines as 'best practice.' We have to be better than that and be 'evidenced based.'"

Hygiene-healthy environments

Looking to hygiene practices in healthcare environments, Linda Lee, MBA, CIC, chief medical affairs & science officer at UV Angel, said, "Good hygiene is not just cleaning the room, it's not just what we've typically thought about in environmental services, but it's multimodal. It involves many things, and the air is often overlooked as a pathway of transmission. We should treat the air with the same diligence that we treat surfaces. By focusing on the air and how it interacts with these environments, and how can we provide a safer environment by treating the air."

Linda Lee

According to Lee, the air within a healthcare environment is often overlooked, which can lead to accountability issues and airborne transmission of disease if not properly addressed.

"I believe that one of the things that healthcare workers can ask in particular is 'what are we doing for the air?' Many infection preventionists, which I am, often focus on hands and whether we've wiped down surfaces, but we have lots of evidence that airborne transmission occurs. Yet, many healthcare workers don't necessarily know what is being done for the air in the patient room, in their break rooms, in the areas where they congregate. Where staff often

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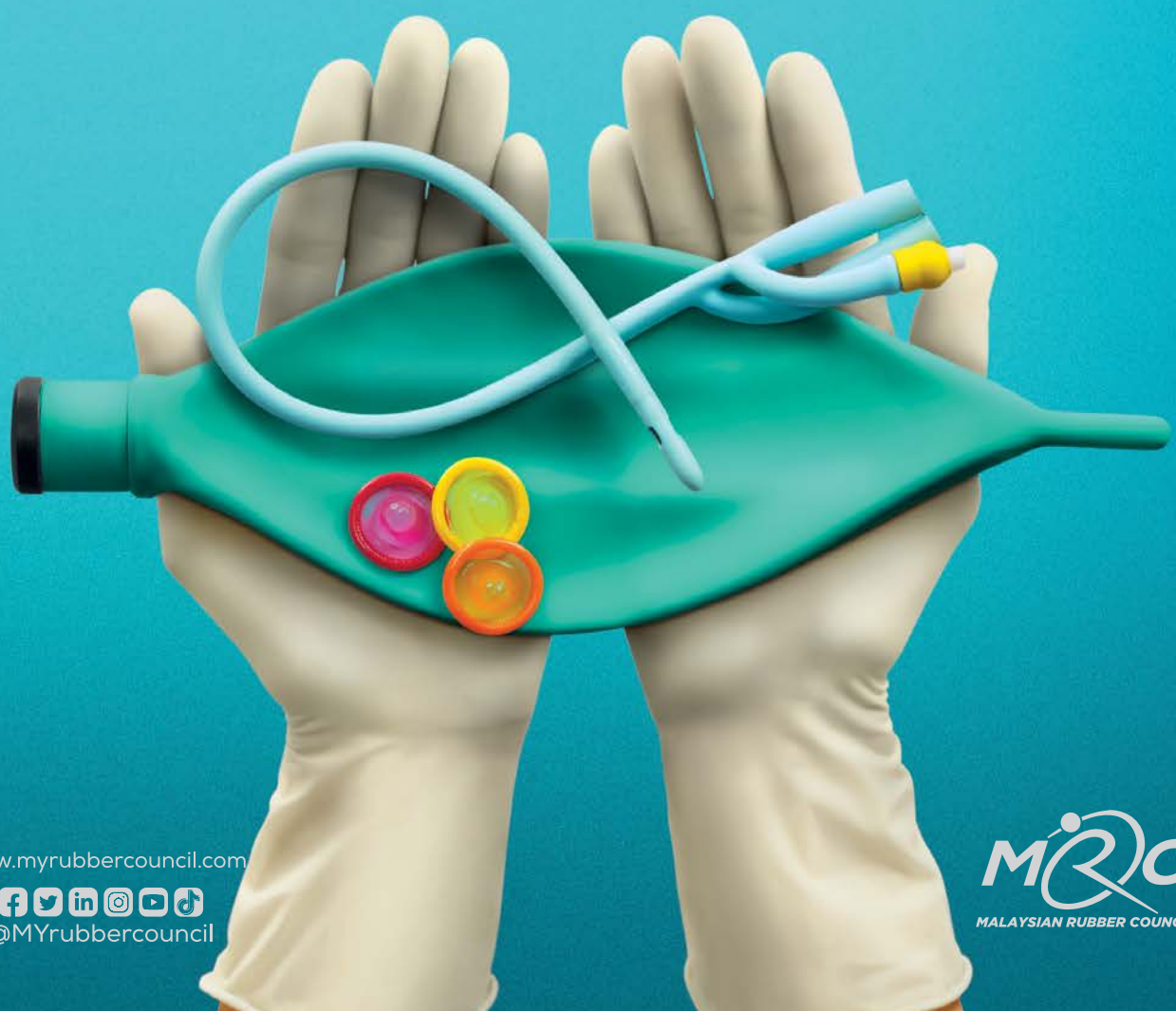

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meet and interact, where they are dealing with people who are sick, where they're dealing with coworkers who may come to work with a cold, so asking those questions about 'what is the facility doing to maintain accountability associated with the air?'"

She continued, "We're constantly looking at new ways of cleaning surfaces or new ways to do hand hygiene or being sure that we have enough of these products to provide a safe environment. But if I ask most people in the hospital what they do for air quality they couldn't tell me. They might say 'we're compliant with the regulation' or 'we provide good air because the facility said so,' but do they really know what is going on with the air? How the air interacts with these other modalities of protecting patients and protecting coworkers within the patient care environment and, quite frankly, holding everyone accountable for the safest possible environment."

Monitoring Contamination as Best Hygiene Practice

According to Douglas Mackay, VP of Sales and Marketing at Ruhof, one of the best hygiene practices is monitoring contamination in targeted areas of a hospital or healthcare facility in order to prevent hospital-acquired infections (HAIs).

"The utilization of an ATP Contamination Monitoring System is a highly effective method for continuously monitoring and improving hygiene practices in a healthcare setting, thus aiding in the prevention of hospital-acquired infections. With the use of a ATP handheld and a ATP test swab, a healthcare worker can use the system in any area of a healthcare facility to quickly verify the cleanliness of surgical instruments, endoscopes or any non-critical surfaces such as counters, operating room tables, bedrails, computers, etc.—anywhere contamination can grow, affecting patient and staff health."

Mackay continued, "An ATP Contamination Monitoring System works via innovative bioluminescence technology to verify surface cleanliness, providing rapid and actionable data to Sterile Processing, Endoscopy, Operating Room, and Environmental Services departments. The ATP cloud-based application coupled with the 'Smart' handheld provide users with a visual presentation of the testing environments—along with a predictive scheduling of testing based on prior test results—while other features include RFID/barcode scanners for the quick and easy identification of test points."

He summed up, "With regular testing, tracking, and reporting, an ATP Monitoring System is truly an excellent tool that can efficiently identify problem areas, as well as make workplace cleanliness cost-effective while also providing evidence of due diligence to satisfy regulatory requirements."

Awareness and accountability

As with many factors that contribute to infection prevention, there is no one easy answer to the question of the best way to maintain hygiene accountability. Among the most noted and quoted replies from industry professionals are not only the awareness and education of hygiene practices, but also the verification by managers that any required compliance has been met.

Nancy Moureau, PhD, RN, CRNI, CPUI, VA-BC, is CEO at PICC Excellence, Inc., and also a research and educational consultant for Parker Laboratories. She said, "Accountability for hygiene and safety for patients and healthcare workers revolves around educators and managers monitoring activities for compliance with policies. With the high volume of patients and procedures, the number of tasks can be overwhelming and lead to shortcuts, use of whatever supplies are within reach, and clinical judgment fatigue. Constant reminders through multimodal education are necessary to maintain high-level accountability and awareness of safety practices."

Nancy Moureau

She continued, "But more than just education, someone needs to be watching. Just like with homework completed in grade school, if the teacher does not look at the work or grade the material, the student becomes less and less interested in performing at a high-level. While that is a simplified example, clinicians often need to be motivated by who is looking at their performance. Management performing walking-rounds of work areas provide that level of accountability needed to maintain good performance and accountability for the best practices."

Addressing best practices of accountability, GOJO's DiGiorgio added, "The ideal would be to have an open, transparent, non-punitive environment where staff feel comfortable speaking up to one another if hand hygiene is not performed. When you've progressed to the point with your efforts where a nurse can stop a surgeon and remind him or her that they need to perform hand hygiene, it is truly a testament to what you've built with your program. It just takes a lot of work and is part of the ongoing multimodal strategy for improving compliance."

MD-Medical Data's Lee, pointed out, "Infection prevention is not just about the patient. It is about staff safety, too. Creating accountability through compliance audits has been done typically through the 'secret shopper' methodology. Unfortunately, this method is very limited in scope, accuracy, subjectivity, and is relatively ineffective. The current evidence-based methodology is the use of technology that allows for 24/7 data collection."

He advised, "Be careful here, for there are a number of technologies on the market that advertise hygiene compliance. You need to understand what you want to measure. Some technologies only measure entry/exit at the doorway of the patient's room. Some will measure patient contact. Some will measure various contact with patient environment, like workstations, keyboards, bathrooms, etc. The CDC says, 'If you are measuring entry/exit methodology, you are measuring the wrong thing.' So, it is important to select a technology that matches your safety protocols and workflow."

More education, less HAIs

As hospitals and healthcare facilities look to meet established protocols for best hygiene practices, infection preventionists often look beyond the minimum requirements to ensure a higher level of hygiene is achieved whenever possible in order to prevent additional HAIs.

