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HEALTHCARE PURCHASING NEWS

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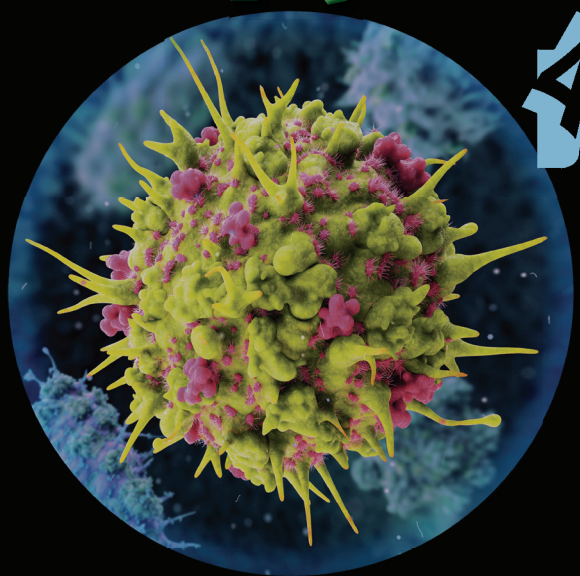

COVID-19 recovery

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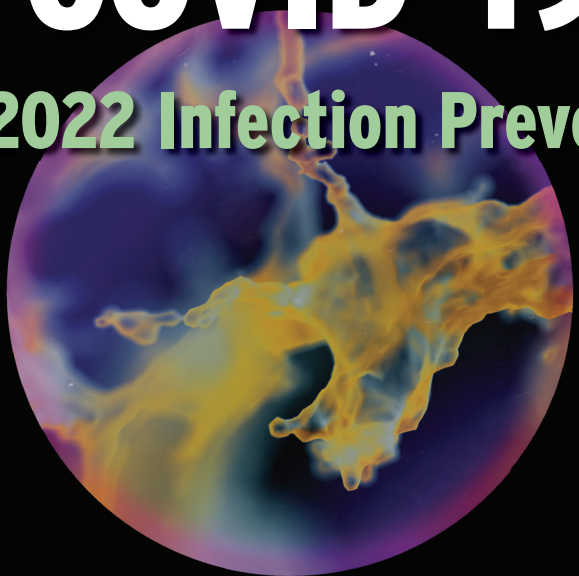

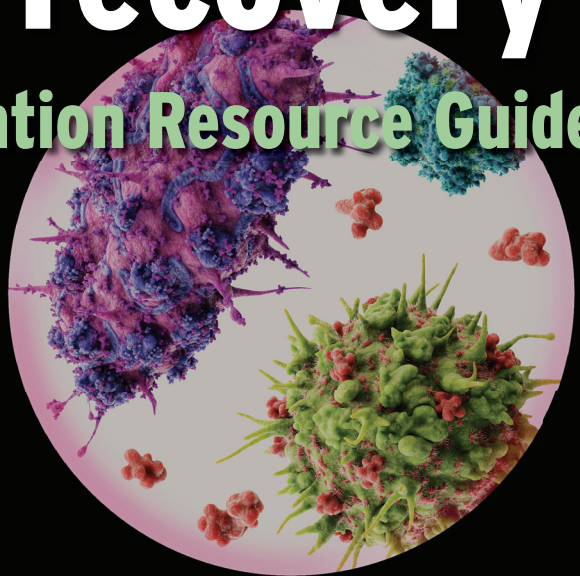

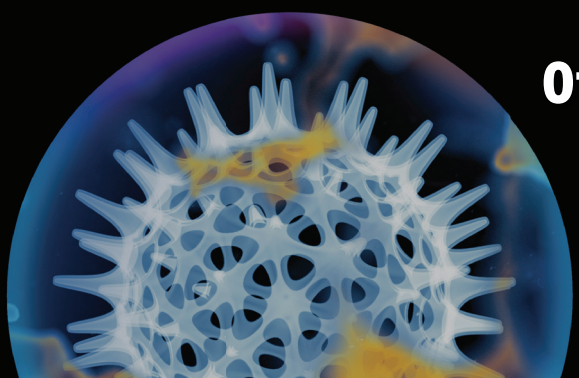

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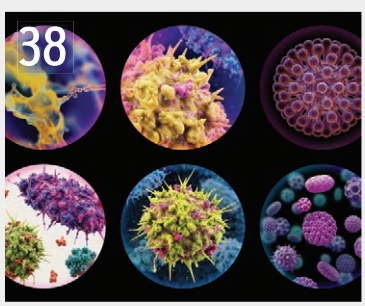

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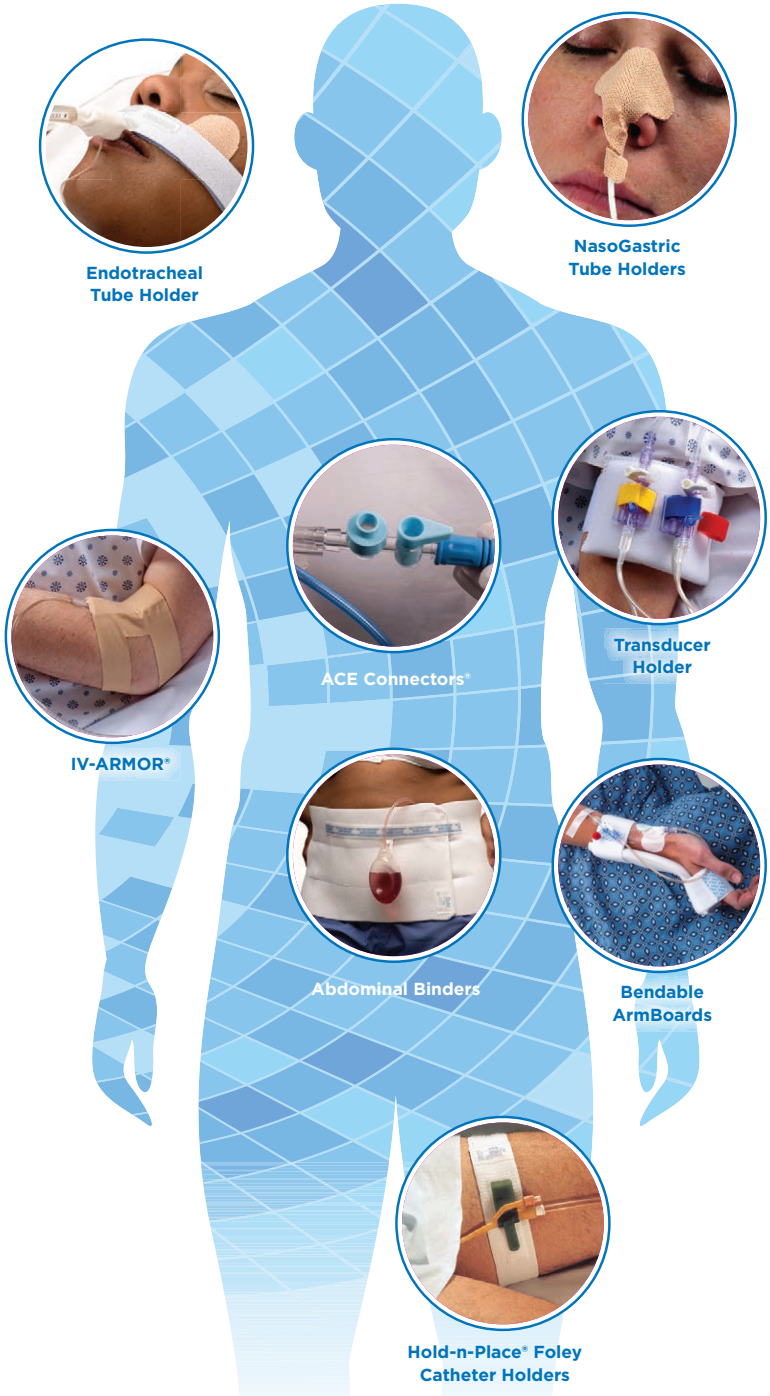

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BUYLINE

Rick Dana Barlow
Senior Edior

Maddening Multiverse of Makers

Opinions continue to percolate and swirl around ways to handle the pandemic-related product shortages and to prevent this calamity from reocurring. Everyone seems to embrace backordering and hoarding, of course, buy only as a last resort, or, more likely, knee-jerk first response.

Domestic production, nearshoring and onshoring opportunities also resonate. "Buy [North] American" may be a rallying cry (courtesy of trade deals between the U.S., Canada and Mexico). Kudos to those companies who already employ Americans and manufacture products in the U.S., but the question lingers about the pain of conversion. Has the pandemic elicited enough pain over convenience that buyers, sellers and regulators are willing to change their behaviors?

We've witnessed how intensely consumers want their stuff. Curiously, some notable media outlets have posited that the current supply chain woes, independent of the pandemic, can be traced to the idea that we buy too much stuff anyway. Let that linger a bit like the pressure release of a skunk or stink bug. In short, stop spending? That worked so well for the heavily restricted restaurant and hospitality segments during the last two years, didn't it?

Logically, if all the stuff we wanted were made here we'd have faster access to it, right? Unfortunately, that's going to require some serious behavioral modification. To their credit, some companies found ways to do that successfully. Good for them; good for us; good for the supply chain and economy. Other companies chose to go a different route hinging on a basic aim – to generate more revenue and ultimately more profit. How? Paying less for more work (product and productivity) rather than paying more for less work (again, product and productivity). Enterprising companies find the former in certain other parts of the world – not here – because the labor there is working to eat, to survive. These are two very important motivations driving a work ethic. They see the labor here as working for … more stuff and time-off … with pay.

For labor in certain other parts of the world, leisure represents nirvana, utopia. For labor in our part of the world, leisure represents necessity, rights. Distinct attitude differences, for sure.

Back in the late 18th to late 19th century, the United States progressed under a largely agrarian economy that morphed into a manufacturing economy for much of the late 19th to late 20th centuries courtesy of an Industrial Age. Through technological development in the late 20th century to here in the early 21st century, we've transitioned into a service economy fueled by the Information Age.

Are we better off? Depends on who you ask and how they perceive the supply chain – domestic or global, linear or multi-dimensional and omniversal.

If the pandemic taught us anything, it's that a linear supply chain, complete with links in either direction, downstream or upstream, easily can be overwhelmed by demand surges. This evokes an image of falling dominoes. Conceivably, it's more like a kaleidoscope of wing-fluttering butterflies. Or maybe it resembles one of those mid-century Cecil B. DeMille films with hundreds or thousands of extras in the cast – hordes of options versus hoarding as an option.

As we look forward to the second half of 2022, and presumably the last vestiges of the COVID-19 pandemic, we must be willing to embrace and nurture a new way of thinking about the supply chain – not as a chain, not as a channel and perhaps not even as a network (because we already have too many iterations of those anyway).

Maybe it's a community. If it takes a village to raise a child, then it takes a community to fortify and equip a healthcare organization.

A broken link in the chain, a clog in the channel, a short in the network, generally leads to crisis, disaster, disruption and upheaval. A community, however, fills in the gaps, plugs the holes, and satisfies the demand because it recognizes value in the outcome.

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FAST STATS

According to The Centers for Disease Control and Prevention, estimates for 2019 diabetes cases continued to increase in the US population. The report was last reviewed in December 2021.

37.3 MILLION

people of all ages—or 11.3% of the US population—had diabetes.

14.7%

of all US adults adults aged 18 years or older—or 14.7% of all US adults—had diabetes.

8.5 MILLION

adults aged 18 years or older who met laboratory criteria for diabetes were not aware of or did not report having diabetes. This number represents 3.4% of all US adults and 23.0% of all US adults with diabetes.

29.2%

of adults with diabetes are aged 65 years or older.

3%

Is the amount diabetes cases increased from 10.3% in 2001–2004, to 13.2% in 2017–2020.

283,000

children and adolescents younger than age 20 years—or 35 per 10,000 US youths—had diagnosed diabetes. This includes 244,000 with type 1 diabetes.

1.6 MILLION

adults aged 20 years or older—or 5.7% of all US adults with diagnosed diabetes—reported both having type 1 diabetes and using insulin.

3.1 MILLION

adults aged 20 years or older—or 10.8% of all US adults with diagnosed diabetes—started using insulin within a year of their diagnosis.

Source:CDC *National Diabetes Statistics Report, 2020, Estimates of Diabetes and Its Burden in the United States* www.cdc.gov/diabetes/data/statistics-report/diagnosed-diabetes.html

Photo credit: Proxima Studio | stock.adobe.com

NEWSWIRE

Supply chain opportunities and new perspectives

This month we deviate from our usual news format to cover content featured during a keynote presentation that emcompassed many of the challenges our healthcare supply chains continue to deal with due to the pandemic. In addition, there were enlightening stories about partnerships with local businesses developed by hospitals, that helped the community and the hospital systems, and promoted diversity and equity initiatives.

One of the partnership stories was shared by Richard Bagley M.B.A, CPSM, PMP, Senior Vice President & Chief Supply Chain Officer, at the Penn State Health about their Milton Hershey Medical Center. Bagley spoke passionately about about how The Hershey Company donated 22,000 square feet of new warehouse space. The new "KISS" warehouse helped the hospital system manage their incoming pandemic inventory for everything from hand sanitizer to disinfectant wipes and Personal Protective Equipment (PPE). Hershey even supplied six employees to help. This wasn't the only story of heroic and innovative partnerships we heard at this years Spring IDN Summit. *As a result, Healthcare Purchasing News would love to continue to share these types of partnership stories that illustrate the impact of successful diversity and equity partnerships with their communities. Please send them to editor@hpnonline.com.*

Building successful relationships

An IDN Summit Executive Leadership panel featured a quartet that explored how Supply Chain can empower opportunity, and offered new perspectives on operations. Brent Johnson, retired Vice President Supply Chain at Intermountain Healthcare, led his former colleagues Richard Bagley, Kreg Koford, Senior Vice President of Supply Chain and Hospital Operations at Memorial Sloan Kettering Cancer Center, and Joe Walsh - Coach, Educator, & Advisor at Supply Chain Sherpas, in a lively and insightful discussion around the supply chain's elevation to a visible, strategic player in healthcare's future sustainability. All four were instrumental in making Intermountain Healthcare a perennial top performer before moving on to other successful supply chain operations

The COVID crisis has made supply chain a conversation topic in every household, while thrusting healthcare supply chain into the national spotlight. Supply chain functions now have the attention of the country, but with this new level of strategic relevance, awareness and support, how will we show up? And how will we go forward at this unprecedented inflection point?