PICC Excellence's Moureau asserted, "Peripheral and central venous access devices are one of the biggest contributors to bloodstream infections. Many clinicians feel it is necessary to use more application of sterile insertion procedures. Unfortunately, observation shows us that even the most basic procedures have frequent contamination, that hand-hygiene practices are inconsistent, and that there is a need to emphasize basic aseptic non-touch technique practices for all procedures."

She continued, "One novel idea is using a sterile barrier between the skin and the gel and transducer, which reduces both infection risk and the level of disinfection needed for the ultrasound transducer. Another is having a standardized and complete IV start kit or central line insertion kit that clinicians can grab and use at a moment's notice."

Reiterating the importance of education, she added, "Again, we are back to education as a key element to reducing infections and providing the necessary information to help clinicians function with safe practices for patients. More time should be spent teaching at the bedside, reinforcing the basic skills of asepsis, cleaning tabletop surfaces, preparing supplies, and disinfecting intravenous access ports prior to


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connection of an infusion. Integrating ultrasound and more technical devices into our procedures also requires education specific to the low-level and high-level disinfecting practices necessary to avoid contamination during insertion of needles. Every clinician should take responsibility for education, teaching others, reading the research and recommendations, and helping to reinforce best practices every day."

Suggesting healthcare professionals think outside the box, UV Angel's Lee opined, "I absolutely think more can be done, I think looking at pathways of transmission and thinking outside the box. If we've always done something in a particular way and people are still getting sick, it is essential to think of alternative ways of transmission. Thinking beyond 'we need to do more terminal cleaning,' or 'we need to step up routine cleaning,' or 'workers have to wash their hands more,' but really consider the interplay between the air and people in the environment. The air may be creating pathways of transmission between surfaces, patients and staff. There is strong evidence that simple toilet flushing puts pathogens into the air, that land somewhere; on clothing, handrails, and surfaces in patients' rooms."

GOJO's DiGiorgio added, "While some issues cannot be solved immediately, returning to basic infection prevention measures can be initiated even at a local level. Unit-based managers are uniquely positioned to set expectations and provide direct coaching to staff because of their presence in units. Working alongside staff to pick a few items to improve upon can help facilitate buy-in and establish local safety culture. Changes to safety culture don't happen overnight, but setting goals and incrementally working towards improvement is key. Clear and frequent feedback plus action plans should always accompany an initiative."

MD-Medical Data's Lee pointed out the importance and value of the relationship between IPs and the C-suite in lowering the occurrence of HAIs by improving hygiene practices.

"I don't think we have done enough to improve hygiene compliance. We see HAI and antibiotic resistance back on the rise after COVID -19. Once again, infection prevention continues to move down the priority list for Administration. IPs need to have a seat at the table with Administration, Supply Chain, etc. and be recognized as an expense-reduction and revenue-producing opportunity. They need to be comfortable in presenting both a clinical and financial value proposition to the C-Suite."

Lee added, "IPs also needed to learn how to be comfortable with large data and analytics tools and seek to acquire these tools, such as hygiene-compliance technology. Additionally, IPs need to take a more synergistic, evidence-based and blended approach as suggested by SHEA (Society for Healthcare Epidemiology of America), where they say, 'not one solution/intervention can move the needle on HAI, but a combination of solutions/interventions' (i.e., terminal clean robot + hand-hygiene technology)."

The costs of hygiene practices

With many hospitals and healthcare facilities still trying to recoup profits lost during the pandemic, the desire for increased hygiene practices may fall victim to decreased budgets.

UV Angel's Lee remains optimistic and said, "I think you can have really good hygiene practices and be cost-effective, considering the cost of infections, the cost of employee absenteeism and replacing staff that is out due to illness. Beyond financial burdens, we also need to consider the patients that are getting infections while being in the facility's care. If we can focus

Continued on page 37 ▶

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The changing landscape of sterile processing storage and containment

by Kara Nadeau

Surgical procedures continue to evolve, as do the instruments required to perform them. In some cases, instrument sets have grown bigger with the addition of items, requiring trays with greater capacity or multiple trays for a single procedure. Complex and delicate instrument sets present their own challenges with organization and maintaining integrity. Then there are the vast number of disposable supplies required to perform surgical cases.

Faced with these challenges, sterile processing (SP) teams are reconfiguring spaces and processes and implementing new products and solutions. *Healthcare Purchasing News (HPN)* asked SP professionals for their success stories in containment and storage, and suppliers of these solutions for their comments and latest innovations.

Sterile processing successes in containment and storage

During my recent *HPN* Fireside Chat, "Sterile Processing Insights for Today's Demanding Landscape," I stressed the need for increased best practice sharing among SP professionals and teams.

For this article, Sean Weir, Sterile Processing System Educator, UPMC, Pittsburgh, shared his story of managing both a wrapped tray to rigid pan conversion, and installation of new SP department storage racks at two hospitals. Dena Ramirez, MSOL, CHL, CRCST, CIS, Sterile Processing Manager for Moffitt Cancer Center in Tampa, and CEO of The Ramirez Institute of Sterile Processing, shared her story of transitioning from stacked wrapped trays to each tray having its own shelf in storage.

Container and rack conversion at UPMC

With regards to the rigid tray conversion, Weir explained how wrapped trays tend to get "banged around" in the operating room (OR), leading to tears and holes. He offered this example:

"I checked a wrapped tray to ensure there were no breaches, sent it up to the OR in our dedicated clean elevator, and received a call from the OR team that there was a hole in it. I inspected the tray and there was a big slice in the wrap that wasn't there when I sent it up."

Weir embarked on a rigid tray conversion for all trays that could be containerized—80% of the hospital's inventory. He explained why he chose to standardize on a single container manufacturer:

"It removed the questionability of having 2-3 different filters, which locks to buy, all the consumables, etc."

The chosen containers were lighter in weight compared to competitor's trays, which was an important selling point, said Weir:

"Some manufacturers' rigid pans weigh about a half pound or 1 lb. more than others. You may not think that makes a difference, but when you are weighing out your trays and they must be under 25 lbs. inside the rigid pan, that extra pound could make a difference."

Another hospital was remodeling its SP department, so Weir took the opportunity to maximize its storage space (and that of another hospital). They selected DSI racks, which Weir said are


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DSI Modu-Max CTS units for instrument set storage at UPMC

space-saving, easy to assemble and use, and easy to clean because of their design.

"You want to make sure you have room for growth," Weir advised other SP teams when renovating storage space and selecting racks. "That is something most hospitals don't realize. Most storage rack companies will give you 2% growth, but that capacity is already full by the time of construction, or the trays are reallotted. I told DSI I needed 10-15% growth and we got 20%. By the time we were done we knew we needed that space."

Weir's advice to other SP teams when selecting vendors for containers and racks is "Customer service is the most important factor. These are capital expenses; therefore, the vendors should be there onsite to support your team. When one hospital converts, all the other hospitals in the system will look at how well the installation went and the quality of customer service provided."

Weir continued, "With the rigid pans, the vendor's regional manager and local reps unloaded the products, broke them down and helped us get them into circulation. If the vendor didn't provide this level of support, I would never buy from that company again. The rack conversion was just as smooth. DSI worked alongside our team, and we got the installation done in only three days."

DSI vice president, Ian Loper, said, "The storage equipment inside the four walls of an SPD is equally as important as the sterile instrumentation being stored in the department. This comparison equates to high importance. Without the right equipment, the people in the department can't function as safely and efficiently as they should be, reducing employee morale and increasing costs. Workflow bottlenecks, disorganized storage, compliance risks, employee safety, infection control, and wasted space are all directly related to the design and functionality of the storage equipment being used within the room. The storage area often takes up the most space within an SPD so why not do everything possible to optimize and upgrade the space?"

Shelving to eliminate stack at Moffitt Cancer Center

Ramirez made the switch from stacking wrapped trays to individually shelving wrapped trays at previous facilities and saw the benefits in terms of protecting trays from wrap breaches. When she joined Moffitt Cancer Center as Sterile Processing Manager, she wanted to take the same approach, leveraging Metro's MetroMax qwikTRAK floor track shelving to maximize storage capacity while maintaining wrapped tray integrity by storing trays individually.

When asked how she secured leadership approval and resources to recreate the SPD storage space with Metro and its products, Ramirez stated, "I pitched a good case. The reality is that stacked trays will have holes. That is the consequence. Making them realize the 'why' behind why we needed single trays on the shelves was key for me. The ratio to the holes in the wrap has gone down significantly just by this work alone. And they see that."

Ramirez's advice to other sterile processing managers when making the switch in tray storage is "Involve your team. I am a hands-on manager. Involving the technicians and getting their input was critical. We measured every shelf and made it exact to the size of the tray so we wouldn't lose any space."

Dave Salus, market manager, Healthcare Division, Metro added, "It's important to consider three aspects of instrument pack storage. For wrapped packs, the material of construction or surface must be smooth and free of sharp edges that can snag or tear the wrap material."

Salus continued, "Storage flexibility is key to achieving the most efficient use of the storage space available. Longer shelves with adjustable dividers provide the flexibility to size the storage compartment to the pack size, whereas narrow shelves with fixed uprights every 15 inches leave much unused space surrounding smaller packs or offer no option for oversized containers. Storage solutions utilizing antimicrobial properties will help keep the storage compartments cleaner between cleanings."