The conversation began with a question on how much the industry had really changed over the past several years. An informal survey conducted by Brent Johnson, reported that responders felt very little had changed, others saw skill sets that had greatly improved, along with the elevation of supply leaders in importance and stature. Other respondents pointed to an emphasis on strategic value and the importance of a resilient supply chain.

But how much of that change was driven out of necessity by the pandemic? It's hard not to recognize the changes that came from COVID – things like telehealth, remote work, risks of single sourcing, the true value of logistics, etc. In general, the experiences of the past two years have highlighted the challenges in healthcare supply chain management we have known about for some time. But now there is an increased sense of urgency.

There is no denying, COVID has served as a catalyst for change for the healthcare supply chain, in some ways, highlighting the vulnerabilities, and exposing the flaws of certain long-held strategies. But, as pointed out by Walsh, it created the means for supply chain to access "the spotlight we've always been asking for." He shared that supply chain now has the undivided attention of the C-suite. "There's new measures of success. Supply chain resiliency matters as much as cost reduction. Attitudes on working remotely have changed," he said. "Now the question is, what are we going to do?"

Identifying opportunities

Bagley referred to the current atmosphere as the perfect convergence of opportunity, motivation and capability for supply chain.

Walsh also clarified, "When we say supply chain, we're talking about everyone in this room – providers, your GPO, distributors, manufacturers, solution providers, we're all supply chain."

Bagley also focused on some perspectives that had been changed over the course of the past two years. Specifically, how nimble supply chain could actually be when there was need. Rather than focusing on endless committee discussions and bureaucracy, "If you've got the right product that can fill the right need, we can make decisions faster than I've ever seen in my lifetime," he said.

What are the pillars of success?

With these new opportunities and perspectives, what are the pillars of success that will allow supply chain to capitalize and truly advance its standing? The panel

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focused specifically on five: alignment, talent, relationships and communication, and strategies.

Alignment

Koford began the alignment discussion stressing the importance of being an equal partner with organizational leadership in the overall strategy. He stressed that the new supply chain leader must bridge the gap through the entire organization and understand the overall strategy, reinforce the impact of supply chain, and leverage that to gain the talent, optimization and the technology necessary. As an example, Koford cited the investment his organization, Memorial Sloan Kettering, made in demand planning. That investment, he said, has proven invaluable, "Paying dividends throughout the pandemic, providing the capability to pivot, leverage some of the insights gathered, and learn on the fly so that we could be more proactive."

Walsh shared a cautious note around the subject of alignment, stressing that supply chain shouldn't be subservient to any of the agendas of the CFO, CMO or even the CEO. "Haven't we just proven that supply chain is equal to the agenda of the CFO, equal to the agenda of the CMO and equal to the agenda of the CEO?" he said. "It's time to actually elevate the supply chain agenda into the boardroom sitting next to those leaders. Otherwise, I fear that no matter where you align supply chain, you'll always actually be serving somebody else's agenda, and actually missing the bigger picture."

Talent

Koford followed up with the need for investment in talent and the critical nature of having a talent strategy, especially with a national workforce that can work remotely. He emphasized building a strategy with leadership teams that are constantly learning and adapting to trends in the larger healthcare, political and business environments, so that they're not stagnant.

Of course, obtaining exceptional talent necessitates the ability and willingness to pay for it. "Today, every major university in the United States has an MBA supply chain program, or supply chain emphasis" said Johnson. "If we don't pay what the supply chain MBAs are getting in other industries, we'll never get them."

As part of talent, Walsh talked about the concept of "leadership preparedness," similar to, or part of, emergency preparedness. "We've got to have the right skill sets as leaders and we've got to have the right mindset to educate teams on the fundamentals of sourcing," Walsh emphasized. "They have to know how to do tactical sourcing, category management, and they have to know how to do procure to pay the right way."

Bagley added, "You need to upskill your talent, including your own, to lead us to where we need to get to, which is a stable supply chain," he declared. "So, when people in your community come to you for help, the products and equipment that are needed to deliver the best quality care, are there."

Relationships

When discussion turned to relationships, the panel stressed that another byproduct of the challenges of the past two years was redefining value when it came to relationships. "I think during the pandemic, one of the things that contributed to our success was the ability to call on key suppliers and understand capabilities, solutions, and where things stood, with transparency and honesty," Bagley said.

Rather than just beating each up over price, providers, suppliers and GPOs need to strive for deeper, interconnected relationships that stress shared responsibility and accountability, with a focus on the end user and meeting the needs of caregivers and patients. Bagley suggested measuring supply chain through the eyes of the customer. "How does it feel when you don't have what you need, or you have to change what you're used to?" he asked.

Bagley continued, "I think we've learned as well, that outsourcing our strategy to third parties that aren't invested in our communities is not a pathway forward." He cited several examples of partners in the community and suppliers who maintained transparency and a spirit of interconnected success, rather than a strictly lowest price, transactional approach.

Strategies & momentum

Walsh defined strategies as encompassing people, processes, technology and governance, across the three pillars of supply chain including sourcing, procure to pay and operations. He stressed the need for a roadmap, or short and long-term strategic plan, that will actually move the needle and improve those areas over time, being adaptive and proactive for changes and disruptions similar to what we have experienced.

"Our sourcing strategies have to adapt. We have learned sole source agreements are not the right answer in every situation. We've learned just in time inventory may not be the right answer in every situation," he continued. "Our inventory strategies and rethinking just in time, low unit of measure to right size, what that should look like?"

As the discussion wound to a conclusion the panelists were emphatic in imploring the audience to capitalize on the game changing opportunity. "I hope that we can leverage this to build the supply chain future that we need," said Bagley. "My challenge to you. Get invested in your local community, and your local healthcare. And if you're a supply leader, redefine what success looks like and focus on enabling our clinicians to be at the top of their game."

Walsh concluded by saying this same imperative applies to those on the supplier and GPO side as well. "You have to sell into providers in a very different way than you've sold into providers previously," he said. "You have to be informed about your supply chain, and what you're capable of doing in a very transparent way." He stressed that means internally, working closely with supply and operations teams, to have a standard operating procedure (SOP) process that maybe didn't exist previously.

"The days of going around supply chain and going to clinicians to get their approval are long gone," he stated. "Right now, supply chain is in the middle of every one of those conversations. I always say ignore supply chain to your peril. "

Honoring a legend

The panel ended with a special surprise for Johnson, as he was presented with the Chuck Lauer Award. Usually presented at the Fall IDN meeting, the committee made an exception, to honor an "extraordinary" member of the healthcare supply chain community. The award was named after Lauer, former publisher and editor of *Modern Healthcare*, who was a foundational builder of the IDN Summit, was known by many for his optimistic spirit and strong values, as well as selfless care for others. He lived by a strong commitment to excellence in work and life, strong ethical values and an unwavering patriotism and pride in the United States of America.

Brent Johnson

In accepting the award, a humbled Johnson took one final opportunity to elevate the supply chain profession and reinforce the panel's message. "I'm honored. But it's not about me, it's about you," he said. "It's about everybody that is trying to improve supply chain in the healthcare industry. It is our time. It's the right time. Do something with it. Don't just sit and do the same old stuff. Make a difference and do something with this change and opportunity." HPN

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PRODUCT & SERVICE LINE REPORTS

Constructing an effective glove chain to outrace spiking demand, usage

Hindsight offers foresight to prep for the next crisis

by Rick Dana Barlow

As a member of the personal protective equipment (PPE) family and a critical component of standard or universal precautions since the 1980s, gloves have experienced the same surge capacity challenges as other PPE components during the two-year-plus pandemic.

Gloves previously sank into backorder and shortage status during the emergence of HIV in the 1980s, followed by the rise of needlestick and sharps injuries during the 1990s.

For healthcare workers trying to protect themselves and their patients from exposure to infection(s) through the prudent use of gloves, ample provisioning remains necessary.

As healthcare professionals and organizations continue to navigate and negotiate around and through a pandemic response, this latest crisis – the third major one in as many decades – should serve as a clarion call to arms.

When it comes to manufacturing, distributing, storing, using and disposing of gloves, have healthcare professionals and organizations demonstrated progress in the stewardship of these critical product staples? Glove manufacturers and supply chain experts recognize and acknowledge progress, but emphasize that room for improvement remains.

In the wake of whipsawing

As the pandemic continues to linger like the persistent cough following a bout with pneumonia, healthcare supply chain executives and professionals, leaders and managers, scramble to assess, evaluate and take stock of lessons learned to be prepared for … the next time.

Think of supply chain during a crisis or disaster as a cross between Murphy's Law and Catch-22: If anything can go wrong it will as you deal with a dilemma from which you cannot escape or recover due to mutually conflicting or dependent conditions. In other words, a famished snake coiling to devour its own tail serves as a veritable pain in the asp.

Patrick Lewis, Vice President, Strategic Development, Tronex Healthcare, recognizes the juggling demands and pressures healthcare supply chain pros faced.

Patrick Lewis

"While the COVID-19 global pandemic saw a truly one-time unprecedented surge in demand and stockpiling that was well greater than the global manufacturing output and required re-scaling, the industry itself has been relentlessly tasked with generating cost savings that has come at the cost of contingency preparedness," Lewis observed. "Such drive for continuous price savings over the decades eventually compromised manufacturing diversification, as well as the ability for suppliers to carry substantial buffer stock given the sharply reduced margins and cost aversion when managing truly global supply chains to ensure business sustainability."

As a privately owned supplier of gloves and PPE for more than three decades, Tronex Healthcare committed to an inventory planning model that includes a signification investment level in adequate buffer stock. According to Lewis, "this principle enabled us to operate throughout the COVID-19 global pandemic without having to reduce allocation to existing customers on examination gloves."

Healthcare Purchasing News offered supply chain experts in manufacturing, distribution and contracting a list of seven probable causes for glove shortages that have occurred throughout the last few decades extending back to the 1980s with "other" as an option. [See the chart on next page for the choices.]

Chief among the leading causes was "supplier/vendor distribution challenges (e.g., storage; transportation via air, land and sea).

"Transportation bottlenecks exacerbated supply disruption due to the locations of product," said Margaret Steele, Senior Vice President, Med/Surg, Vizient. "Increased demand led to the need for increased raw materials, many of which were sourced from the same geographic regions leading to price increases and supply constraints. Increased production led to finished goods needing to be transported from similar locations using the same modes of transportation. This led to container shortages and increased shipping costs."

Margaret Steele

Corinne Schmid, Senior Director, Gloves, Mölnlycke, concurs, singling out each step in the transportation process, including containers, vessels, ports, labor shortages, trucking constraints and warehousing.

No. 2 points to "Behavioral/consumption patterns (e.g., copious use/overuse and waste from improper handling or use, etc.)."

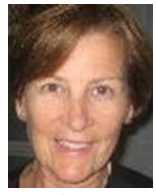

Corinne Schmid

"Increased usage during the pandemic was driven by anticipatory need," Steele noted. "Stockpiling became a proactive measure for many providers but created supply issues for those that lacked space and/or the ability to maintain large inventories."

Labor issues among suppliers of all shapes and sizes represent the next two.

"The unpredictable timing and duration of pandemic-related closures and disruptions further compounded the instability of an already fragile supply chain," Steele indicated.

Soaring and seemingly uncontrollable demand simply got the best of the industry, according to Rosie Squeo, RN, Senior Clinical Consultant, Business & Clinical Optimization, Cardinal Health.


Rosie Squeo

"When we look back at the challenges disrupting glove supply, we see that healthcare providers simply could not articulate the drivers of demand for their glove usage during the pandemic," she said. "They just knew they needed significant amounts of product. Similar to the 'burn rate calculator' listed as an example for causes for supply chain challenges, we saw massive panic buys from customers in February and March of 2020, which drained onshore, available supply before allocation controls could be installed. This created a bullwhip effect for the supply chain that has been a challenge for the industry to recover from. Initially, demand was almost unlimited, but now, as supply has caught up, we see a saturated market. It's still difficult to estimate when the stockpiles that have been built will bleed down enough for normal procurement patterns to resume."

Consequently, Cardinal Health rolled out a model to mitigate the uncertainty that it calls the Collaborative Planning, Forecasting and Replenishment (CPFR) approach. Simply put, Squeo describes CPFR as:

- seeking cooperative management of inventory through joint visibility and replenishment of products throughout the supply chain
- sharing information between suppliers and customers in planning and satisfying customer demands through a supportive system
- allowing for continuous updating of inventory and upcoming requirements, making the end-to-end supply chain process more efficient.

Although Meredith Fantom, Director of Marketing, Exam Gloves division, Medline Industries, proffers a clear ranking of probable causes to glove supply chain challenges, she recognizes that the hierarchy of needs may be a bit more interwoven and less demarcated.

"As the access to raw materials over the past few decades has remained consistent, supplier and distributor challenges with logistics of finished products remain a challenge," Fantom noted. "Unlike many suppliers and distributors, Medline operates a network of national distribution centers and a fleet of trucks that enable our company to easily move medical supplies across the country and often deliver within 24 hours."

Investment in information technology helped make a difference, according to Fantom.

"Within Medline's supply chain network, information technology upgrades that enhance visibility and tracking provide transparency into how our customer's products are moving through our system and combine with the efforts of our onsite analysts embedded within our customer's organizations to offer an unparalleled understanding of inventory needs, consumption and resupply status," she said. "In smaller organizations, we have partnered with organizations like Hybrent to help our customers access some of the value our onsite analysts offer by providing visibility into existing inventory, supplies on order and previous orders as well as the ability to order from all vendors in one place.