MetroMax I antimicrobial shelving

Continuous change drives broadening solutions

Change is continuous in both the OR and SP department, whether it is additional instrumentation for a new surgeon or specialty, or a shift where procedures and reprocessing are performed. Here are some ways container and cart suppliers are helping these teams adapt to change.

Addressing space constraints in ASCs

During her career, Barbara Ann Harmer, MHA, BSN, RN, vice president of Clinical Services, Innovative Sterilization Technologies (IST), has been involved in the construction of 45 ambulatory surgical centers (ASC) across the U.S. She commented on how most ASCs were designed with very limited instrument

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and supply storage capacity that can't accommodate today's volumes.

"In the ASC world, we have an absolute need for storage because so many procedures have shifted to this setting in the past 30 years (e.g., implant procedures, retina procedures) and the numbers of sets and disposables required are greater than they were previous to this," Harmer commented. "There are a number of companies providing offsite sterile processing services for ASCs today, as well as healthcare organizations building their own offsite locations to reprocess instruments for their own ASCs.

IST OneCart

She explained how IST has broadened its product family to include OneCart, a sealed case cart featuring a "modular, sleek and modernistic" design that is vertical rather than horizontal.

"We purposely went for vertical because the design requires a smaller footprint to be housed but still addresses the more intense requirements for supplies and instrument trays, as well as offsite sterilization needs," said Harmer. "We put very good casters on it, so it glides and moves with ease, which is the secret to any case cart. It also features a handle to make it more ergonomic; staff don't have to throw their body weight on it to move it."

She noted that with ASCs and other facilities sending their trays offsite for reprocessing, OneCart is "perfect" for organizations that must transport carts. "It is easier to secure in a truck because it doesn't require much space. From a sterile barrier perspective, OneCart features a sealing feature when you close it. It has a built-in tag that can be switched from dirty to clean, and is able to be locked when instrument integrity is a concern."

OneCart is designed to house IST OneTrays and be used in conjunction with the company's EZ-Trax modular set up for instrumentation.

Consolidating trays in one contained place

As Kelly Truppo, territory sales manager, Product & Marketing Specialist, Turbett Surgical, pointed out, it is not just storage space constraints that burden sterile processing teams, but also finding trays in storage when they are needed.

"When it comes to storage, locating instrument trays you need for a procedure is always a consideration for sterile processing departments," said Truppo. "The Turbett Surgical Instrument Pod ensures all the instrument trays you need for a single procedure are in one place. Multi-tray rigid containers also eliminate the need for racks to store stacks of blue wrapped or single rigid container trays, creating more space in sterile processing departments."

Turbett Surgical Instrument Pod

Containers and carts in a range of sizes

Healthcare facilities come in various sizes, with different surgical specialties performing varying levels of procedural volumes. Therefore, manufacturers of containers and case carts that offer a wide variety of options are well positioned to meet their range of needs, according to Marcia Frieze, CEO, Case Medical.

"At Case Medical, we design based upon usage," said Frieze. "Like a 'Russian Matryoshka Doll' each of our containment systems fits seamlessly one into another. Our SteriTite container aligns with the devices within. Our case carts fit the full range of containers. Having a range of sizes enables us to meet the needs of large medical centers, as well as small community hospitals and ambulatory surgery centers. In addition, we have a small case cart that can fit under a counter that we designed for the VA Health System that is fully transportable,

Leveraging AI to track device and supply usage

"Not all medical devices that go into the human body during a procedure are captured correctly," said Craig Crock, principal, Southwest Solutions Group. "This creates an environment where the billing to the client is not accurate. This process currently is very manual. The other issue is if there is a future recall on that device by serial number, they may not have correctly documented the device and will not know which patients are at risk."

During medical procedures, Snap & Go by Southwest Solutions Group uses artificial intelligence (AI) to monitor the usage and location of medical devices quickly and accurately in real-time, and documents the device being used in the procedure for future recalls and accurate billing. The system tracks all items used in a procedure, from implants to sutures.

Crock explained how the automated process requires minimal effort from hospital staff. "To start, the implant tracking system takes a snapshot of all the items used in the procedure. All the nurses have to do is place each item on the pad; the device snaps a picture, and when the light on the pad turns green, the nurse removes the item and repeats the process as needed."


Snap & Go from Southwest Solutions Group

Once a picture is taken, the image converts into machine-readable data. Using cloud-based AI management software, the system identifies the batch number, serial number, expiration date, and manufacturer SKU, and records this information directly into the patient's electronic file.

"If an item is unrecognized, the Identi inventory management software back-office support team will complete the information and update the item master, with no work required by hospital staff," Crock added. "The hospital charge-capture information automatically uploads into the hospital and vendor ERP/EHR systems for accurate billing, easy stock replenishment, and improved operating room supply management."

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closed and sits under a counter in their clinics. We also have small containers that have U.S. Food and Drug Administration (FDA) clearance for tabletop autoclaves, ideal for clinics and physician's offices."

Frieze also noted how she has seen movement from wrapped trays to sealed containers and from open case carts to closed case carts since the late 1990s.

SteriTite Stainless Steel Case Carts from Case Medical

"A sealed container provides the utmost in containment during storage and transport of sterilized medical devices," said Frieze. "Where open case carts used to be commonly used, closed case carts have replaced them as a more secure option. At Case Medical, we manufacture both sterilization containers and case carts that meet current standards for storage, transport, and handling. We use only reusable materials that are anodized and passivated for corrosion resistance."

Frieze added, "Further, both our containers and case carts have a unique barcode for tracking and tracing, working seamlessly with our CaseTrak360 software. No need for sticky labels, tarps to cover the open carts or wrap for sterile packaging."

Safely securing devices during transport

With more healthcare facilities transporting instruments and trays between various locations, keeping these assets organized and protected from damage has grown in importance. Manufacturer of engineered materials and custom packaging solutions Spartech has developed its MediSheet solution to securely retain medical devices on mounting cards placed within sterile packaging during shipment, storage, and ultimately surgery.

Spartech strategic accounts manager, Kendall Faulstich, noted, "Other medical product applications for MediSheet include everything from medical trays to safely securing tubes used during colonoscopy procedures. It's available in sheet and custom die-cut cards."

Considering efforts to reduce healthcare's environmental footprint, Spartech manufactures MediSheet using a polyethylene material. "It is a more environmentally friendly alternative compared to PVC when medical waste is incinerated for disposal," said Faulstich. "In addition, this option can replace lidded trays to reduce the amount of material used in the packaging."

Spartech Medisheet

Instrument containment goes high tech

Digital solutions are transforming healthcare in many ways. So why not sterile processing? Here is the story of how Zuno Medical developed its rigid sterilization containers with electronic monitoring.

The surgical team is preparing for a procedure. They open a standard rigid container and there is no filter, or they find a hole in a wrapped instrument set. The case is delayed until another instrument set can be found and reprocessed, and in the worst case, the procedure is cancelled.

"As orthopedic representatives in the operating room (OR), the founders of Zuno Medical experienced countless instrument processing errors," said Allan McNichol, CEO of Zuno Medical. "With current subjective methods to evaluate sterile barriers such as OR staff holding blue wrap to the light, they thought to themselves 'there has to be a better way.'"

The result is the Zuno Smart Container, "the first-ever sterilization container designed to increase efficiency across both SPD and OR by improving turnover times," according to McNichol. During the autoclave sterilization cycle, the Zuno Smart Container creates a vacuum seal, eliminating a porous barrier and the need for container disposables—saving prep time in SPD and evaluation time in the OR. The container continues to maintain and monitor the seal during transport and storage, enabling objective verification that the container's sterile barrier has not been compromised.

"At Zuno, we've embarked on a journey to develop a sustainable, disposable-free container and truly invest in the evolution of sterile processing," McNichol explained. "It takes only seconds to prep and with the absence of a porous barrier, sets no longer need to cool in an autoclave either, which further reduces turnover time."

Zuno Smart Container

A two-step verification system consisting of both a visual and a tactile check allows users to confirm the sterile barrier is intact at any time and most critically before a set arrives in the OR.

"It's been a long journey. Running smart devices inside a high-pressure steam autoclave is not necessarily an easy task," McNichol continued. "We're extremely proud to have received FDA De Novo clearance in a brand-new category—rigid sterilization containers with electronic monitoring."

The Zuno Medical team worked extensively with SP and OR teams in hospitals and surgery centers across the country to develop the Zuno Smart Container and ensure it met their needs. There were some valuable lessons learned along the way, including key design features such as a green checkmark instead of just a green light for users who may be color blind and space-saving concepts taking limited storage capabilities into account.

Having secured FDA clearance, Zuno Medical is planning commercialization of the Zuno Smart Container for Q4 of 2023. HPN

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◀ *Hygiene from page 26*

on the areas that are problematic, where infection transfer occurs, we can target specific areas where we consistently treat the air versus having to redo entire ventilations systems."

PICC Excellence's Moureau added, "It is very easy to look to the use of antimicrobial products and sterile gloves or procedures to reduce infection and provide safety. Rather than accepting the sales message of product, cost accountability is achieved through value analysis and investigation of the root causes. Often education, while also a cost, results in improved outcomes and cost savings. Understanding when to perform low-level disinfection versus high-level disinfection, with more costly equipment, solutions and more time, will, in the long run, provide greater savings by doing it the most efficient way, rather than the easy way of adding a new product."

She continued, "Careful consideration is needed to be both sufficient and efficient with our practices so that money is not squandered on unnecessary products or practices. Cost savings are gained with percutaneous procedures of ultrasound-guided peripheral catheter insertions using low-level wipes, or even the less expensive high-level disinfecting foams for disinfection of the device before and after the procedure, and instituting most of all, education with accountability through observation of practices."

GOJO's Rosenthal noted, "It's understandable that in today's environment, all healthcare facilities are watching expenses and trying to drive cost out where they can. But driving for the lowest price solution doesn't always result in lower overall costs, especially if what you're trading off is an increase in healthcare-associated infections or CMS reimbursement penalties."

She added, "What's important for those in purchasing roles to know is that healthcare hand sanitizers are OTC drug products that are required by the FDA to meet specific efficacy targets with multiple uses. But not all hand sanitizers are created equally, as many learned during the pandemic. In the case of hand hygiene, cost per ounce or cost per use depends completely on how much of that product a healthcare worker must use to get the efficacy that the product is claiming. Savvy purchasers are aware of this and work closely with their IP colleagues to make sure products are evaluated accurately based on the data shared by each manufacturer."

MD-Medical Data's Lee summed up, "Obviously cost is an important factor when it comes to improving and sustaining high quality and safety. I would ask IPs to become familiar with presenting the financial and clinical value proposition to Administration. If they don't feel comfortable doing this, ask for help. The investment that an acute care site might make into a several technologies should be balanced against the savings associated with cost of infection. A technological approach can save 50% to 75% on cost of infection. The ROI is substantial. One hospital system in Florida was going to spend $100 million over the next five years, and none of this was reimbursable. To summarize, the right technologies save lives, save money and are safer for staff and patients." HPN

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by Sarah B. Cruz

October 2023

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For more information, direct any questions to *Healthcare Purchasing News* (941) 259-0832.

LEARNING OBJECTIVES

1. *Indicate the key professionals required for a leadership planning session.*
2. *Assemble the necessary information for an effective session.*
3. *Categorize quick wins, long-term goals, and strategic initiatives.*

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The patient experience is a planned event in healthcare. From the moment the patient begins seeing the doctor to the day they arrive for elective surgery, the individual triggers a cadence of events that will create their patient safety story. Even in the case of an emergency when a patient arrives "unexpectedly," the professionals have had training and practice to prepare for what may need to be done in that particular moment. Typically, the processes are pulled from learned and pre-designed processes put in place for moments like this. It is true that although we cannot prepare ourselves for every specific emergency or hypothetical situation, healthcare professionals have demonstrated that we can prepare ourselves for intense and stressful moments by having core processes to default to. Every scenario, planned or not, in which a group of professionals can come together to pull from their expertise and carry out necessary actions that create the anticipated or needed outcome, can be attributed to a planning session. There is much to be said about the influence that an effective plan has on the ability to achieve much-needed outcomes, facilitate key performance indicators (KPIs), address corrective action, and ultimately influence the patient safety story.

Cadence & Forecasting

Every day includes a process called forecasting. Much like the way this word is used to determine the weather for the week, surgical forecasting allows perioperative and Sterile Processing (SP) leaders to predict the requirements and necessities of future surgical cases.[1] This form of predictive scheduling can be implemented as soon as the surgeon's office when the patient is scheduling surgery in a larger healthcare facility. This ability is a tool that creates a complete picture for the required series of events that must occur in order for that patient to have the surgery performed. That series of events is called a cadence. While the term cadence traditionally speaks to the rhythm of music, it has evolved to represent the professional activities that guide us.[2]

Cadences and effective forecasting are what allow for the operating room (OR) and SP staff to ensure that a surgical procedure can occur. The multiprofessional group involved must be certain they have the resources available to accommodate the surgeon's request.[3] The recipe for surgery always includes, but is not limited to, the availability of OR time, OR teams (nurses, surgical technicians, anesthesiologists, etc.), surgical theater equipment (monitoring, beds, etc.), and the surgical instruments needed to actually perform the procedure. These tools are the primary requirements for any type of effective planning.

Effective Response

The term "effective" in itself can be ambiguous. Simply put, it means producing a desired result.[4] The cadence is designed to demonstrate if processes are being done the right way to achieve effectiveness. SP department training, standard works, and best practices are tools used to adhere to the approved cadence and self-supervised transfer of the learned skills required to effectively respond to a situation.[5] The three components serve as the primary influence that shapes the way SP professionals perceive, engage, and perform during the situation. An effective response is defined by its ability to yield the anticipated result. In conjunction with the professional skills necessary to do so, SP professionals must be able to demonstrate interpersonal skills to respond effectively. High emotional intelligence (EQ) demonstrated through active listening, raising empathy, inclusive language, and team problem solving are just a few EQ qualities that will contribute to the desired results.

These skills are heavily relied upon to assuage high-stress situations with accurate and reactive responses. An example of this is seen when an add-on (a not previously scheduled and/or impromptu surgical procedure) is scheduled. This can result in a frazzled, overexcited response if previous

standard works and best practices were not prepared for and trained by SP professionals ahead of time. However, because the process (professional cadence) was already put in place, the SP tech can effectively move through the heightened and fast-paced situation and reach the required outcome. This success is much to the expectation of the perioperative team and to the necessity of the add-on patient.

Why Plan?

It is important to acknowledge that the role of an SP Manager is to efficiently navigate the team to achieve the facility's overall vision and mission through the operations and organization of the department.[6] This is done through a number of different ways:

- Motivating and growing team members
- Hiring and staffing quality professionals
- Conducting performance assessments
- Addressing conflict and providing resolutions

While these are critical job responsibilities, this is only a fraction of the roles and influence an SP manager must have on the department. They must incorporate these responsibilities into the daily operations and duties of a functioning department. As we all know, Sterile Processing is not an independent department. The collaboration of the multiple departments' contributors is required so that the demand and responsibilities expected of an SP department are met. By incorporating the goals of partnering departments into their own expertise on what must occur in their department in order to achieve the desired outcome, SP managers can demonstrate overall process contribution and success.

Anatomy of Planning

This is where an effective leadership planning session can make the SP manager's ability to perform significantly better and easier. While all perioperative professionals are acquainted with the ability to forecast the needs of surgery, this same principle is applied to planning for future prospects, goals, and emergencies that are key to overall department success. Simply put, planning is purposeful thinking before the action takes place.[6] The logical thinking and rational decision-making of a planning session affords SP leadership the time to consciously choose the purpose of a process, the outcome of a goal, and how to go about achieving such things concisely and purposely.

The length of planning sessions can be as short or as long as needed to determine the goals or outcomes associated with their purpose. Regardless of the purpose, all planning sessions consist of these key components:

1. Stakeholders
2. Key process indicators
3. Quick-wins and long-term goals of strategic plans.

Stakeholders are the individuals that may have an interest in the success or failure of a business, project, or group. They are typically linked to the planning session in question on a variety of levels determined by the amount of impact they could potentially derive based on the outcomes or reasons for the planning sessions. Primary stakeholders stand to be directly affected, while secondary stakeholders will be indirectly affected by the planning session. Key stakeholders can belong to both or neither of these aforementioned groups, however they have the ability to directly impact the efforts and outcomes of the group (positively or negatively). One of the biggest obstacles that SP leaders face is the ability to relay the information necessary to help these participants understand why they should have an interest in the session's goals. Another obstacle is that the leaders must be able to demonstrate how key stakeholders stand to benefit from their interest in the session's outcome.[7]

Key process indicators are what keep people interested. KPIs are used to measure the outcomes of processes. It is important that they are quantifiable so as to reflect the overall effectiveness of the process. This can be achieved through data collection, ongoing metric logging, and/or other dashboard tools. More often than not, KPIs are created in an attempt to guide a department or group of professionals towards an organization's defined outcomes. They are a key factor in "how well" a department is performing or not.[8]

To be strategic is to be designed and planned to serve a purpose. When a planning session incorporates a strategy into their design, it provides the foundation for initiatives that work towards a more focused and specific outcome intended by the organization. In these planning sessions, the initiatives that are created will speak specifically to the KPIs and stakeholders of the organization. SP initiatives are reinforced or implemented through their quality assurance (QA) programs and maintained by their quality management systems (QMS). The clearer the initiative is, the more the QA and QMS can be assessed, updated, and/or bolstered to help support the goals in place. Goals can be categorized into quick-wins or long-term initiatives. Quick-wins are just that: initiatives that create immediate successful outcomes that contribute to the major purpose defined by the planning session. These are used to boost morale, garner momentum, and demonstrate the ability of the team to uncertain stakeholders. Long-term initiatives are outcomes that will take a length of time to implement, monitor, and maintain before consistency and sustained success are demonstrated.

From Overwhelmed to Under Control

Let us outline a planning session based on the key points listed above. This is a simulated session between SP professionals discussing the issue only after it has been brought to leadership's attention.

The concern: Missing instruments are causing room delays.

Identify the stakeholders on every level and what their needs are.

- Primary stakeholders: OR staff that is impacted: nurses, surgical techs, etc.
- Secondary stakeholders: the patient, unbeknownst to them, is affected by this delay.
- Key stakeholders: OR leadership voicing the concern to SP leadership and surgeons that may be pressuring them to do so.

Determine what KPIs are in place or need to be created in order to demonstrate change, growth, consistency, or acknowledgement of change in this matter.

- Tracking system or paper documents that indicate missing instruments from setlists, missing instruments from case carts, current inventory (par level) of instrumentation.
- Frequency of instruments requested: day/time/surgeon requesting said items.
- Current staffing models and levels, department assignment schedule, training and standard works in place regarding prioritizing inventory.