"From our perspective, the lack of visibility into the supply chain exacerbates supplier and vendor distribution challenges, making these two aspects of the healthcare supply chain the most vulnerable, especially for facilities in need of gloves and PPE in the era of COVID," she added.

But that's not the leading culprit behind the glove supply chain challenges, Fantom asserts.

The No. 1 issue disrupting glove supply is behavioral and consumption patterns," she insisted. "Frequently, facilities order a variety of gloves from various vendors in a variety of sizes without really taking a look at what they use, who is using them and where they are being used. Some facilities and organizations don't have a good handle on whose ordering gloves, the cost of ordering, or what role the glove plays in care delivery.

To illustrate this point, consider a multilocation health facility that is ordering gloves in a decentralized manner with each location ordering a different type of glove,

Probable causes of glove supply disruptions over the decades

Ranked by supply chain expert source opinions

1. Supplier/Vendor distribution challenges (e.g., storage; transportation via air, land and sea)
2. Behavioral/consumption patterns (e.g., copious use/overuse and waste from improper handling or use, etc.)
3. Labor issues among manufacturers
4. Labor issues among distributors, service/third-party logistics companies
5. Manufacturer access to raw materials
6. Information technology-related issues (e.g., tracking internal consumption patterns, using a "burn rate calculator," etc.)
7. Availability of counterfeit products
8. Other, such as market consolidation and larger suppliers forcing smaller suppliers to absorb demand

Potential solutions to glove supply shortages

Ranked by supply chain expert source opinions

1. More effective and efficient use of IT (e.g., for tracking and tracing comprehensive sourcing and consumption/usage data via product data standards adoption and implementation; discovering counterfeit products)
2. Nearshoring production/sourcing opportunities (relying on suppliers/vendors in an adjacent/bordering country)
3. Onshoring production/sourcing opportunities (relying on suppliers/vendors that return manufacturing/distribution services back to the country from which they originated)
4. Switching manufacturers, distributors or GPOs (e.g., contracting)
5. Domestic production/sourcing opportunities only
6. Backordering and hoarding when and where possible
7. Hospitals and health systems investing in/setting up their own manufacturing and/or distribution companies to serve themselves/each other
8. Other, such as multiple manufacturer product line locations

Source: *Healthcare Purchasing News,* April 2022

from a different vendor, in different sizes," Fantom explained. "Because they are not aggregating their order, they are not able to access the best pricing versus buying one bulk order from one vendor. If each location is ordering a different size or brand versus standardizing, they are introducing variances in care delivery and increasing costs.

"This is also where understanding your facility's consumption comes into play," she continued. "If your facility is ordering multiple brands and sizes but using one size or brand more often, eliminating smaller sizes or underused brands could be a cost-saving option that also opens up more room for the inventory of supplies that are more critical to operations. Finally, depending on who is placing the order and if the facility's individual locations are on your GPO roster, you may be missing out on additional cost savings by finding tiered pricing offered by your GPO."

Jeff Willink, Senior Director, Direct Sourcing Strategy and Continuous Improvement, S2S Global, a Premier Inc. company, points to geographic production limitations as the fulcrum.

Jeff Willink

"The COVID-19 pandemic illuminated our nation's overreliance on international gloves manufacturers - particularly with production of the bulk of the world's supply concentrated in a single region," Willink said. "Since early 2020, demand for gloves increased dramatically while at the same time, COVID lockdowns and geopolitical issues drove a massive shortfall in supply. In fact, via a January 2021 survey, Premier members cited access to exam gloves as the No. 2 greatest challenge to care for COVID-19 patients after clinical staffing."

The aftershocks spiraled out from there.

"Challenges to accessing gloves were compounded by massive shipping delays, increased lead times and container shortages, all of which contributed to unprecedented supply shortages and pricing levels," he continued. "The spike in demand also temporarily led to raw materials scarcity, creating shortages up the supply chain. All of these issues provided an avenue for bad actors with counterfeit products to enter the market."

Premier estimates that glove demand globally has exceeded production capacity by nearly 40 percent since the beginning of the pandemic.

Riding the waves like a pro, not hodad

Finding useful and reliable solutions to pandemic-driven and related supply chain problems has been priority No. 1 during the last two years. While everyone may not agree universally on any single option, they generally agree that competition should take a back seat to customer service and communication should conquer confusion.

"The most impactful method to best mitigate supply crises in this ever-changing world is the transparency and partnership between customers and suppliers to create meaningful value," insisted Tronex's Lewis. "There must be a true spirit of partnership to understand the nature of manufacturing lead times, manufacturing diversification, buffer stock, change in usage patterns and clarity of information passed between each partner to ensure preparedness and contingency planning, particularly how such aspects impact what is sustainable financially. This is especially true when it comes to gloves and disposable PPE in general."

HPN also offered supply chain experts in manufacturing, distribution and contracting a list of seven potential solutions for preventing, if not alleviating glove shortages that occurred throughout the last few decades extending back to the 1980s with "other" as an option. [See the chart on page X for the choices.]

Leading the charge? More effective and efficient use of IT (e.g., for tracking and tracing comprehensive sourcing and consumption/usage data via product data standards adoption and implementation; discovering counterfeit products).

Steele emphasizes that "efficient and accurate communication around manufacturers' on-hand and available inventory and/or allocated quantities for a specific provider" will make a difference.

Nearshoring production/sourcing opportunities (relying on suppliers/vendors in an adjacent/bordering country) came next.

"Healthcare providers need manufacturers to keep costs down while at the same time improving access to available product," Steele said. "With nearshoring and onshoring, manufacturers and suppliers can create additional points of production and storage of finished goods without having to navigate international waters."

But Steele acknowledges the challenges with onshoring production/sourcing opportunities (relying on suppliers/vendors that return manufacturing/distribution services back to the country from which they originated), which was third.

"While onshore production might be costly and still highly reliant on international-based raw materials, the act of onshoring and using a third-party logistics company for storage of stockpiled finished goods could provide an improvement over previous sourcing methods," she noted.

Switching manufacturers, distributors or group purchasing organizations (GPOs) for contracting and other services was listed fourth, but Steele expresses concern about that option.

"Assuming inventory allows, this is a reactive measure to dealing with supply bottlenecks," she noted. "[Another] suggestion would be to dedicate 15%-20% of purchases to a domestic alternative to provide additional supply resiliency."

Domestic production/sourcing opportunities only was one of the early pandemic recommendations but only reaches No. 5 now in hindsight.

"Assuming the availability of raw materials and cost equivalent labor/production, this is a viable solution to create redundancy and resiliency in the supply chain," Steele added.

Nearing the bottom? What most everyone ended up doing: Backordering and hoarding when and where possible.

"Third-party logistics companies and/or provider consortiums built around pandemic stock might offer a way to improve resiliency while mitigating cost and risk or obsolescence/expiration," Steele advised. "This solution doesn't come without additional challenges, however. According to a Health Industry Distributors Association (HIDA) whitepaper from July 2020, it's estimated it would take 13-15 tractor trailers to fulfil a 90-day stockpile of assorted supplies for a 350-bed facility."

At the bottom, largely due to the amount of effort, planning and investment? Hospitals and health systems investing in/setting up their own manufacturing and/or distribution companies to serve themselves/each other.

"This solution is largely scale-dependent for offsetting production cost," Steele said.

Still, Mölnlycke's Schmid emphasizes the fundamentals as top priority, urging the "standardization and streamlining of glove suppliers and selection and the increase of safety stock across all steps of distribution – hospital, distributor, supplier, factory."

Cardinal Health's Squeo offers a trio of tips to keep providers on track for supply availability.

The first? "Utilizing an effective inventory planning and storage strategy – for daily and long-term needs – with a supply chain partner that can help a facility cycle through product to minimize expiration risk," she said.

Next up: Renew, if not rebuild trust but recognize the cost for domestic production.

"While bringing manufacturing to the U.S. will help mitigate the issue, consider

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References: **1.** Final Design Verification Report. Mölnlycke Health Care. Data on File. **2.** Global Surgeon and Nurse Survey Conducted by SERMO 2020. Data on File.

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that in addition to the Chinese government shutting down exports, the U.S. also repatriated supply," Squeo said. "What will be the determining factors for the countries or regions of the world considered a safe, reliable partner when a crisis of COVID's global magnitude hits? Even within the U.S. borders, we saw states competing for access to supply and willing to venture into the grey market to build stockpiles.

"We need to rebuild and establish trust in the global supply chain," she continued. "We also need an effective global supply chains to manage the cost of healthcare. At Cardinal Health, we've consistently polled our customers to understand their desire for 'made in the USA' exam gloves, as well as their willingness to pay a premium for those gloves. Our research tells us that while many customers would like to onshore exam glove production, many are not willing to pay a premium for this product."

Third, never underestimate the value of data.

"More effective supply chain data will enable better projected supply health," Squeo insisted. "For example, during the pandemic, when the ports began to back up and constrain product on the water, our planning teams were forced to estimate goods receipt and transit times to replenish customers. The limits of transparency, tracking and information created frustration in an already challenged supply chain. At Cardinal Health, we're continuously looking at ways to improve our planning processes to better meet the needs of providers."

That's why Cardinal Health has been investing in inventory management tools, such as Kinaxis, to help navigate challenges and plan more efficiently, according to Squeo. "It may take some time, but we made this decision to ensure our customers experience benefits directly, including:

- "Concurrent planning with end-to-end visibility factoring in seasonality and pandemic planning and the ability to easily identify material constraints and viable alternatives
- "Instant demand and supply balancing that factors in capacity
- "The ability to simulate any scenario in seconds, expediting the process of distributing service issue alerts offering potential solutions."

Medline takes a hands-on consultative role in working with provider customers, according to Fantom.

"Medline helps its customers make the most effective and efficient use of their supplies, including gloves, by partnering with organizations to enable better tracking, efficient ordering, and usage monitoring," she said. "To achieve this, we partner with all levels of our [customer's] organization to understand where improvements can be made. This takes the form of cross-functional groups, onsite surveys and physician preference groups that examine how products are selected, ordered and used to find ways of eliminating variance, standardizing practice and ensuring the proper glove is used by department and by task."

Through its Glove Management Program (GMP) Medline can record and advise provider customers on exam glove consumption patterns.

"Through this we are able to objectively monitor a facilities glove usage, consolidate skus, reduce product waste, and ensure proper utilization for infection prevention protocols along with any necessary chemical protection," she said. "Once this initial step is taken, we work with our GPO partners and internal teams to find opportunities for our customers to switch vendors and access tiered pricing offered through GPO contracts. In our experience, collaborating with a partner like Medline enables healthcare organizations the best option to mitigate risk and increase operational efficiency without losing focus on their core goal – delivering the best patient care."

Premier's S2S Global cautions against fixating on any one strategy or tactic, opting instead for a more diverse mindset, according to Willink.

"Ensuring reliable access to gloves requires a multifaceted strategy," he insisted. "On the supply side, we must reduce our dependance on overseas manufacturing. Bringing back domestic/near-shore production and having greater diversity of supply sources would provide a more resilient supply chain. For these critical products, we believe there should be three or more global suppliers and at least one U.S.-based source readily available to serve the American people. Our broad base of qualified supplier partners allowed us to leverage available monthly capacity with multi-sources." [Editor's Note: Premier has been working with Honeywell as one of its glove supplier partners since July 2021. Honeywell did not respond to repeated *HPN* requests for comment.]

"Additionally, providers and other consumers have been implementing glove conservation practices and other precautionary measures with the goal of slowing demand and increasing product days on hand," Willink continued. "This is an industry-wide issue, so switching providers or hoarding product will not solve the issue in the long run." HPN

Reference:

1. Politiek K. et.al. Systematic -review of cost of-illness studies in hand eczema. Contact Dermatitis 2016.

There's more online!

"What might the future hold for gloves?" - https://hpnonline.com/21267405

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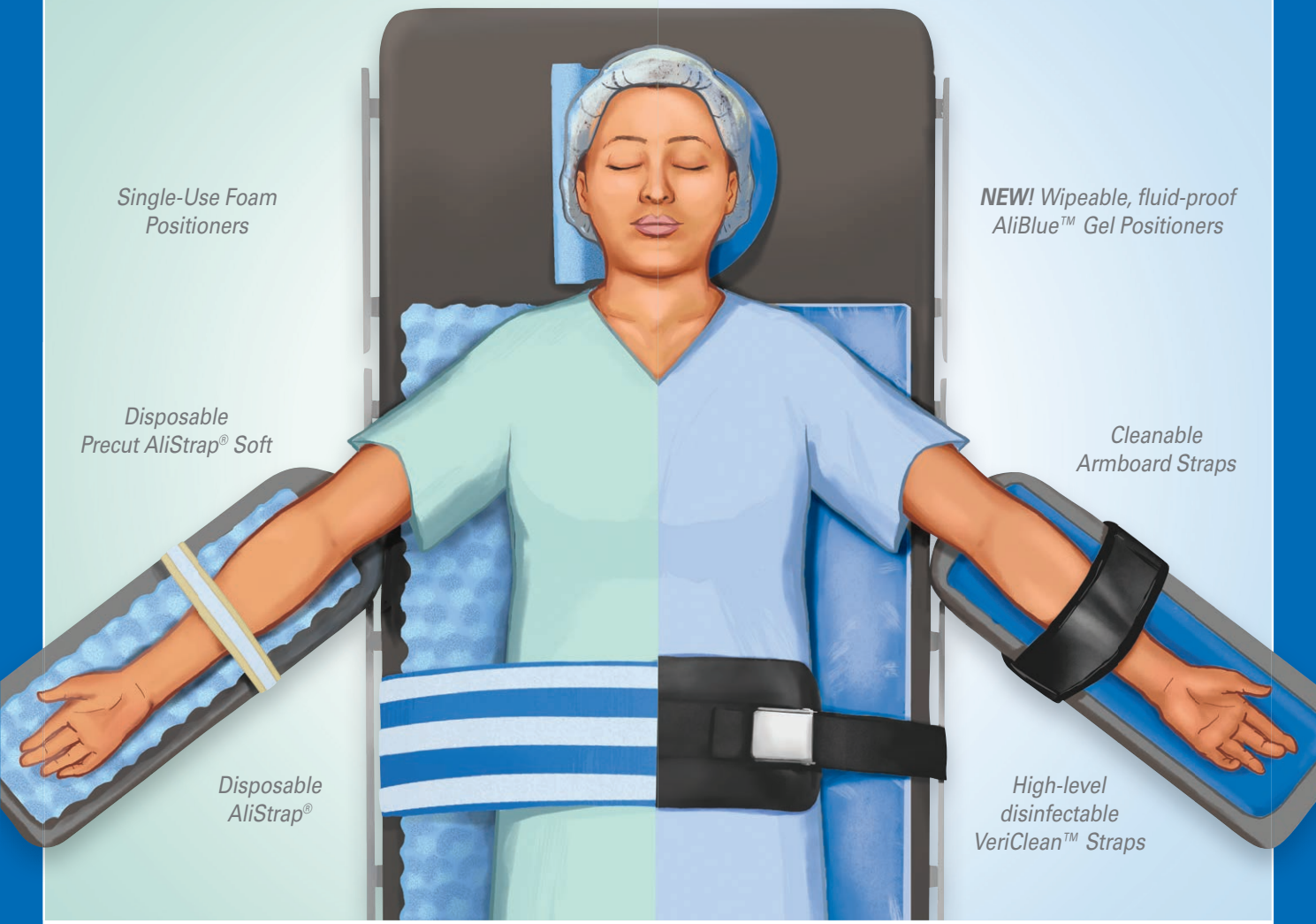

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Tracking the factors that affect healing

What comes before assessing, dressing and convalescing?

by Scott Tomko

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Wound healing in 2022 is as complex and complicated as ever.

Managing and treating them correctly in order to ensure proper recovery continues to plague both patient and physician.

There are endless factors that go into healing a wound, and so much of it derives from the many unique particulars of that patient.

Dr. Mathew Regulski is the Medical Director of the Wound Care Institute of Ocean County, LLC, as well as Partner at Ocean County Foot and Ankle Surgical Associates in Toms River, NJ. He has been treating wounds for over 18 years, and deals with over 10,000 each year.

Mathew Regulski

"You can't just look at the hole in the patient, you have to look at the whole patient. Wound healing is an incredibly complex biological process, and we probably know about 60% of how we heal. Most physicians in the wound healing space have a lack of education and therefore understanding of its many aspects," he said.

This epidemic is embedded deep within our culture; it's an unhealthy lifestyle that breeds diabetes, and in turn, many chronic wounds.

Regulski continues, "the inflammatory pathways of diabetes are instigated by obesity, and we're an obese country; we eat too much, drink too much, smoke too much, and don't exercise enough,. Two thirds of adults are obese. One half of all children. Obesity instigates Type II diabetes and is the underlying key to 13 cancers and 236 chronic diseases. So, if we got people to exercise and to eat better, we can probably get rid of half the chronic disease, which is staggering."

A complex industry

The wound care industry in 2022 is as vast and complex as ever, with the ways and means of treating and tending wounds as variant as the patients who possess them.

The need for quality products and technologies in wound care is only increasing. The aging population, the prevalence of diabetes and cancers, and the wide range of autoimmune disorders combine to create a billion-dollar marketplace.

In such a competitive industry that's overflowing with endless types of bandages, dressings, and other advanced measures, how does a company stand apart from the crowd?

Healthcare Purchasing News interviewed Kacee Huguely, Vice President of Marketing at Mölnlycke, a prominent manufacturer of wound care products.

Kacee Huguely

"We recognize that many patients struggle with poor quality of life due to their wounds. And on the other end of the spectrum, caregivers increasingly lack the time and tools needed to deliver quality wound care. At Mölnlycke, we're committed to addressing some of the most persistent, pervasive, and costly issues associated with chronic and advanced wound care," Huguely said.

Thirty years ago, Mölnlycke introduced its Safetec technology; these adhesives have been clinically proven to decrease pain to the patient as well lessen trauma to their wound.

"Our entire wound care product line is second to none and so much of that differentiation is due to our Safetac technology, which is less traumatic to the skin and the wound area than other dressings. That technology is integral to most of our dressing offerings," said Huguely.

Mölnlycke's specialized wound dressings include Mepilex and Mepitel, which are designed especially for the treatment of ulcers in the feet and legs.

Huguely continued, "the work we do goes beyond just a dressing – and I think that's why product lines like Mepilex have become so trusted and recognized over time. They deliver better patient experiences with less pain during dressing changes, which promotes efficient healing, and helps minimize the risk of complications.

"Additionally, we have the Mepitel line, which for patients with burns, has helped not add secondary injury to the wound. This also allows for undisturbed

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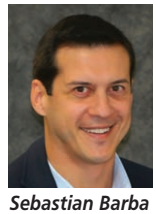
wound healing and comes in many sizes that give clinicians more options."

Dressed to live

Choosing the appropriate wound dressing is vital to proper healing. In fact, one of the major problems in wound care today is that wounds are not dressed to live, aka, promote healing.

Fortunately, companies such as Medline, a distributor of medical supplies, continue to develop transformative new products and technologies in wound healing.

When *HPN* asked Sebastian Barba, DVM, Senior Director, Strategic Marketing, Advanced Wound Care, Medline, about some of his company's most recent developments in wound management, he detailed one of the company's most recognized products, PluroGel Burn and Wound Dressing, as well as IoPlex foam dressing.



Sebastian Barba

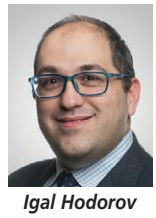
According to Barba, "a common challenge is managing pain from uncomfortable dressing changes in burn patients. This not only stresses the patient and the family, but it can also delay their discharge. PluroGel can lead to less painful dressing changes, allowing patients to achieve a better outcome while healing at home."

Barba described how Medline's IoPlex foam dressing has used a completely new approach, in this case, iodine, to effectively treat significantly recalcitrant wounds.

"It (Ioplex) is the only foam dressing with controlled release iodine. A recently published in-vitro study showed iodine is more effective than other topical agents for managing chronic biofilm infections. This allows healthcare workers to treat significantly recalcitrant wounds effectively, that before could have been stalled."

Another company that is making their mark in the development of advanced wound care products is Dynarex.

Igal Hodorov, Vice President, Sourcing & New Product Development at Dynarex, affirms his company's dedication.



Igal Hodorov

"At Dynarex we provide advanced wound care solutions with a wide range of specialized dressings. Some dressings are highly absorbent, multi-layered, and medicated based on the specific wound needs. Our dressings are specialized in keeping wounds moist, as well as absorbing and managing exudates. They also help facilitate the healing process."

Losing our footing

With the skyrocketing rates of diabetes (both nationally and internationally), the attention on diabetic foot ulcers has, and will continue to, heighten immeasurably. Close to 25% of diabetes patients will develop wounds in their lower extremities[1]; more than 10% of these wounds result in amputations.[2]

When one thinks of amputations, they may think of limbs being lopped off in the midst of The Civil War, because, at that time, we simply did not have the means or methods to save them. It's estimated that in that horrific 4-year span, approximately 60,000 soldiers underwent amputations.[3]

According to Regulski, diabetic foot wounds result in 80,000 amputations in the United Stats *every single year*. And, during the COVID-19 pandemic, the rate of amputations are 11 times greater than they were previously.

He continued, "The cost of treating a diabetic foot ulcer can range anywhere from $9,000 to $27,000. If you end up with a leg amputation, your chances of surviving for 5 years are less than 30%. The existential threat is that here in the U.S., we have about 95 million prediabetics; 5 to 10% of them are going to convert to diabetes. There are 37 million diabetics currently in this country, and about 2 million foot ulcers a year. Every 30 seconds, a limb is amputated due to diabetes (in this country)."

It seems we don't understand the the degree to which we are responsible for our own wound management, and healing progression. Such is the case where wounds arise in our extremities as the result of diabetes.

According to Regulski, "wounds get stuck in the inflammatory phase. They can't progress on and there's multiple factors, such as poor nutrition, and low levels of Vitamin C, D, and protein; these all need to be checked and supplemented.

Also, when patients have a diabetic foot ulcer, they need proper off-loading to rest the wound and protect it from shearing and pressure forces; if not, it will be very hard to heal. In addition to the pressure, other factors preventing proper healing include smoking, poor sugar control, peripheral vascular disease, acute infection, pathologic poor edema and exudate management."

Perhaps just (if not more) startling is that the negative circumstances of wounds can often be attributed to the doctors that are trying to treat them. As Regulski stated, "I've seen people that have come in and they've had four or five different things just applied to the wound, or they'd had eight or nine different antibiotics prescribed. I treat 10,000 chronic wounds a year and I've probably given out antibiotic prescriptions for 4 of them."

Numbers don't lie

According to the CDC, 1.6 million people in the United States had diabetes in 1999; in 2015, that number increased to 23.4 million.[4]

According to Regulski, "by the year 2030, one in every seven to eight people are going to be diabetic. When we look at people that have a diabetic foot ulceration, that alone carries a 50% mortality rate, which is higher than all cancers, with the exception of pancreatic.[5] In 2019, 4.2 million people died from diabetes and its related complications, and we spent $760 billion on its treatment.[6]

The numbers are inarguable.

For those of us working in healthcare, it is our duty to be constantly immersing ourselves in information. Regulski asserted, "I study and read about wound healing everyday. If I don't know something, I research it, I ask questions. I am not afraid to say that I don't know. I have been in practice for 18 years and can tell you that there are so many physicians who don't do that."

The innumerable factors and strategies vary between every patient and every wound. Thus, it could not be more vital to take a holistic appoach to wound healing. As Regulski said, its's a team effort.

"Wounds are a multisystemic issue that require a multifactorial approach." HPN

References

1. Bharara M, Mills JL, Suresh K, Rilo HL, Armstrong DG. Diabetes and landmine-related amputations: a call to arms to save limbs. *Int Wound J*. 2009;6(1):2-3.

2. Bosse MJ, MacKenzie EJ, Kellam JF, Burgess AR, Webb LX, Swiontkowski MF, Sanders RW, Jones AL, McAndrew MP, Patterson BM, McCarthy ML, Travison TG, Castillo RC. An analysis of outcomes of reconstruction or amputation after leg-threatening injuries. *N Engl J Med.* 2002 Dec 12;347(24):1924-31.

3. American Battlefield Trust. Amputations and the Civil War. https://www.battlefields.org/learn/articles/amputations-and-civil-war. Accessed May 16, 2022.

4. https://www.cdc.gov/. Accessed May 16, 2022.

5. Rowley WR, Bezold C, Arikan Y, Byrne E, Krohe S. Diabetes 2030: Insights from Yesterday, Today, and Future Trends. *Popul Health Manag.* 2017;20(1):6-12. doi:10.1089/pop.2015.0181.

6. Williams R, Karuranga S, Malanda B, Saeedi P, Basit A, Besançon S, Bommer C, Esteghamati A, Ogurtsova K, Zhang P, Colagiuri S. Global and regional estimates and projections of diabetes-related health expenditure: Results from the International Diabetes Federation Diabetes Atlas, 9th edition. *Diabetes Res Clin Pract.* 2020 Apr;162:108072. doi: 10.1016/j.diabres.2020.108072. Epub 2020 Feb 13. PMID: 32061820.

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As pandemic ebbs, payday more than just a tasty candy bar in tough times

Supply Chain compensation continues to climb, influence continues to expand

by Rick Dana Barlow

Even as the pandemic-addled supply chain endures pelts of media and public criticism for backlogs, shortages and universal inconvenience to spiraling popular demand, compensation levels for healthcare supply chain professionals seems to offer a much-needed respite from the pressure and tension.

For the third consecutive year, the average salary for a Director/Manager of Materials Management/Supply Chain exceeded the six-figure ceiling, according to the results of *Healthcare Purchasing News*' 2022 Supply Chain Compensation Survey.

Department leaders reported an average annual salary of $110,185, a 4.3% gain above 2021's average of $105,693, which nearly matched the 4.5% increase over 2020's statistic. The growth trajectory seems to be slowing since 2019, but it remains growth, the surveys have shown during the last three years.

Other titles within healthcare supply chain's leadership reported solid, respectable gains as well. At or near the top, Executive/Senior/Corporate Vice Presidents saw their salary levels jump 12% on average to $204,629 from $182,794 the year before. Compensation growth for Purchasing Directors/Managers recorded tempering growth, edging up only 1.2% to $75,588 on average from $74,659, itself a 3.9% bump from the 2020 level of $71,875.

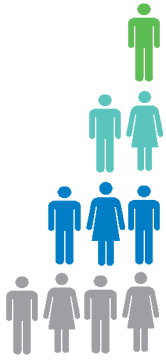
Overall, those survey respondents who received a compensation increase said it amounted to 3.6%, up from 3.2% last year.

Compensation levels for O.R. Materials Managers/Business Managers, increased 1.8% to $67,678 from $66,500 on average last year, while Senior Buyers/Buyers/Purchasing Agents saw their levels slide 2.6% to $49,285 from $50,592. Two other key titles saw significant drop-offs year-over-year on average – Chief Procurement/Purchasing/Supply Chain Officer and Value Analysis Director/Manager/Coordinator – but *HPN* explains the double-digit percentage decreases as due in part to lower sample sizes from those respondents checking the appropriate title boxes. Anecdotally, however, *HPN* also knows of several top-tier title holders earning in the high six-figure-to-low-seven-figure range, none of whom participated in this year's survey. See the chart below for the survey tally.

One curious but notable result involves the areas where survey respondents indicated they directly manage inventory. The big year-to-year movers are found in the clinical and nonacute areas. Diagnostic imaging centers and hospital-based radiology departments saw the largest number of respondents and growth. Thirty-three percent of survey respondents said they service diagnostic imaging centers, 14.9% higher than last year; 40.8% said they service radiology departments, 9.3% higher than 2021. Supply Chain providing inventory services to the laboratory grew 5% with 30.6% of respondents involved. Finally, 21.4% of Supply Chain respondents indicated they provide inventory management services to physician practices, 2.9% higher than last year, according to survey results.