Strategic Goal: To increase the availability of instruments that are contributing to surgical case room delay.

- Initiative: Determine the reason why instruments are not available for surgical cases.
- Plan:
  - Determine trends in request times, surgical case order, and surgeon preference (long-term)
  - Utilize tracking system data to determine if loaners or temporary sets need to be requested to supplement inventory (quick-win)
  - Analyze costs to create/supplement existing sets to accommodate requests (long-term)
  - Assess staffing structure to determine possible correlations between instrument availability and department productivity (long-term)
  - Evaluate instrument turnover process and streamline awareness and alertness to expedite reprocessing efficiency (quick-win)

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

- Implement standard works for clear communication and phone protocol to better relay when priority sets are needed same day (quick-win)

After all the discussion among SP professionals, the intended improvements and processes would need to be discussed by the OR leadership. They may be able to contribute their insight to many of the outlined solutions or even lend suggestions or knowledge of their own. This action also helps the key stakeholders understand their involvement in the solution and how they stand to benefit from the success of this initiative.

Effective planning is an essential tool in any leader's skill repertoire. Utilizing leadership planning sessions provides methodical and purposeful ways for SP leaders to forecast and incorporate cadence into their everyday department practices. Poorly executed processes lack the ability to yield any of the desired results of those involved. While the lack of successful outcomes really demonstrates the ineffectiveness of the planning process, it may cast a poor light on the SP leader's abilities. The inability to consistently achieve process expectations and meet the needs of stakeholders (upper-level leadership) have been indicators of "poor management" or ineffective leadership. Entire SP leadership teams have been relieved of their duties upon citing multiple instances of end results not having been fulfilled. By incorporating a purposeful and well-structured SP leadership planning session, stakeholders of every level stand to benefit through the clearly outlined and methodical approach of utilizing KPIs that contribute to the strategic goals, initiatives, and plans. This is the power and impact an SP leadership session will have on patient safety. HPN

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CONTINUING EDUCATION TEST • OCTOBER 2023

Education Nation:

Sterile Processing Leadership Planning Sessions

Circle the one correct answer:

1. **"Producing a desired result" is the definition of:**
   - A. Efficiency
   - B. Effectiveness
   - C. Purpose
   - D. Strategy

2. **Forecasting is a form of planning utilized by SP and OR professionals.**
   - A. True
   - B. False

3. **Components to an SP leadership planning session include:**
   - A. Stakeholders
   - B. Key process indicators
   - C. Quick-wins and long-term goals of strategic plans
   - D. All of the above
   - E. None of the above

4. **SP initiatives are reinforced or implemented through their:**
   - A. Quality Assurance Programs
   - B. Quality Management Systems
   - C. Both a & b
   - D. None of the above

5. **There are three types of stakeholders to consider in a planning session.**
   - A. True
   - B. False

6. **Which is a factor as to how a Sterile Processing professional interprets and carries out an SOP?**
   - A. Job skills
   - B. Workplace tenure
   - C. Learned habits
   - D. All of the above
   - E. None of the above

7. **Ineffective planning can reflect poorly on SP leadership's ability to problem solve.**
   - A. True
   - B. False

8. **To be strategic is to be designed to serve a purpose.**
   - A. True
   - B. False

9. **SP leadership planning sessions should include the input of professions that directly contribute to or are impacted by the outcome of the strategic plan.**
   - A. True
   - B. False

10. **Demonstrate if processes are being done the right way to achieve effectiveness.**
    - B. Determine if data is useful.
    - C. Are specific to the perioperative team.
    - D. All of the above
    - E. None of the above

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HEALTHCARE PURCHASING NEWS EDUCATION HUB

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Sterile Processing Week Is Almost Here: Invite Others to the Party

by Julie E. Williamson

Decades ago, the Healthcare Sterile Processing Association (previously known as IAHCSMM), created Sterile Processing Week—seven dedicated days in October spent honoring those all individuals within the profession and spotlighting their many essential contributions to patient care and safety. This week of honor begins each year on the second Sunday of October and continues through the following Saturday.

It is up to every SPD and healthcare institution—from the largest hospital networks to the smallest standalone facility—to make the most of the week. Creating a successful Sterile Processing Week takes planning and participation. For SPDs that haven't yet finalized their celebratory plans for Oct. 8–14 this year, HSPA hopes to provide inspiration and planning suggestions to create fun, educational, thoughtful, and memorable events throughout those seven days. Year after year, our Association hears from members and others within the SP community who proudly share their event details and express their satisfaction with receiving the accolades and appreciation they deserve. The best part? Most tend to agree that the best Sterile Processing Week celebrations are meaningful and uplifting, but don't hinge on hefty budgets. In fact, some of the most well-received offerings and plans cost very little or nothing at all.

Dig deeper

Food and beverages are a draw for any event and can be an excellent addition to the week's plans, but it's prudent to explore and provide fun and educational opportunities for SP staff, the customers they serve, and all other departments within the organization. This can include representatives from Infection Prevention, Materials Management, Surgical Services, Endoscopy, Environmental Services, Biomedical Engineering, and C-suite, among others.

Posters highlighting the SPD's many accomplishments—such as lofty productivity goals reached, error reduction and other performance improvement initiatives, certification status and more—can be posted in corridors, breakrooms, and other common areas. Game-based education provided in the SPD can keep learning fun during Sterile Processing Week and encourage wider multidisciplinary participation. Some SP leaders have even asked their healthcare customers, including those in the operating room, to provide joint education for those in both departments. Vendor representatives can also be tapped to provide quality educational inservices attended by SP professionals and some of their customers.

Although prizes are always a welcome addition, they also needn't break the budget. Small tokens of appreciation like coffee vouchers or candy are great options, but many people have shared that simple handwritten notes of appreciation are especially enjoyed by employees. HSPA provides numerous resources to help facilities celebrate Sterile Processing Week in style and show their commitment to their team, customers, and patients. From free downloadable and customizable SP Week templates (including cards, posters, and employee appreciation certificates) to tips to promote widespread awareness about the profession and increase engagement from SP employees and others within the facility, HSPA makes it easy to honor hardworking teams. (*Visit https://myhspa.org/resources/sterile-processing-week/ to access these and other helpful resources. This year, HSPA is also sharing positive messages and videos of support from HSPA Board members, staff, and supplier partners on its social media pages.)*

Many SPDs find success by carving out time for one event or offering each day of the honorary week. Hosting an open house on the opening day, for example, can be especially effective for driving interest and participation (ideally, SP leaders will send other departments written invitations to join in the festivities and can use the opportunity to share specifics about why they should attend). Recruiting SP team members to share their unique ideas for the week is another good strategy that keeps plans fresh and participation soaring. It is also essential that SP leaders work to include employees from all shifts, not just their own, and plan events that cater to their schedules.

HSPA is grateful for every Sterile Processing professional. We are thankful for the heart and soul they put into their work each day. With their tireless dedication, healthcare customers can count on clean and sterile devices for patient care—and with their continued due diligence and dependable equipment and process monitoring, procedures can be performed without delay. And with their unwavering adherence to industry standards, best practices and policies and procedures, patient safety is never sacrificed. We honor these professionals during Sterile Processing Week and all year long. HPN

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Testing Scissors–Part 2

by Stephen M. Kovach

Q September's edition asked: "One of my fellow workers will not use the non-latex material to test scissors. Instead, they use gauze. Is that acceptable?"

Let's continue.

A My assumption is your department might not have a written policy on testing scissors, which may be why your colleague is testing with something different than latex (artificial elastomer) material over gauze (an International Standards Organization [ISO] Standard). I found many statements inferring the use of latex as a test method back to 1990.

Under the "Inspecting/Testing" section called "Scissors: Check sharps for smooth edges," it states, "Check blades for nicks and smooth blade function. Check for loose screws. Test cutting ability by using a material that imitates human tissue qualities. The scissors should cut evenly all the way through the material."[1]

"Cut through a latex sheet with 3/4 of the blade. Latex provides slight resistance to simulate what your scissors would normally be cutting through. Make your initial cut with about 3/4 of the blade, leaving the 1/4 of the blade closest to your fingers off the latex."[2]

In a program given by Storz on scissors, they say "sharp instruments (scissors, rongeurs, osteotomes, curettes, knives) should be tested for sharpness and smooth cutting under magnification." They also state many facilities use TheraBand (e.g., exercise bands) to test sharpness of Mayo and Metzenbaum ("Metz") scissors. "There are two thicknesses: one for scissors with blades longer than 5 inches, and one for scissors with blades less than 5 inches."[3]

ASTM International's *Designation: F1079 – 87 (2017/R2022)* standard supports using many different test materials (e.g., gauze, latex, etc.). "6.2 *Cutting Ability*—The test material shall comply with the material specified in Table 1, Table 2, or Table 3. Clean scissors to be tested prior to testing. … Any bending or snagging of the test material anywhere along the cut, including the distal tips, shall be cause for rejection."[4] Those three tables list all test materials highlighted in this two-part article.

I believe one reason for switching to a latex-type material was to reduce lint caused by gauze. Many different original equipment manufacturers' (OEMs) instructions for use (IFU) give little to no direction on how to test the cutting edge. Rather, they focus on inspection.[5]

Personally, a department needs a general enough statement to cover all situations based on what I have presented. Some possible wording for a standard operating procedure (SOP) statement for testing scissors for sharpness is "As part of our functionality testing process, the various scissors in the department will be tested for sharpness (cutting edge) based on the review of the IFUs, standards, guidelines, and various technical literature on what materials (i.e., latex, non-latex, gauze, cotton balls, other material, etc.) should be used for testing the cutting edge of the medical devices."