Although not illustrated this year, the overall supply chain management compensation composite index (something of an unscientific salary stew of results derived by the average aggregate salary of all survey respondents) finally poked through the six-digit milestone a year ahead of *HPN* predictions in 2021, surging 14.1% to $110,400 from $96,750, the all-time high last year. Historically, since 2005, *HPN* has recorded 11 CCI increases. This element, while more trivial than statistically significant, measures more of a subjective impression of attitude and direction.

As an ongoing cautionary caveat, *HPN* advises readers that survey data and trending perspectives hinges on a variety of demographic elements that include the number and mix of respondents by job title, facility type and location and gender. For example, more senior-level executives who lead centralized integrated delivery network (IDN) operations



➔SALARY BY TITLE & GENDER	2021		2022		2022-Female		2022-Male	
Director/Manager, Materials/Supply Chain Management	44%	$105,693	39%	$110,185	22%	$88,243	25%	$127,797
Purchasing Director/Manager	16%	$74,659	17%	$75,588	12%	$63,375	9%	$86,833
Executive/Senior/Corporate VP, Materials/Supply Chain Management/Support Services	6%	$182,794	13%	$204,629	4%	$175,714	11%	$213,421
Senior Buyer/Buyer/Purchasing Agent	14%	$50,592	10%	$49,285		N/A	1%	$142,500
O.R. Materials Manager/Business Manager	7%	$66,500	7%	$67,678	10%	$46,250	2%	$73,750
Chief Procurement/Purchasing/Supply Chain Officer	2%	$209,583	4%	$175,000	4%	$61,666	4%	$88,333
Value Analysis Director/Manager/Coordinator	9%	$102,395	3%	$82,500	2%	$90,833	3%	$212,500
Contracts Director/Manager/Supervisor			3%	$91,666	3%	$90,500	1%	$67,500
Administrator/President/CEO	>1%	$185,000	1%	$125,000	1%	$72,500	3%	$95,500
COO/VP Operations			1%	$240,000	1%	$92,500	1%	$157,500
MMIS/Supply Chain Informatics Manager			1%	$82,500		N/A	1%	$240,000
Other			>1%	$142,500	1%	$107,500	1%	$57,500

*3.4% of survey responders opted not to share their gender, but are include in the salary summaries.

generally will elevate salary data, while more buyers at community hospitals may push the salary data lower.

HPN regularly monitors five key trending areas as illustrated in the charts and graphs within this annual feature.

In a stylistic departure from previous years, motivated by a desire for survey respondents to speak freely about their interpretation of the results and to share their raw observations about key issues and trends affecting the profession, *HPN* reached out to a variety of supply chain professionals, the majority of which are survey respondents, for their thoughts. To protect each from repercussions in a politically charged and sensitive culture, *HPN* granted each one anonymity, identifying only by gender, title and region of the nation in which his or her hospital, healthcare system or integrated delivery network (IDN) operates.

Gender studies

Men continue to earn more than women across the board. Check the charts here. The gap between them periodically has narrowed and widened since *HPN* began conducting this survey several decades ago. One year the survey saw women overtake men, and *HPN* thought a barrier had been broken … until a closer look at the survey demographics showed more women responding that year than men.

Not surprisingly, the survey results elicited few to no surprises from supply chain pros.

Per the male senior-level IDN Supply Chain Executive in the Southeast:

"I heard an interesting story on NPR the other day," he said. "It was talking to the differences in the continuing gender pay gap, across different industries. The place with the highest gap was financial institutions. In many places Supply Chain still reports up through the CFO. Coincidence? Finance, in general, is a conservative, and for a long-time, male-dominated profession. In my experience, the finance industry is slow to adopt change and likes the status quo. Not everyone is that way, of course, but for many in the industry, this is true. So that may be part of the problem. Having said that, I am seeing more female CFOs and financial executives, so change may be coming.

"In the transition from Director of Materials Management to VP of Supply Chain, there were a group of cutting-edge leaders who demonstrated and created a path to executive leadership," he continued. "At that time, I think there was more of a focus on getting a seat at the table, even though you may be the lowest compensated executive at that table. I think that was true for both men and woman in the early days. I think any raise seemed like recognition. The next generation looked at these existing executive positions and started pushing for pay equal to the other executives at the table. The new generation will accept nothing less than equal pay for the CIO, CNO, etc. As for gender, I do think we will finally see, in this next generation, a group of leaders who will be more focused on who can do the job and what is fair compensation for that job, regardless of their race, religion or pronouns."

Per the female Supply Chain Director in the Southeast:

"Men have historically dominated the Materials Management/Supply Chain industry," she said. "Healthcare Supply chain is no different. Healthcare organizations understand the value of the position that supply chain leadership can have, not necessarily based on gender. Women are still underrepresented in healthcare leadership roles. However, as companies are aware of this and willing to make changes necessary, time will tell if women can once again overtake or come equal to men in their roles. Encouraging young women into the field of Supply Chain and Logistics, along with mentoring women who may just be entering into healthcare, will increase the female workforce in supply chain. Having strong female leadership in the C-suites as CEOs, CFOs and COOs can go a long way to help narrow the wage gap between men and women.""

Per the female Supply Chain Director in the West:

"Before we can compare, we need to confirm that the duties performed under a specific title are the same," she observed. "I have worked for many different systems, under the same title, with different pay scales, and never had the same responsibilities. Also, each system may value each title a bit differently, as in my current role as Director, which is evaluated as a VP level."

Per the female Value Analysis Director in the Northeast:

"Pay equity is a slow process that may take up to 268 years to close and is influenced by many factors," she quipped. "There is no one magic fix to a decade's long workplace practice. A holistic reason to close the pay gap is related to the U.S. poverty rate as quoted from Leanin.org: 'Closing the pay gap isn't just a win for women – it has social and economic benefits, too. If women were paid fairly, we could cut the poverty rate in half and inject over $500 billion into the U.S. economy.' (https://iwpr.org/wp-content/uploads/2020/09/C455.pdf) The same article pointed out that this is not just a U.S. issue, but a global issue."

Age, Experience and Longevity

The trend seems to be the more experience you gain, which can take years, and/or the longer you stay within an organization, which can generate influence and power, then the more you tend to earn.

Observed the female Supply Chain Director in the Southeast:

"It is rare these days to find leaders under the age of 40 who stay in one position for more than 7-10 years," she noted. "This has been the norm for seasoned supply chain professionals, yet unless there is a clear path and timeline for advancement, it is time to move on. Learn as much as you can and take that knowledge and experience and use it elsewhere. If you are able to relocate and work in nonacute care or long-term care and continue to grow in supply chain field, then I think you are more valuable than staying in one position for many years. Anyone looking at the résumé will see this person takes risks, enjoys change and is not stuck in one company's thought processes."

Observed the female Supply Chain Director in the West:

"The trend I have experienced in my 25-plus years in Supply Chain is that if you stay within a system, you are only going to grow with the small annual increase, even if you get a new title," she noted. "The current system no longer sees the value. One must move around to advance/elevate your title and increase your compensation, as the new system sees your value."

Observed the male senior-level IDN Supply Chain Executive in the Southeast:

"I think this is so very organization specific," he noted. "Having said that, if you stay at the same place you will see increased compensation, year over year. But I think that in order to see significant change in title or compensation, you have to be able to really market your achievements internally and be seen as a true asset to the organization. If the organization is progressive, it may recognize your true value. Even then,

SALARY BY TITLE & EDUCATION	High School	Associate's	Bachelor's	Post-Graduate's
Director/Manager, Materials/Supply Chain Management	$87,236	$73,461	$119,700	$132,800
Purchasing Director/Manager	$54,821	$63,055	$99,166	$114,166
Executive/Senior/Corporate VP, Materials/Supply Chain Management/Support Services	$177,500	$152,500	$185,833	$214,125
Value Analysis Director/Manager/Coordinator	$47,500	$67,500	$67,500	$115,833

the organization may heap praise but not money on you. So you may need take your talents [elsewhere] if the current organization is not willing to compensate you in the way the open market will. I would find it hard to believe that in the majority of cases, significant compensation [change] came without changing organizations.

"I don't have a magic number, but I have noticed that the average number of years, with no career movement for this up-and-coming generation, seems to be between three and five years," he continued. "I will say that if I look at a résumé and there are several, two-to-three-year positions, that is a red flag for me. However, it seems like job hopping is becoming more acceptable with this generation."

Education, Training and Certification

The trend seems to be the higher education you receive – including degrees and learning new skills and thinking – the higher your income trajectory. But how does or should educational advancement – including certification – really contribute to the direction of compensation levels against the backdrop of a demanding post-pandemic world?

Noted the male Supply Chain Director in the Southeast:

"I believe that in every profession education/certification levels affect earnings," he indicated. "More and more a Master's degree is the norm. Bachelor's degrees are more like a GED. Especially advancement to a Director-level or VP requires that the candidate has higher levels of education. It also is the norm to have a certification in Supply Chain (CMRP or CSCP, etc.). Problem solving, sourcing, critical thinking, communication with all levels of management, use of professional connections all contributed to being successful during the pandemic. Also, those attributes can be related to the personal abilities that an individual needs to accomplish with higher levels of education."

Noted the male senior-level IDN Supply Chain Executive in the Southeast:

"I think that the industry as a whole needs to reevaluate the obsession with higher education," he indicated. "In part because so many [human resources] application systems are set to automatically filter on the qualifications of the job description. In the past you may list the need for a degree, but you would get all of the résumés and you could weigh experience and skills against the need for a degree. You could talk to a variety of candidates with different backgrounds. In this way, you could match a person and their skills and characteristics to an organization's needs and its culture.

"I am afraid what is happening more and more often is matching a job description to a CV on paper. Résumés for excellent and experienced candidates may never make it to a leader's desk because of the bias toward a degree. A good part of many jobs, including Supply Chain, is [on-the-job training], and I think that is proving out more and more. Confident and strategic supply chain leaders managed the pandemic well, regardless of their degree status. On the other hand, leaders that looked good on paper were quickly overwhelmed.

Noted the female Supply Chain Director in the Southeast:

"Education is valued and required in supply chain without a doubt," she indicated. "However, that has not always been the case. There are successful supply chain leaders who have risen in their careers – myself included – through hands-on learning and experience. Continuing to accept new obstacles, ask questions, and grow in the job will lead to advancement.

"Yes, the certification programs and higher education can help," she continued, "but I think experience plays a larger role. Prior to 2020, supply chain was rarely spoken. The last two years of facing the daily shortages, backorders, and other challenges within healthcare have brought new awareness to the industry. You can have a Master's degree and still not know how to handle a crisis as we have been through. To be sure, there are great skills that can be taught in higher education, but then again, the task-oriented and relationship skills are usually obtained through experience."

Lasting pandemic effects

For the third consecutive year, the average annual salary for Supply Chain leaders at the director level has exceeded the $100,000 threshold. Granted, this partially can be attributed to cost-of-living concerns and the geographic location and organization type of the respondent. Further, most respondents said they feel rather secure in their positions. The pandemic certainly emphasized the need for – and value of – the supply chain and value analysis functions during a time of crisis and heightened demand for products and services. But as the pandemic subsides, is the profession seasoned enough to succeed in the future?

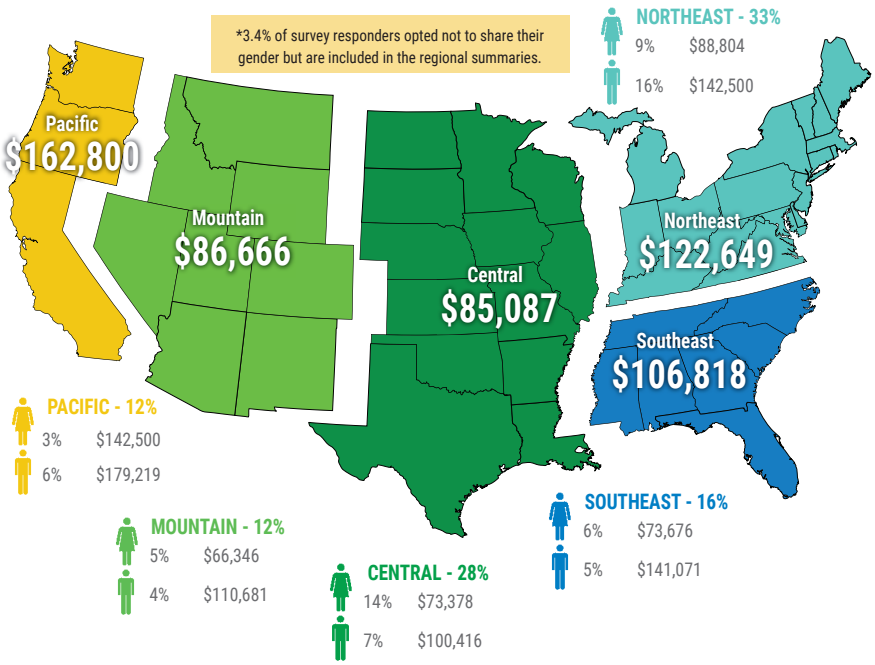
Indicated the female Value Analysis Director in the Northeast:

"The culture of each healthcare system was challenged by the pandemic," she said. "Some of those cultures were overwhelmed and some thrived. The 'COVID Era' has set the stage for high-demand information sharing, virtual networking, transparency, exchange of practices, a proverbial potpourri of 'how are you handling that.' Supply Chain leaders, arm-and-arm with their executives, must look inward and take stock of their foundational operations and human/physical/technology resources to reset their strategies, goals and tactics to meet the future path their organizations must take in the new, emerging healthcare swirling around them."

Indicated the male senior-level IDN Supply Chain Executive in the Southeast:

"It is likely that supply chains that did well managing the past several years of ongoing supply chain issues, worked well

➔SALARY BY REGION



Charts above display the average composite salary across ALL TITLES broken out by the factors indicated.

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with clinicians and leaders on how to handle backorders and helped to manage cost well, are feeling very safe in their organizations and their roles. Their CEOs likely have a new respect for the importance of a high-functioning Supply Chain. These same CEOs are likely more willing to compensate their Supply Chain teams more competitively to keep their level of confidence in a successful team. Unfortunately, I know of more than one example, through peer-to-peer discussions, of a lack of appreciation, such as Monday-morning quarterbacking by senior executives [asking], 'Why did we have to buy all that stuff and why did it have to be so expensive?'"

Indicated the female Supply Chain Director in the Southeast:

"Over the years as supply expenses continued to rise and the reimbursement has declined, the value in a qualified supply chain leader has never been more important," she said. "With that, value should come the higher compensation. Every product line is being looked at to see where money can be saved, yet still having the best possible product and outcomes. Supply Chain is not just placing product orders; we are looking at sourcing, reimbursement, standardization, quality and value of products. Organizations that provide a seat at the table for Supply Chain executives understand the value of what we do each day. The respect and appreciation should have been there before the crisis/disaster occurred, but we tend to be in the background as a service department for the clinical areas. Having the day-to-day understanding of caring for the patients, yet being fiscally responsible to the organization, is what we do every day."

Indicated the male Supply Chain Director in the Southeast:

"It's funny," he said, "I have never met so much and so often with senior leadership than when the pandemic started.

I have always been at the top of the salary compensation level. Most Supply Chain professionals report to CFOs who are usually stingy with money. Early in my career I passed on my first job offer as a Supply Chain manager. The offer was given by the Human Resources department. When the CFO called me and asked why I turned it down, I told him that it was the salary offer. After negotiating an acceptable salary, the CFO stated, 'I would have been disappointed if you hadn't negotiated out of the gate for your own salary. I know that I have the right guy.' I would expect my colleagues to do the same. Unfortunately, the data from the salary surveys does not support that.

"I think that the future for Supply Chain professionals is bright post-pandemic. Now with all of the Supply Chain logistics-related issues, Supply Chain professionals are even more important. It did take the pandemic to kick this in the butt. Whenever I see my CEO or COO, they are always happy to see me and ask questions related to the challenges that we have with all of the global issues affecting deliveries. I do believe that compensation should trend higher."

Indicated the female Supply Chain Director in the West:

"Supply Chain and Value Analysis are definitely in the spotlight more than ever," she said. "The pandemic brought the Supply chain out of the basement and to the Boardroom, enhancing the value that the hard work these teams have provided to staff and patient safety. I also see how the current Supply Chain shortage affects the nation that everyone is hearing in the news, social media and in their local communities. With the mandates for vaccination, many resources are leaving the healthcare market and/or deciding to retire. The nation is seeing this backlash as the available resources to replace the workforce is limited. With the continued stress on the Supply Chain, burnout is a real issue – administrators need to take notice on how to address before there is a crisis with lack of resources." HPN

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STERILE PROCESSING

Neither here nor there

It's the "how," not the "where," that determines reprocessing success

by Kara Nadeau

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In 2022, a growing number of health systems and hospitals seem to be shaking off the dust that has settled from the COVID-19 pandemic and focusing their sights on the future of healthcare delivery.

In the Central Service/Sterile Processing & Distribution (CS/SPD) department, this means forecasting future procedural volumes to determine whether current space, reprocessing equipment, staffing, and device/instrument inventory can support anticipated growth. This has led to an "a ha" moment for many who have determined that they need significant transformation across all areas of sterile processing to support the future of clinical care.

While some health systems are investing in current CS/SPDs to meet future demands, others are taking a different approach and either centralizing reprocessing to one hospital site that services all the others or moving CS/SPD operations completely offsite outside of the hospital setting. With each of these models, health systems must balance the pros and cons of their chosen approach.

"In the past year, I have come across several facilities that have changed their reprocessing strategy," said Malinda Elammari, CST, CSPM, CSPDT, CFER, CSIS, CRCST, CIS, CHL, CER, CLSSGB, Clinical Education Specialist Healthmark Industries. "Some facilities have moved to onsite centralized processing, while others have moved entirely offsite. Regardless of which system the facility chooses to utilize, each facility is unique in its approach and idea of the centralized concept."

Marcia Frieze

"There are advantages and disadvantages for each approach," said Marcia Frieze, CEO, Case Medical. "When you consider efficiency, having a state-of-the-art instrument processing department in each facility allows for quicker turns and certainly less instrument sets, because you do not need as much duplication to account for transport and travel time. Then having one location serving multiple facilities can reduce inventory and duplication of specialty sets and even equipment."

Factors driving reprocessing location

Health systems and hospitals are shifting from onsite reprocessing at each facility to offsite centralized reprocessing for a variety of reasons, as Elammari explains:

"Space, staff and standards are the three significant factors driving the health system to change to a centralized approach, I refer to this as the 3S effect. Larger systems seem to be shifting their focus to centralized planning. Such as a hospital system close to me that just opened their offsite facility roughly two months ago. Their driving factors are space limitations and volume growth. This offsite facility functions as a hybrid roll in conjunction with its three main facilities and helps support numerous clinical sites."

Procedure volumes

Healthcare facilities are performing a greater volume of more complex procedures with many CS/SPD departments struggling to keep up.

Ash Crowe

"As the complexity of health system's networks and surgeries themselves continue to increase, the demand on each facility's sterile processing department is being pushed to do more in their existing space," said Ash Crowe, Senior Project Manager, St. Onge Company. "Many Ambulatory Surgery Centers are now performing Ortho and other tray intensive cases with sterile processing departments designed for less instrument volume. Looking at the health system as a system and evaluating where best to reprocess instruments, either in a new centralized facility or by consolidating makes sense."

Standards and standardization

Seth Hendee

A focus on standardization, recommended by industry guidelines and enforced by accreditation bodies, has been driving the move to centralized reprocessing for years, according to Seth Hendee, CRCST, CIS, CHL, CER, CSPDT, CFER, HSPA Approved Instructor, Clinical Education Specialist, SPD, Healthmark Industries.

"When guidelines began stressing the importance of standardization of practice wherever instrument processing is being performed, survey organizations started looking for it," said Hendee. "At that point, organizations had a choice to make; attempt to enforce compliance across all processing areas or centralize processing in a single location. The later seemed a logical choice for many."

"Standards are playing a pivotal role in this movement," Elammari added. "The recent increased focus on SPD means an increased focus on AAMI standards and increased awareness of the correct procedures and operations, causing facilities to reevaluate department layouts, equipment and policies."

Specialized knowledge and training

"The most prevalent example of the centralized concept that I have come across is for complex specialty items such as flexible scopes and robotics instruments," said Elammari.

As Frieze points out, the wide range of devices and instruments used in healthcare facilities today necessitate specialized CS/SPD training and talent to properly reprocess.

"There can be human error given all the varieties of devices from robotics to navigation equipment and certainly flexible

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endoscopes for minimally invasive procedures. Thus, having a specialized reprocessing service with trained personnel can eliminate error," said Frieze.

Decentralization of surgical services

Tom Redding, Senior Director, St. Onge Company, notes how health systems are under continued pressure to reassess their surgical strategies to determine the appropriate balance between decentralization and regionalization of surgical services.


Tom Redding

"As the number of locations expand, the potential for inefficiencies and quality control will become more challenging for the health system," said Redding. "The need to develop a reprocessing 'center of excellence' for the organization can be a critical enabler for growth of surgical services."

"At St. Onge, we've had the opportunity to work with five health systems in the last year to assess and develop the centralization strategy for device and instrument reprocessing," he added. "The shortage in staffing and the decentralization of surgical services is forcing the health system to not get stuck in the 'build it again' mode for reprocessing services. We are seeing significant pressure on existing reprocessing infrastructure and the inability to expand their footprint to meets the needs of the facility and organization."

Equipment and process duplication

Crowe comments on how a centralized approach to reprocessing enables a health system to optimize resources – from staff training to instrumentation.

"Most health systems initially begin to evaluate a consolidated reprocessing operation as simply a cost and space saving measure. And, while the evaluation of the business case will often prove positive, the true value proposition for the health system is beyond any direct monetary benefits," said Crowe. "A centralized facility provides the opportunity to centralize training for staff, to more easily share instruments across the health system, engage surgical services in standardization, and improve staff satisfaction and retention."

Centralized reprocessing for offsite clinics has been the first step for many health systems, says Bryan Stuart, National Director of Consulting, Aesculap, in their efforts to maximize resources.


Bryan Stuart

"Let's say you had an anchor hospital with 40 clinics, 25 of them offsite, where each clinic was performing its own reprocessing. Processes and quality could be all over the board from one clinic to the next," said Stuart. "Therefore, the first big wave of standardization that I saw nationally was health systems centralizing reprocessing for clinics within one CS/SPD site. That move began raising challenges with regards to offsite reprocessing, including inadequate device/instrument inventories to support this model."

While Frieze personally feels each facility needs to control their processes and devices, and ensure that the patient comes first, she notes how offsite reprocessing might be a good option for ambulatory surgery centers (ASC), stating:

"ASCs could send a majority of their devices to the main facility daily to ensure that the full process of cleaning and sterilization occur with the same level of care as the hospital. Given the expense of low temperature sterilization, if each facility was to acquire this type of sterilizer it would be very costly to do so. If moisture and temperature sensitive devices are not used daily or several times a day, there is little need to invest in a low temp sterilizer for example. On the other hand, an endoscopy suite would be justified to make such a purchase."

Space constraints

"From the central sterile (CS) or sterile processing department (SPD) perspective, there are facilities that are large enough to perform onsite services easily. However, there are also facilities that have outgrown their onsite capabilities due to the addition of more surgical physicians or more surgical procedures," said Hassan Bilal, CRCST, CST Consultant, Educator, Author at Medline. "This can overwhelm their CS/SPD leading to the need for a change."

"Some large hospital groups have a different perspective," he added. "Due to their size and footprint, many have decided that offsite works better for the group and has developed one centralized location offsite to perform all the SPD duties for all the hospitals in the group."

According to Stuart, many health systems that have begun "right sizing" inventory to match volume suddenly realize they do not have the space to reprocess added items.

"Health systems began realizing that although they might have adequate space to store additional sterile inventory, they lacked the equipment and space to support the workflows required to reprocess this additional instrumentation," he said. "For most CS/SPDs, it is very challenging to acquire additional space unless it is new construction that takes into account today's sterile processing demands."

Disruptions to CS/SPD operations

Sometimes the decision to move reprocessing offsite isn't a choice but a necessity.

"In some cases, facilities may have internal problems such as steam quality, which will shut down their department and drive the need for portable SPD units which can operate outside of the external department," said Bilal.

In the province of Ontario and around Canada, Louis Konstant, Clinical Manager, Medical Device Reprocessing Department, Sick Kids, the Hospital for Sick Children, has seen cases where a hospital's aging CS/SPD infrastructure contributes to accreditation standards not being met that may result in consideration of offsite, third-party reprocessing.


Louis Konstant

"Most hospitals in the Toronto area are standalone in terms of their medical device reprocessing and while third party reprocessors have served few larger hospitals in the recent past, they currently serve mostly as a contingency," said Konstant. "Over the past few years, I have seen some healthcare organizations with systemic issues that could not reprocess onsite, so they have turned to a third party in the short run until the problems are resolved."

Konstant says while CS/SPD departments viewed third party reprocessors with caution in the past, this is changing. He states:

"In general, we are creatures of habit. Moving reprocessing offsite into the hands of a third party is a major change for an organization so many felt it was threatening. They saw risk in individuals outside of the hospital reprocessing items, perhaps not up to their internal quality standards and the devices not being available when needed. As well, the long-term viability of the offsite service and the difficulty of returning back to an onsite model are a concern. They also felt these parties threatened sterile processing jobs inside hospitals.

"Attitudes are shifting as more organizations have shown successful partnerships with third party reprocessors," Konstant added. "For many they are now seen as a back-up and serving smaller centers that don't have the resources to set up something onsite or have had some accreditation flags and don't want to assume the risk of onsite reprocessing."

Factors that improve offsite success

While offsite reprocessing can have its advantages, including process standardization, there are a variety of factors that a health system must take into consideration for this model to be successful.

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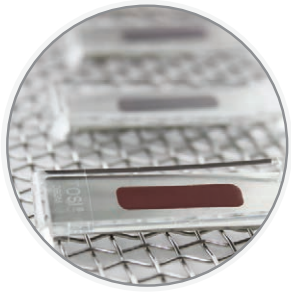

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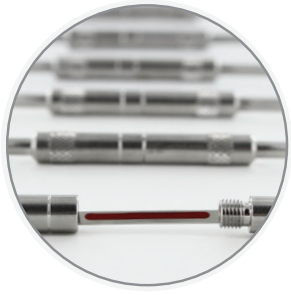
Reveal the hidden areas of instruments with the TOSI® washer test, the easy to use blood soil device that directly correlates to the cleaning challenge of surgical instruments. TOSI® is the first device to provide a consistent, repeatable, and reliable method for evaluating the cleaning effectiveness of the automated instrument washer.

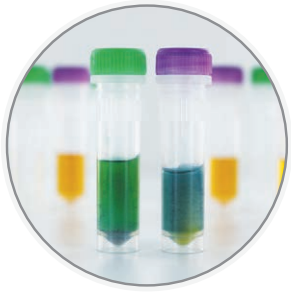


LumCheck™

The LumCheck™ is designed as an independent check on the cleaning performance of pulse-flow lumen washers. Embedded on the stainless steel plate is a specially formulated blood soil which includes the toughest components of blood to clean.

FlexiCheck™

This kit simulates a flexible endoscope channel to challenge the cleaning efficiency of endoscope washers with channel irrigation apparatus. A clear flexible tube is attached to a lumen device with a test coupon placed inside; the entire device is hooked up to the irrigation port of the endoscope washer.



HemoCheck™/ProChek-II™

Go beyond what you can see with all-in-one detection kits for blood or protein residue. HemoCheck™ is simple to interpret and indicates blood residue down to 0.1µg. The ProChek-II™ measures for residual protein on surfaces down to 0.1µg.