Also cite in the SOP's footnotes the ASTM and ISO standards and various OEM IFUs of your department's purchased scissors (Fig. 1). My suggested statement allows for this based on the information presented.

It is important to *review* the IFU(s) in your department. Follow them concerning testing your scissors for sharpness and adapt them to your practice.

Consider this: if the IFU states to use gauze (and you are not using gauze), how do you justify using something else to test your scissors? And if the source of your latex material does not give any reference, how do you know it can be used and justified if/when asked for by any surveyor?

The *AKI "Red Book"* says, "As surgical instruments are made for specific application purposes, the functional tests must be carried out so that items that fail to serve their intended purpose are reliably recognized and discarded. If in doubt, consult the instrument manufacturer for suitable testing methods."[6] This statement is a good summary for this two-part article.

I would purchase both the ISO and ASTM standards and review them for proper SOP documentation. You will now have the "Why," to back up using gauze, latex-type, and/or other material in your department for testing scissors for sharpness.

Therefore, medical device reprocessing professionals need to make sure scissors (no matter the type) are clean and functional when placed in the tray. This means various scissors can functionally cut (per the different testing methods and references for use).

Being from Motown, I say know why "the way you do the things you do,"[7] when testing scissors for sharpness. HPN

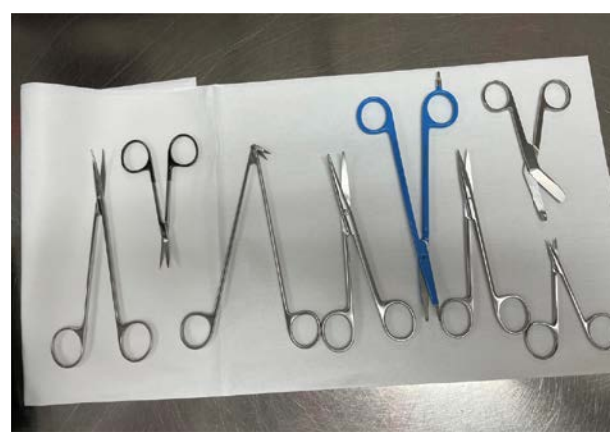

Figure 1: Various purchased scissors found in one department.

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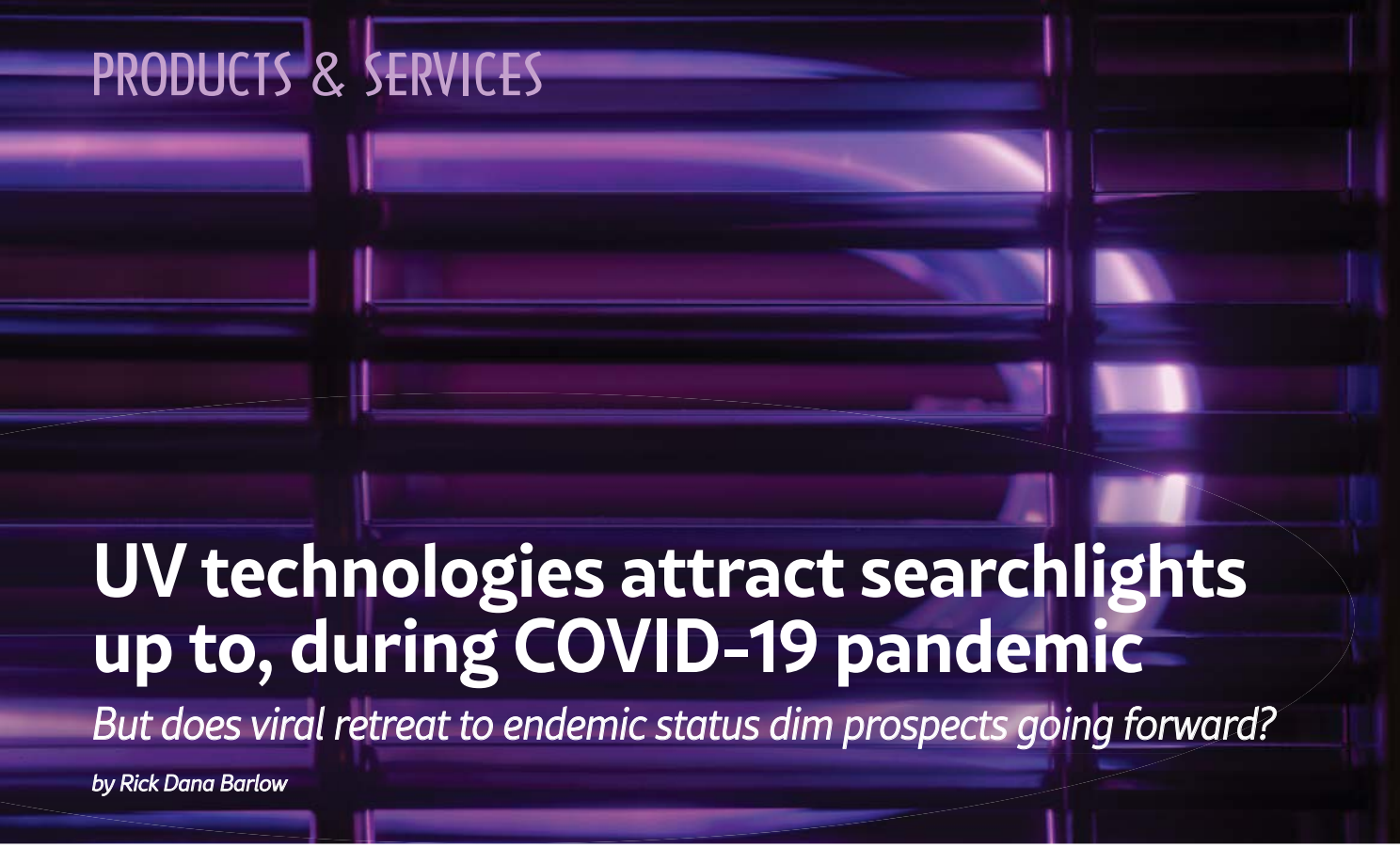
UV technologies attract searchlights up to, during COVID-19 pandemic

But does viral retreat to endemic status dim prospects going forward?

by Rick Dana Barlow



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During the nearly three-year COVID-19 pandemic, healthcare organizations scrambled to locate the silver bullet that would give them the upper hand to disinfect the air and surfaces from the highly contagious respiratory virus.

For many, that silver bullet appeared to be cloaked in ultraviolet radiation, and unfortunately, short of comprehensive and effective sourcing, a portion of what was emerging and available on the market seemed to generate questionable results.

Opportunistic marketing, coupled with unrealistic expectations and compounded by increasing caseloads as well as a powder keg of a working environment compressed an already over-burdened clinical and operational labor force suffering through budget restraints.

Until the onset of the COVID-19 pandemic in January 2020, ultraviolet (UV) technologies for water treatment, heating-ventilation-air-conditioning (HVAC) units and whole-room disinfection enjoyed steady growth since the mid-2000s.

Killing time

The first cases of COVID-19 may have caught healthcare providers initially by surprise that quickly morphed into shock as the virus expanded exponentially, depleting personal protective equipment (PPE) prematurely when compared to ordinary daily consumption patterns.

Ransom Willard

"The pandemic caused more people to look into UV technology for disinfecting high-touch items," recalled Ransom Willard, director and site planner, Hospital Safety Solutions. "During the pandemic, hospitals were looking for a quick and complete process for disinfecting items such as N95 masks, tablets and stethoscopes to name a few. Chambers with highly reflective interiors were used to accomplish that."

During the next few years, healthcare provider organizations concentrated on eliminating pathogens as a top priority with Infection Control, Willard observed. "The challenge continues to be a better understanding of how UV works and a faith in that photo-biological process since we cannot observe how much cleaner an item has become after exposure," he added.

Over the course of the pandemic, more people were learning about UV technology, which enabled manufacturers to concentrate on the technology itself, according to Sam Guzman, global sales director—Healthcare Solutions, American Ultraviolet Co. "The research was a benefit because it meant we had to spend less time educating the clients on the UV basics and we could focus more time on the proper application and their equipment needs," he indicated.

But the viral crisis created another emerging trend.

"One of the biggest changes and challenges was that the number of UV equipment manufacturers increased tremendously in a short period of time," Guzman continued. "This is both good and bad—good in so far as it provides the consumer with more options, but bad because some of the 'UV experts' weren't really experts. Selecting the proper equipment for the application, and the proper installation of that equipment is paramount to a successful project."

Kristine Steely, vice president, Global Sales, UVDI, remembers the plethora of choices that emerged.

"UV technology—and manufacturers—for air and surface disinfection proliferated exponentially during the pandemic," Steely noted. "It led to many unproven technologies seeking to opportunistically enter the market during a time of great need,

yet lacking in independent evidence for efficacy, efficient use and safety. This can create significant confusion for healthcare professionals to assess and to determine which technologies are truly effective."


Kristine Steely

Guzman credits two agencies for capable assistance. Groups such as the American Society of Heating Refrigeration and Air-conditioning Engineers (ASHRAE) and the International Ultraviolet Association (IUVA) stepped up as "unbiased resources" for the general public, he noted. Further, the interNational Association of Lighting Management Companies (Nalmco) started offering a three-tiered training program to certify installers, maintenance professionals and design engineers working on UV applications, which will help in further educating the public and will lead to more successful installations, he added.

"In the midst of the confusion, independent lab testing at real-world times and distances and peer-reviewed, published evidence is still the best, black-and-white proof for effectiveness," Steely said.

Even though UV technology technically hasn't changed in terms of efficacy, which is to deliver the right amount of radiation to the targeted areas of interest to inactivate the specified pathogen, the number of systems entering the marketplace has risen significantly, according to Steve Baiocchi, COO, Steriliz LLC.

"The challenge for the end-user is to be able to validate the effectiveness of the UV system(s) currently available—this includes both mobile and automated UV disinfection technologies," Baiocchi said. "UV systems flooded the marketplace during the pandemic and proved that not all systems are created equally. There continues to be misleading claims being made throughout the UV marketplace which proves to be a challenge for end-users."


Steven Baiocchi

To overcome this, Baiocchi encourages infection prevention and environmental services to work together to better understand system capabilities, such as total UVC output, dose measurement capabilities, efficacy, throughput and other specifications.

"The industry should really compare and contrast multiple UV systems for the best fit and cost," he recommended. "Validation questions absolutely should be raised during the sourcing and evaluation process. For example, a number of 'automated' UV systems are entering the marketplace claiming the facilities do not need a full-time equivalent (FTE) to operate when compared to mobile UV systems—which is simply not the case. There are a number of issues with automated UV systems, including charging time, facility mobility to address outbreaks, system output limited to the battery, no-measurement capabilities etc.—that sourcing needs to be made aware of."

Disinfection theater noise

Morris Miller, CEO, Xenex Disinfection Services, foresees significant changes coming to the UV technology industry—one of which involves standards.

"During the pandemic, new UV companies emerged and many of them made false claims which created a lot of market confusion—eight seconds to disinfect an entire room, UV wands, UV portals, etc.," Miller noted. "There were companies selling UV technology on Amazon! We call that the 'theater of disinfection,' and it's not good for patient safety or public health. We want higher standards for the UV industry."


Morris Miller

The number of new companies entering the market "causes noise for our customers," echoed Brian Donahue, vice president, Sales & Operations, The Americas, Finsen Technologies.


Brian Donahue

"Many customers are now weary of learning more about some of the new advances, so they stick with the top incumbents or just replace what they bought before," he said. "I strongly recommend that customers spend two weeks to learn who else is out there, and budget for a new system. The technology they buy should specify the 'how' of the unit—how does it measure or calculate adequate UVC dose each cycle. Price is a massive consideration, and as a result, the top companies have allowed imports to enter at a fraction of their price and performance, compounding the confusion." Like Guzman and Miller, Donahue emphasized the need for standards, citing the British Standard BS 8628:2022 for UVC used in a hospital setting as particularly helpful.

To counter any skepticism and cynicism about market opportunists, James Clements, director of Channel Management, Product Marketing, Excelitas Technologies, reassured about the efficacy, safety and utility of UV technology.


James Clements

"UVC tools and technologies are remarkably versatile and flexible for disinfection and pathogen inactivation applications ranging from water purification and food safety to healthcare-associated infection control," he said. "UVC disinfection—also referred to as ultraviolet germicidal irradiation or UVGI—utilizes equipment that has been used successfully for decades and comes in a wide array of form factors."

Clements blames some of the initial concerns about UV technology as a COVID-19 eradicator on a fundamental lack of knowledge about the emerging virus and its respiratory transmission pathway.

"At the onset of the COVID-19 pandemic, the mechanism of coronavirus (SARS-CoV-2) disease transmission was not yet well understood, and UVC product development strategies focused heavily on surface disinfection through conventional pulsed xenon, and low-pressure mercury tools," he said. "These tools are very effective for some pathogens in certain applications but had little effect on controlling the spread of this particular disease since the coronavirus transmission route is primarily through the inhalation of infectious particles (i.e., short range aerosol or airborne transmission). Once the mechanism of coronavirus infection was better understood, UVC global research and product development refocused on strategies that had been used earlier to combat another respiratory-transmitted disease—tuberculosis.

"Equipment providers developed products designed to inactivate pathogens in the air, producing truly effective tools to help control the spread of pathogens in occupied settings, and wherever individuals may be vulnerable to airborne infectious pathogens," Clements continued.

Still, Clements acknowledges that end-user education, public acceptance and the need for industry standards will challenge greater adoption. "Adoption will improve when end users understand the mechanisms of UVC disinfection, trust the

performance of UVC-generating devices, and feel they can rely upon the built-in safety features of newly developed products," he asserted.

Clements pointed to ASHRAE publishing its Standard 241 in July as making a difference.

"Standard 241—'Control of Infectious Aerosols'—is a groundbreaking code-enforceable standard, designed to help mitigate the risk of airborne transmission of pathogens in buildings," he indicated. "Within this Standard are requirements for equivalent clean airflow rates setting target requirements per occupant of pathogen-free air flow. In many cases, conventional HVAC simply cannot meet these requirements without extensive redesign and much higher energy costs."

UVGI, however, which includes Upper Air UVC LED equipment, "uses a fraction of the energy to deliver an increased equivalent of air changes per hour (e-ACH) and can be deployed throughout the healthcare facility—the exam room, patient room, waiting room—augmenting the ability of existing equipment to meet the requirements of Standard 241," he added.

Clements encourages everyone to participate in the process toward workable solutions. "Ideally, we should *all* be part of the solution: Each of us needs to be part of the feedback loop market development," he insisted. "Industry, product designers, academia, healthcare providers and standards agencies should all work towards communicating the benefits and ultimately deploying this really effective, proven technology to create an added layer of protection to patients and care workers within all healthcare settings."

Alice Brewer, CIC, CPHQ, FAPIC, senior director, Clinical Affairs, PDI Healthcare, recalled the debut of the company's Tru-D UVC disinfection device 16 years ago in 2007.

Alice Brewer

"Prior to the pandemic, some were skeptical of the efficacy of UVC disinfection, and others may have faced barriers to adoption because of cost," Brewer noted. Over time, adoption of "enhanced, 'no-touch' disinfection technology" increased significantly with a number of high-profile healthcare organizations investing in the technology, but the COVID-19 pandemic also changed how hospitals use the devices, she recalled.

"Some facilities now deploy them daily in all patient rooms, public areas, sterile processing and other spaces within the facility," Brewer said. "Further, hospitals expressed the need for disinfection of smaller spaces, such as bathrooms, ambulances and other areas, which is why Tru-D SmartUVC developed the Tru-D iQ Scout.

"The COVID-19 pandemic also brought to light the importance of surfaces receiving a measured dose of UVC energy to ensure all areas of a room are adequately disinfected," she continued. "Devices that rely on a fixed cycle time and/or multiple positions around the room provide inefficient disinfection and missed areas. A precise, measured dose of UVC energy minimizes that risk by calculating the time needed to react to room variables—such as size, geometry, surface reflectivity, and the amount and location of contents in the room."

Mad scramble

For UV technology companies accustomed to promoting products intended for high-quality cleaning and disinfection practices that yielded steady sales growth, the pandemic served as an abrupt wake-up call.

PDI's Brewer accentuated the positive in terms of performance and procedural expansion to keep pace with the migration of patient care.

"Throughout the pandemic, public-facing organizations of all kinds—including food, retail and commercial establishments, as well as schools, nursing homes and government-run services—reinforced their cleaning and disinfection practices," she assured. "This trend was especially pronounced in hospitals and throughout healthcare, where spaces and surfaces are being cleaned more thoroughly than ever before.

"The experience of the pandemic also spurred interest in enhanced cleaning technologies in other parts of healthcare, such as doctors' offices, clinics and ambulatory surgery centers (ASCs)," Brewer continued. "More people are having surgery in an outpatient setting, and the same concerns exist surrounding the cleanliness of the environment. Therefore, ASCs are becoming more interested in applying the technology in those spaces to make sure that their operating rooms are clean and there are no microorganisms left behind."

Others recall the ensuing market tension wrought by COVID-19's vigorous transmission rate.

Hospital Safety Solutions acquired a major product during the summer of 2019, predating the pandemic's debut by about six months. The timing offered little relief, according to Willard.

"We were hit pretty hard for devices and ended up renting the demo units we had on hand," he recalled. Since then, he remains mixed. "Demand is increasing, but it seems old habits of using cloth and cleaner die hard, even with some of the cleaning solvents requiring special disposal compared to a light that has no residual effect," he indicated. "Additionally, using UV light minimizes the margin of error inherent in cloth and cleaner application."

Excelitas' Clements remembers the mad dash to provide and acquire products.

"There is no question that some early products were rushed to market," he told *Healthcare Purchasing News*. "Understandably, there was a strong acute-stress-response and a need to take any action to help mitigate the spread of SARS-CoV-2. However, many early products were underpowered, ineffective or aimed at responding to the wrong mode of transmission (e.g., surface spread). Nevertheless, equipment providers that focused their product development on mitigating the true mode of pathogen transmission—aerosol transmission of infectious disease through small particles suspended in the air—were able to generate a robust, effective and safe family of UVC disinfection tools."

UVDI's Steely highlighted what healthcare providers needed on short notice.

"Prior to the pandemic, the primary need for healthcare professionals was the assurance a UV room disinfection device was truly effective," she said. "Today, many healthcare systems are still recovering financially and doing so, with smaller workforces and resources."

But Clements knows what must be done to prepare for what may be coming next.