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Proactive planning

Redding cautions health systems to "look before they leap" into a change in reprocessing strategy and/or location, stating:

"It is imperative for health systems to conduct a detailed assessment of reprocessing operations to identify gaps, blind spots and risks for the organization. Too many times, we see health systems that can financially justify to centralize reprocessing services but lack the ability to operate like a system. Some of the factors to consider are: surgical volumes and geographic footprint, clinical expectations, organizational commitment and risk tolerance, instrument and tray inventory strategy, transportation infrastructure, workforce readiness, systems and work practices."

Frieze notes the importance of stakeholder engagement: "For facilities considering offsite processing, they should do a thorough risk analysis, and involve facilities management, SPD and infection prevention."

Stuart sees health systems today "taking a pause" and looking beyond their immediate CS/SPD needs to how they will address reprocessing for the next eight-to-10 years. In his experience, these are the health systems that have successfully centralized their sterile processing onsite or offsite.

"A big struggle in healthcare today is knowing how to forecast," said Stuart. "I have been in six new CS/SPD constructions and recent renovations that were five-year plans, and they are already struggling year two. I challenge health systems to expand their horizons to the 12–15-year mark and plan accordingly."

"This isn't something where you wake up one morning and decide to centralize," Stuart added. "It requires six-to-12 months of preparation and due diligence about the process to determine if it is the right solution for your facility."

As Crowe notes, a move to centralization provides the opportunity for the health system to evaluate and improve its CS/SPD processes and practices, including relationships between the CS/SPD department and clinical teams.

"The best piece of advice would be to really evaluate where your health system is before jumping into a centralization decision," she said. "Centralizing reprocessing can provide great benefits to the organization, but it can also work as an amplifier for any existing problems in your sterile processing department or in the relationship between the sterile processing department and surgical services without a good understanding of the preexisting realties of the departments and considered plans to make improvements as part of implementing the centralization."

Staffing models

The switch from individual hospital CS/SPD departments to centralized, offsite reprocessing operations will likely require the health system to reconsider traditional staffing models.

"Facilities are forced to do more with less, which can translate to centralizing processes to decrease the number of staff needed," said Elammari. "However, caution is necessary for these scenarios because this can cause burnout for the staff, which often translates to disengagement and quality issues."

Stuart says that, in his opinion, the "three-shift model" doesn't always meet the needs of today's onsite or offsite, centralized environment:

"I am starting to see more hospitals adopt stagger shift, but I am surprised at how many still have that three-shift model. There are benefits to looking at sterile processing from more of a manufacturing perspective and incorporating some of the tried-and-true technologies from manufacturing into the space. It's time to do that type of integration."

"Healthcare organizations are focused on patient care and the delivery of healthcare services, and are typically not experts in manufacturing," he added. "The shift to offsite is a departure from anything they have been exposed to in the past, and it's a huge investment from a financial perspective. Changes in the ability and speed to provide OR support should also be considered. Don't be afraid to seek assistance from people who have knowledge in the space."

Inventory management and storage

Because instruments and devices are being processed offsite, added time must be factored for transport to and from the facilities. In most cases, the health system must invest in additional inventory to help ensure clinicians have items when they need them.

David Phillips, Marketing Manager, Hänel Storage Systems, says health systems must also consider the risk for error when an offsite center delivers instruments for scheduled cases, and ways to minimize the risk, stating:

David Phillips

"Without proper inventory management, there is the risk of life-threatening errors, with the wrong surgical supplies potentially delivered to a hospital. If even one small item is incorrect, then the SPD is no longer located elsewhere in the same hospital but possibly across town. This problem can easily be solved by keeping a small supply of commonly used supplies and instruments onsite at all times, in case of mistakes."

When centralizing sterile processing offsite, Phillips says it becomes even more critical to efficiently retrieve supplies and required instruments trays according to the surgical schedule, so an entire day's worth of containers is transported to the corresponding hospital. At the end of the day, these materials are then returned for reprocessing. Phillips points to the Hänel Rotomat automated sterile storage carousel as an excellent solution. The Rotomat protects against dust, dirt and potential contamination, and tracks supplies as they are stored and retrieved, with the extra benefit of saving valuable floor space.

Trusted transport

When reprocessing is moved offsite, a major consideration is how to transport instruments and devices efficiently and safely between facilities. Hendee's CS/SPD department services multiple offsite locations, which has reduced practice variations greatly, but it has also created challenges in the form of transportation and delayed processing.

"We did not think about the transporter," said Hendee. "We considered the bins for transport, the vehicles, the DOT regulations etc. However, we did not think the transporter themselves would need any special training. That was until they picked up a load of sterile items and badly mishandled them. When the load arrived at the clinic, there were sterile items placed inside the biohazard transport container and a rigid container had been held by one handle, causing the instruments inside to poke holes in the filter. Once we explained the process fully and what was expected these issues went away but the fact that we missed this needed piece of training could have caused serious issues."

As Stuart points out, health systems that have centralized supply distribution in place typically have an easier time transitioning to offsite reprocessing, stating:

"Among health systems seriously considering a centralized, offsite model, about 70% have self-distribution in place. They already have trucks going to hospitals each day and courier services to serve clinics. That's an important factor to consider - for these organizations, transportation is not a new cost when they shift to offsite reprocessing."

When onsite makes sense

While there is a growing trend toward centralized and offsite reprocessing of reusable devices and instruments, there are some cases where onsite reprocessing is best for clinical care effectiveness, efficiency and safety.

"There are numerous factors that can influence where reprocessing is performed. Infection prevention, regulatory guidance, turnaround time, budgets, process efficiency, inventory management, and sustainability initiatives can all play a part," said Richard Radford, CEO, Cenorin.

Richard Radford

Frieze says healthcare facilities should consider maintaining even a small instrument processing department to handle their immediate needs and variations in schedule, adding:

"And always ensure that there is at least a supply of critical instruments and devices onsite, as well as trained, certified personnel to do the specific task. If all sets are processed offsite with limited resources at the individual facility, then there may be more opportunity for operating room (OR) delays for missing sets, those delayed in transport, and even more impetus to use IUSS sterilization instead of terminal processes."

For some devices today, reprocessing is performed not in CS/SPD departments but in other hospital areas, such as endoscopy labs, sleep labs and respiratory care departments, explains Radford. He adds how many of the reusable semi-critical medical devices processed in these areas are plastic and require a low-temperature high-level disinfection (HLD) process that is validated for such devices, such as a washer-pasteurizer.

"To balance factors, such as meeting current reprocessing recommendations (ST91:2021 updated March 2022, e.g.), managing single-use inventory, managing costs, and maximizing sustainable healthcare practices, healthcare providers need to consider switching to reusable plastics where appropriate and establishing a dedicated HLD protocol for these devices."

One device category where onsite processing offers significant advantages is ultrasound probes, according to Ken Shaw, President of Americas, Nanosonics. He notes how ultrasound is used in almost every healthcare department today for a range of invasive and noninvasive procedures.


Ken Shaw

"Given the high volume of ultrasound probes used in a healthcare facility each day, offsite reprocessing is not practical," said Shaw. "Instead, probes are usually reprocessed onsite, often in a central sterile service department or at point of care (POC). Technology has made HLD of ultrasound probes at POC possible, offering an option that integrates better into existing workflows than centralized processing."

Shaw says POC reprocessing can have significant time and cost savings for facilities across multiple areas:

- ***Inventory:*** It minimizes the number of probes in circulation and the turnaround time for reprocessing, meaning facilities do not need to expand probe inventories
- ***Logistics:*** Probe transportation is not required, saving time and eliminating the risk of cross-contamination from dirty transportation containers
- ***Staffing:*** Staff members that carry out ultrasound exams are also able to perform reprocessing, which negates the need for separate reprocessing staff
- ***Supplies:*** POC technologies do not require staff to wear extensive personal protective equipment (PPE) apart from gloves located in the examination room

Radford says a HLD reprocessing program for procedural areas should provide documentation down to the individual device, reprocess devices with a validated, sustainable, and materially compatible HLD technology, and facilitate thorough drying to a clinically dry state that helps assure safe reuse.

"Such a dedicated program can be established in any location and can help a system achieve a compliant and sustainable infection prevention protocol while also saving the healthcare system money," he added.

For those healthcare facilities considering a move toward POC reprocessing, Shaw says they need to ensure they have a method specifically designed for this approach. This means HLD technology that is:

- A closed system that mitigates risk of exposure to toxic vapors
- Designed for chemical safety and doesn't require mixing or dilution of chemicals
- Able to be integrated with existing point of care workflows **HPN**

SUBMIT YOUR QUESTIONS:
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Heavy trays, towels and moisture: Part 1

by Stephen Kovach

Q "On our heavy pans (e.g., total pans), we have always placed a surgical towel under them for protection and to reduce wetness in the trays. The linen company that we order towels from cannot guarantee lint free towels. What should we be using under heavy trays for moisture? We also noticed stains on the towels. Why is that?"

A This is a great question concerning tray liners. My experience has shown me there are many reasons for using a tray liner within/outside of a surgical tray or on a sterilization cart. They are for protecting instruments or reducing wetness in a tray. This will be a two-part series addressing how to solve moisture management and surgical towel issues in June, and we'll focus on staining problems found on the towels in July.

Medical device reprocessing staff use many different products as liners both for trays and sterilization racks/carts, such as a) laundered surgical huck towels used to wipe hands (e.g., white, green, blue, etc.), b) blankets, c) sterilization wrap cut to size, d) sterile purchase huck towels (reopened and used as liners), e) foam products, f) cellulose-based products, and other products.

Reasons I have seen for placement of these products are as follows:

- Liner inside a tray
  - Protect the instruments in the tray since the weave in the surgical trays can cause pointed or sharp instruments to get caught and cause possible damage.
  - Solve a wetness (pool of water or some amount of water) found in a tray after sterilization has taken place.
- Under a tray
  - Provide a padding (cushion) between the wrap and the tray.
  - Reduce tearing because of friction of movement of the tray.
  - Help solve wetness found in the tray after sterilization.
- Sterilization cart/rack
  - Reduce tearing of wrap (act as a buffer or protection between the tray and the rack/cart).
  - Help with dispersion of excess moisture caused during the sterilization cycle.

In my view, these are some of the factors; and I understand there are others, but I am going to address these specifically.

How do we solve wet pack issues (moisture management)?

AAMI ST79 has many sections and annexes that go into detail on understanding moisture management, loading sterilizers, and other guidance for tearing and moisture issues.

- "Annex O" has a helpful check list dealing with moisture management.
- "Section 8.2" talks about the use of tray liners: "…Tray liners designed and intended for sterilization may be used to protect instruments from damage and/or absorb moisture… absorbent tray liners can absorb condensation and reduce the incidents of wet packs…"[1]
- "Section 10.1" talks about:
  - *Loading the sterilizer and use of liners*: "... Cart shelf liners that have been validated for this purpose may be used and should be made of a non-linting, absorbent material that will dry in the drying time selected for the rest of the load. Follow the liner manufacturer's written IFU for use and replacement instructions. … non-linting, absorbent cart shelf liners can be helpful in drying a load. Non-linting materials are recommended because lint can be introduced into a patient's wound and cause a foreign-body reaction"[1]
  - *Positioning of items on the sterilizer cart and how it can cause issues*: "Placing metal items above textile items should be avoided…. placing metal items below textile items enables condensate to drain out without wetting other items in the load…"[1]
- "Section 10.1.2" talks about Paper-plastic pouches: "… Paper-plastic pouches should stand on edge in relation to the cart or shelf, with the paper side of one pouch next to the plastic side of the next pouch. Holding racks or baskets specifically designed for paper-plastic pouches may be used. . . ."[1]

The role of loading a sterilizer (and how those items are positioned within the load) is very important. In the November/December 2013 publication of *Pharmaceutical Engineering*, they stated the following:

". . . As a result, wet or damp items are observed at the end of the cycle. Wrapped items positioned so that condensate is allowed to collect will not be dried. Items should be positioned so that the condensate is allowed to flow downward. Items (wrappers, pouches, filters, or other porous biological barriers) that remain wet at the end of cycle cannot prevent contamination of the load when removed from the sterilizer. As the load cools outside the sterilizer, the water in the wrapper will be drawn into the wrapped item. Any contamination that is present in the environment can be drawn through the sterile barrier along with the water. There are numerous other possible causes for wet loads. The most common are:

"a. Insufficient drying vacuum level or time programmed.

"b. Rubber or plastic items in pouches (i.e., rubber stoppers, plastic tubing) may require additional drying (a pulsed air or heated pulsed-air drying process is recommended for these items).

"c. Wet steam.

"While there is no single solution to eliminating wet loads, it's likely that experimenting with drying time, repositioning items, reducing load density, modifying cycle settings, and investigating steam quality will resolve the problem…."[2]

As the old saying goes, "Look at everything as though you were seeing it for the first and the last time."

Should or could we (re)use surgical towels as tray liners?

Ultimately, surgical towels are meant for wiping hands and not intended for lining surgical trays. A surgical towel is a piece of linen capable of producing unwanted lint, and it should have documentation that it has been inspected for particles like hair and gone through a de-linting process. Also, most surgical towels are colored (e.g., green or blue) and can hide stains or issues with the sterilization process. Using a liner that is white can help when issues arise with steam quality. Thus, my advice is, whatever you use to line your surgical trays, whether it's for protection or reducing wetness, make sure the IFU states it can be used that way. **HPN**

June's moisture management and surgical towel issues have been resolved, but what about staining? Find out next month.

References:

1. AAMI. (2017). *ANSI/AAMI ST79:2017*. Association for the Advancement of Medical Instrumentation (AAMI).

2. Dion, M. & Parker, W. (2013, November/December). Steam Sterilization Principles. *Pharmaceutical Engineering*, n.p.

Frontline SP staff development promotes confidence, quality, satisfaction

by Julie E. Williamson

Much importance is placed on Sterile Processing (SP) staff development from a career ladder perspective to help technicians advance in their titles and responsibilities. Still, it's equally vital to help frontline technicians develop soft skills to advance their professionalism, increase their confidence, and help them better navigate various situations in their current roles.