"We should seize the opportunity to use what we have learned, the product improvements we have achieved and the changing standards, which can be met efficiently and economically with UVC technology," he insisted. "At a time when the Centers for Disease Control and Prevention (CDC) is reporting that currently 1 in 31 hospital patients has developed at least one [healthcare-associated infection] (HAI), and when some pathogens are spreading very rapidly (e.g., *C. auris* began spreading in the U.S. in 2015, and revealed a 318% increase by 2018), UVC technologies provide another, very effective tool in the infection-control toolbox."

For American Ultraviolet's Guzman, the COVID-19 pandemic has been something like a marathon sprint that took a serious toll.

"We saw a bit of a slowdown once the new case numbers started to drop," he observed. "We are still ahead of our pre-pandemic numbers, but things definitely cooled off a bit. In my opinion I think this was just a result of exhaustion. Our healthcare workers, [environmental services] staff, [infection preventionists] and purchasing managers were not only physically exhausted from long days, staff shortages and tremendous stress, they were being inundated with various 'solutions' everyday all day—wipes, electrostatic sprayers, antimicrobial surfaces and surface treatments, UV robots, handheld UV devices, fixed mounted UV packages and new chemistries/cleaning agents to replace the ones they were using that were out of stock. Sorting through the options and sorting through the good versus bad must have been incredibly stressful and all of this under the directive to get a solution as quickly as possible."

Customers may be frustrated, Finsen's Donahue lamented.

"Providers seem weary and rightly so," he said. "Many customers I have spoken to wave me off before I can even start to detail our differentiating features. There is so much social media that features devices with terrible designs or others that produce ozone, or others that contribute to cross contamination between rooms. Customers must dig deeper, and we as a sales industry need to push education more. From 2020 to current, we are still being blocked from even visiting customers in person and emails are blocked from their IT departments due to ransomware."

The federal government's downgrade of the pandemic to endemic status shouldn't shift healthcare organization priorities from combatting respiratory viruses or any other infectious microbes, sources contend.

"UV was well accepted to help reduce the spread of serious harmful pathogens that cause HAIs years prior to the 2020 pandemic," declared Steriliz's Baiocchi. "These harmful pathogens are not going away just because the government is declaring the demise of the COVID pandemic. In fact, new strains emerge constantly that require a bundled approach of various interventions—including UV to help reduce the spread."

Xenex's Miller agreed. "The healthcare community understands that COVID-19 isn't over," he said. "In fact, many cities are seeing an increase in cases this summer. The hospitals that invested in enhanced disinfection protocols before and during the pandemic utilize their LightStrike UV robots as part of an effective disinfection strategy to battle the pathogens we know about today—and the ones we'll face tomorrow."

Baiocchi recognized additional hurdles that complicate what healthcare organizations face.

"The post-pandemic environment has changed compared to the beginning of the 2020 pandemic," he said. "For example, there are workforce challenges that still remain, such as FTEs short-staffed, continued cost cutting measures and higher operating expenses. The attitude remains the same, where everyone agrees that using additional interventions, such as UV disinfection to create safer environments, is still a top priority. However, the lack of funding for capital equipment purchases continues to remain the No. 1 issue for acquiring more UV devices."

Light at tunnel's end

Guzman spotted a bright side: "What we are seeing now is an increase with a more educated consumer asking the right questions when comparing options, not in such a rush but looking long-term to get ahead of any future situations," he added.

Donahue agreed. "Despite the sales challenges of getting in front of the right customer with the right message/time/price, the IDNs that have embraced UVC will start to replace their broken-down units and other IDNs will start to buy for the first time. All healthcare facilities benefit from UVC as it supplements the manual cleaning of our human hands."

Clements concurred. "Healthcare organizations are responding by acquiring more of these devices and deploying them more effectively," he noted. "With the rise of HAIs, respiratory viruses, and the rapid emergence of new antimicrobial-resistant threats, healthcare organizations can use UVC tools and technologies throughout the facility—from ER to OR—to augment their environmental cleaning teams and terminal room disinfection practices."

Supply Chain must be part of the sourcing process with input from Infection Prevention and Environmental Services.

"Because UVC technology is so extremely versatile, it's important to understand which method of generating ultraviolet (via excimer lamp, pulsed xenon, LP mercury or LEDs) is the most effective for a particular application, and against a given pathogen," Clements cautioned. "Broad-based understanding and capabilities are essential to help educate the end-user, and develop focused tools that are effective, energy-efficient and environmentally responsible."

Steely emphasized the economic considerations as well as the infection prevention implications.

"While the assurance for proven efficacy remains strong, there is a greater onus on manufacturers to deliver financial flexibility and value," she indicated. "Examples include flexible payment plans, such as on-demand device placement programs, and moreover, to be able to demonstrate positive return on investment (ROI) with detailed analyses of how the upfront and ongoing investment can be offset by a decline in costs related to patient care." HPN

Monitoring, satisfying demand for UV technologies

With COVID-19 having been downgraded to endemic status, questions arise about how much priority will be granted toward sourcing ultraviolet (UV) technologies for cleaning and disinfection procedures in advance of the next outbreak when stacked up against such concerns as ongoing budget constraints and labor shortages, among others. Executives at UV technology companies recognize the dilemma that faces Supply Chain, Infection Prevention and Environmental Services and shared their thoughts with *Healthcare Purchasing News*.

Read this continuing coverage online at
https://hpnonline.com/53071720

ADVERTISER INDEX

E-VALUE-ating Products Across Environmental and Socio-Economic Factors

by Karen Conway

In April 2023, I wrote a column entitled "What Delivers the Value in Value Analysis," which recapped a webinar[1] on how sourcing professionals are starting to evaluate more than just cost and efficacy, including broader socio-economic factors, such as:

- How well a vendor manages and shares information on upstream risks to supply continuity
- The overall environmental impact of a product across its lifecycle
- Whether purchasing a specific product supports businesses in disadvantaged communities
- Assurances that a product is not made with forced labor

Liz Eisenberg, RN, who leads clinical value analysis for Scripps Health, participated in the webinar and noted how the factors to consider will vary by both the product category and the larger strategic objectives of an organization. For example, for some organizations choosing products that reduce greenhouse gas emissions may be more important, while for others procuring products from local, diverse suppliers may top the list. She envisioned a rubric where different criteria could be given differential weighting depending on the product category and/or strategic priorities.

A clinical procurement nurse in the U.K. was thinking along the same lines when she developed a tool to compare the environmental and social value of products. Clare Nash, who works with Sandwell and West Birmingham NHS Trust and The Dudley Group NHS Foundation Trust, developed the tool in response to new regulations in the U.K. that require decisions on all tenders to give 10 percent weighting to how a contract will deliver social value, as well as increasing requirements for suppliers to the National Health Service (NHS) to reduce the greenhouse gas (GHG) emissions associated with their operations and product lifecycles. The social value considerations must include ways to mitigate climate change, as well as other benefits that can include increasing employment and reducing health and economic disparities in local communities.

Clare's decision support tool is featured in a recent article in the peer-reviewed journal *Nursing Times*.[2]

The GHG emissions associated with the total lifecycle for products used in healthcare operations are significant contributors to climate change. Clinical and supply chain professionals can play an important role in sourcing products with a lower carbon footprint, if they have the data and tools to support those decisions.

Nash's tool is simple to use, incorporating a stoplight approach. Procurement professionals can evaluate different products by assigning red, yellow, and green measurements across six categories (energy, water, waste, transport emissions, whole life costs, and social value). For example, a product that requires more energy or water use would score red, while one with similar or lower resource usage would be rated as yellow or green respectively. The colors red, yellow, and green are correlated to the scores of 0, 1, or 2, respectively, allowing the products being compared to each be given a total numerical score. When no data is available, the score for a particular factor is zero. You can view a PDF of Nash's decision support tool at https://hpnonline.com/53071593.

While Nash's tool only considers environmental and some social factors, the approach taken could be extended to some of the other factors outlined above. Taking Eisenberg's idea into account, the factors could be changed, along with the weighting (or multiplier), to reflect what is most relevant for a particular product category and/or an organization's strategic objectives. An abridged and highly simplified version of such a tool is depicted below.

Using this chart, an organization can decide to put a higher multiplier on environmental factors when evaluating anesthesia gases, given the wide range in the GHG emissions across product choices. Organizations that have signed the White House Climate Pledge[3] might also rank environmental factors higher in order to lower their carbon footprints. On the other hand, an organization committed to supporting local, disadvantaged communities might rank health equity factors higher for products that can be sourced locally.

To make this concept work, value analysis and sourcing professionals need to be aware of their organization's strategic objectives, while working with internal subject matter experts and suppliers to gather the data needed to make informed calculations. It's true, in many cases we do not yet have the information needed, but envisioning a tool such as this could be the first step toward creating even closer alignment among various stakeholders, both internally and across the supply chain, to benefit patients and the planet. HPN

References online at https://hpnonline.com/53071627

FACTOR	0 points	1 point	2 points	Initial Scoring Product A	Initial Scoring Product B	Weighting/ Multiplier	Weighted Scoring Product A	Weighted Scoring Product B
Environment	Higher carbon footprint	Similar carbon footprint	Lower carbon footprint					
Health Equity	Product not made or sold by diverse supplier	Product made or sold by diverse supplier	Product made or sold by local diverse supplier					
Supply Continuity	Vendor doesn't share data on supply risk		Vendor shares data on supply risk					
Total Lifecycle Impacts	Product is disposable	Product reusable; sterilized off site	Product is reusable; sterilized on site					
Forced Labor	Unknown if product made with forced labor		Assurance product not made with forced labor					

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