"As we develop in this profession, I believe our next level of growth will revolve around professionalism, communication and the cultivation of skills that allows frontline staff to be considered professional technicians. There's a difference between being a technician and being seen as a professional," said Anthony Bondon, BSM, ASAE, CRCST, CHL, Central Sterile Processing Manager for HSHS St. John's Hospital in Springfield, Ill., during his April 26 educational session at the 2022 HSPA Annual Conference. He told attendees how SP leaders must value their technicians and their roles today, recognizing that some individuals may never aspire to become leaders but rather the best technicians they can be.

"The frontline staff are the people doing the work. Leaders must give energy and focus to these frontline employees and help them develop the right skills to handle situations that can occur daily in the department."

10 essential building blocks

Bondon shared 10 must-have skills that every SP leader should develop with frontline technicians to help them communicate better and deal with stressful situations most effectively and professionally:

1. **Creativity.** Frontline team members "need to be able to think outside the box and think on their feet," he said. When customers are coming at SP employees with difficult requests or demands, technicians need to use policies, procedures, standards, guidelines and other data to demonstrate that the SP team is doing the right thing.
2. **Confidence.** Technicians must be able to confidently deliver messages to their healthcare customers. "Leaders need to teach staff to be confident in their roles and knowledge. They can speak to the policies and procedures and why they are there for a reason and need to be followed. We need to fight [difficult situations] with the truth." Role playing is another effective strategy for helping technicians be prepared and communicate professionally when difficult situations arise.
3. **Problem solving.** Managers need to be open to teaching their frontline staff to talk about their ideas and solutions to problems. Bondon puts his employees on different teams, so they can share ideas—and before he makes a change in the department, he sits down with the team to discuss it. "Again, they are the ones doing the work, so we need to value their opinions and share ideas. That helps build their confidence in the process."
4. **Perseverance.** In healthcare, perfect practice is what makes perfect, Bondon stressed. Leaders must give their employees a voice and share with them their knowledge and things they've learned during their own leadership development training. This can be done during staff huddles and other teaching moments throughout the day. The more leaders and frontline staff members work together to develop skills that improve processes and professionalism, the better the outcomes and the more likely informal leaders will develop within the department.
5. **Competence/Focus.** When someone from the operating room demands their instruments right now and suggests that a step can be rushed or skipped, for example, Bondon said it's critical that leaders remind their teams to advocate for the patient by not caving due to pressure—instead leaning on the standards, guidelines, policies, instructions for use, and best practices.
6. **Communication.** SP technicians must have the tools and training to model professional behavior consistently and communicate effectively (verbally and non-verbally) with their teammates and customers. "This is not always easy because we work in a stressful environment, and some days will be better than others. But when the rubber meets the road and we're in a crazy workday, my team pulls together and gets the job done. We understand that the patient is our common ground."
7. **Constructive feedback.** This is a challenge for many, Bondon acknowledged, and overcoming it takes discipline and willingness to avoid getting caught up in personal own feelings. He encourages every staff member, regardless of experience and tenure, to speak up and question anything that seems incorrect. "But we need to be willing to take constructive criticism, too, if we're going to be the best we can be."
8. **Collaboration.** Across all shifts, the team must work together, share in the responsibility, and do whatever possible to steer the best practices and outcomes each day. "From first shift to second shift and second shift to third, it should be 'next man up,'" said Bondon, using a hockey analogy where one teammate jumps in immediately after another exits. "We all have days where we come in and face a giant—when we have 60 or 70 cases when we typically only have 35 or 40. But we all work hard as a team and collaborate to get the job done."
9. **Dedication.** Be dependable, say what you mean and be honest about the realities of what is possible, based on standards, IFU, best practices and policies and procedures. "When the pressure is on, technicians need to know that they must always be truthful for the sake of patient care."
10. **Accountability.** All team members' actions affect others. Leaders should help their frontline staff learn from their mistakes, without fear or embarrassment, and turn errors into positive teaching moments. When a team member makes a mistake, Bondon reminds the technician of the proper way and then may have them lead an inservice to help ensure the entire team understands the correct way and why it is important.

"These soft skills are coachable, teachable and necessary for our frontline staff," he said. "I implore all leaders to teach, share with and develop their frontline staff, so they can be the very best they can be right now." HPN

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June 2022
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For more information, direct any questions to *Healthcare Purchasing News* (941) 259-0832.

LEARNING OBJECTIVES

1. *Identify the "fantastic four."*
2. *Review the process of building a "fantastic four" team.*
3. *Recognize the importance of bringing awareness to broken processes.*

SELF-STUDY SERIES

The fantastic four

Sterile processing, operating room, quality and education

by Anna Castillo-Gutierrez

It is safe to say that Sterile Processing departments around the world have quickly evolved to one of the most complex departments in our healthcare arena. Technicians are expected to know and understand critical processes in each Sterile Processing area while maintaining basic infection control standards set by regulatory agencies, all while complying with individual hospital policies and procedures. All of this, not counting the multitude of IFU's that need to be followed daily for individual instruments, devices and equipment found within our department. It can be daunting and almost impossible without purposefully laying out a path to achieve quality results for each device we deliver to the operating room. So, how do we achieve this? How do we get to a point of awareness and be able to recognize flawed processes instead of individual errors? And finally, what resources are needed to get the ball moving in the right direction?

Call to action

The first step is to simply realize that every single process and staff member should be constantly reviewed, from the time of hire to the individual processes that are taken. Again, it may seem daunting, but you may have all the resources at your disposal already within your facility. You simply need to reach out and lay out a plan of action to bring awareness to issues that need to be addressed within your department and the four amazing groups that will help you achieve this are Sterile Processing leadership, Operating Room leadership, your Quality team and Education team. They all play a vital role in patient safety and therefore are responsible for ensuring processes are reviewed and updated as needed throughout all of the perioperative setting. So, let us talk about these roles and how you could bring your departments together to form a super-crew of experts ready to rectify and prevent errors one process at a time.

Sterile Processing leaders have a large burden to carry and depending on the hospital, may have multiple responsibilities they need to carry out daily; from setting schedules and ordering supplies to ensuring staff are following procedures and processes, they must inspect what they expect. One of the biggest tasks they are accountable for is coordinating the day-to-day tasks and assignments in the department that allow the operating room to complete surgeries and procedures without eventful instrument delays, errors, and issues. This coordination does not happen alone, there is often input from Operating Room leaders who provide needed information such as required loaners, special needs from surgeons and supply requests for each case. Perioperative navigation is definitely a team effort, each group responsible for a certain aspect and each aware of the major roles they play but there are two other groups who are often not used to their full potential.

The Quality and Education teams within the perioperative department are valuable resources you should never be without. Most of us know of the constant finger-pointing that can occur within periop, this is often due to having a telescopic view of an issue that is often one sided. We have all fallen prey to this and honestly, it's normal. Our Operating Room team may not be aware of the complex processes Sterile Processing must adhere to and vice versa, our Sterile Processing team may not know of the constant battle to beat time and care for the patient effectively. Experienced Quality and Educational staff who are knowledgeable of both processes and areas can offer an unbiased view of the issue at hand and offer solutions that benefit patient outcomes. These four teams, along with effective coordination and planning, can truly make a difference that keeps processes on the right path. So, how do you assemble this awesome team of genius minds and get everyone to participate?

Factual, collected data from errors derived from all areas can provide the

most compelling story of why this team should be assembled. Your Quality or Infection Control team may be able to pull information to paint a picture showing broken processes or gaps that could be easily prevented. At a minimum, this team should collaborate on a monthly basis and discuss issues openly in a safe environment. Each of the four teams should consist of at least one leader or staff member who is able to make knowledgeable decisions and communicate effectively. Issues, reoccurring problems and procedures with gaps or opportunities should be identified and written down to create a priority list. As a rule, the team should focus on one issue or project at a time and errors identified from a single person should be addressed by that staff member's direct supervisor. One way to identify gaps within periop, whether in the Operating Room or Sterile Processing department, is to perform audits that identify compliance issues related to a facility's policies, procedures and agency standards and regulations. Once you have a narrowed down priority list, identify which issue impacts patient safety directly and begin there. One thing to keep in mind; your priority list may seem long at first, but if you focus the team's attention to resolving one issue at a time you may find that other issues start to resolve themselves as a result.

Staff compliance

Focus on the processes and returning staff to a compliant state. It is reasonable to be concerned about whether staff will find a process easy to achieve or if staff will like a new process, but this group should ensure decisions are made based on best practices, compliance, and practicality. As the issue is discussed, bring awareness of what can be done to correct the issue immediately but ensure that all the gaps are filled in, so the issue does not return. For example, let us say that the Operating Room staff are not performing point-of-use treatment before transporting to the decontamination area. Specifically, staff are not spraying enzymatic detergent; a few questions that should arise are:

- Is the Operating Room supplied with the enzymatic spray?
- Who is responsible for restocking the supply when it is out?
- Who is responsible for treating the instruments during and after the procedure?
- Does your facility have a policy, procedure or guideline describing the care and handling of instruments at point of use? Is it easy to understand or has it been recently updated?
- Has Education addressed this issue?
- Is treatment skipped in certain services or rooms? Is there a pattern to this issue?
- If education has already occurred, is this an accountability issue or a process issue?

Having these kinds of questions answered together with the four teams present can bring awareness of the true reason staff may be uncompliant, if it is found to be an accountability issue the correct leader will be present to make corrections. I would like to add that most often I have found staff to be unaware of their facility's policies and procedures or the regulations concerning the issue, or they may have known of the policy, but roles were not clearly stated. Your Quality team can be the team who investigates the details of how and when errors occurred and deliver results back to the team so everyone can then bring ideas to the table. Once there is a clear action plan for correction, the Education team can begin to prepare the delivery of information or in-service.

It can be easy to get carried away by the presumptions that staff should be knowledgeable about the roles and responsibilities in their own job descriptions and the fact is that we all should hold ourselves accountable for our individual learning and progress in our careers. With that, there are always gaps, educational needs and updates in the healthcare arena. A single person or team alone cannot keep up with the ever-evolving changes in our industry, so as this heroic team of professionals dive deep into evaluating their departments, keep a few things in mind.

Keep ideas simple to understand and plan out how all staff and stakeholders will receive the information. A simple blanket statement or email from an Educator or Manager may work for a few staff but should never be considered absolute. Educators, fill in gaps and deliver information in a well-rounded and well thought out manner with the help of the Quality and Leadership teams. Sterile Processing and Operating Room leaders, be explicit about the actions you want staff to take, the outcome, goals and the expectations of what will happen if the expressed actions are not followed. In other words, level set the playing field for all and be sure everyone is aware of the roles and responsibilities each one of them have.

Education and training

Educators should present ideas in a manner that will capture the audience. Everyone learns differently, and some even require visual aids to capture concepts. The Sterile Processing Team leaders and Operating Room leaders should be present when these concepts, in-services and information are being presented. Nothing says, "this is important to me," more than a leader being present and voicing their concern on the topic.

Going back to the example where point-of-use treatment is not being performed, let us provide an example that shows how a program can be developed. We have already supplied the questions to investigate what can be impeding staff from spraying and wiping down instrumentation at the end of the case. I will propose that in this case, the facility has a policy that suggests the "scrub person" is responsible for point-of-use treatment. As the Quality and Education team start to investigate, it is noted that some staff understand that the scrub technician, not the scrub person, is responsible for spraying the instruments at the end of the surgical procedure. When asked what the process is when a scrub/surgical technician is not present in the case, and no one is able to identify who should be responsible, someone may suggest the PCT helping in these situations. It is observed that although there is a policy in place there needs to be education to describe the roles within it because we can all interpret policies in unique ways.

When putting together an in-service or training, plan around how the staff learn and how their processes actually work. Review processes to see if they are in fact achievable or easy to produce and try to eliminate obstacles that can impede staff from being compliant. For example, if the enzymatic solution is found only in certain areas of periop, why not suggest having them closer to surgical suites so staff do not have to waste time retrieving it? Some hospitals may not have sterile water listed on preference cards. How can staff stay compliant in flushing cannulated instruments during cases if the proper tools are not being supplied to them? It is more common to see that processes are broken rather than staff wanting to stay uncompliant.

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

One way to get staff onboard with an idea is elaborating on findings and results. If you can offer insight, share with staff. I often find divulging a bit of information can give staff a sense of importance or urgency for why a new concept or process needs to be developed. The more staff know and are a part of the process for change, the more staff are likely to remain compliant. You may even find new insightful information that may not have been known during initial investigations. Ultimately, you want staff to have skin in the game, so they feel they took part in the process early on and have a say in workflow processes.

Once the Quality team has investigated, the Sterile Processing and Operating Room leaders have planned the correction action and the Education team has delivered the information; it is now time to follow the most crucial step, maintaining compliance. The maintenance process in any quality program is often overlooked and is the reason some projects fall apart after all the hard work has been done. All four teams must be dedicated to supporting and sustaining the quality improvement project for it to reach its goal. If one team does not follow-up with staff to ensure progress is going in the correct direction, the results could lead to staff becoming overwhelmed with constant changes in processes, staff not being held accountable and low morale from another unsuccessful attempt to correct an issue. Staff should be provided with an opportunity to know how they are progressing, good or bad. A project can start to dwindle and disappear until there is no recollection of the change if a plan is put into place without supervision. The management of a project within this team should be shared and expressed cohesively, the staff should be aware that the final decision was made together to better the perioperative department as a whole.

Conclusion

From beginning to end, the process of building your Fantastic Four Team will take time, energy and focus to put together and start completing tasks. The goal is to get started and make progress for the entire perioperative department instead of simply addressing issues on a one-sided scale and truly use resources that are already available to you. I am more than certain that your Quality and Education team are ready to collaborate to reduce their workload and find solutions that actually work for everyone. As you start to reach out to your Operating Room leaders, Educators and Quality teams, keep in mind and make everyone on the team aware that these processes and projects may take time to assess, design, plan, implement and review for compliance. As you progress, take time to celebrate wins. Keeping patients safe in our hospitals is a big deal and feedback should be provided to staff to make them aware of the current progress they have contributed to.

Our roles as individual leaders in the perioperative setting have evolved throughout the years. Specifically in Sterile Processing, the department that was often discounted and left alone in the basement has now been known to be at the forefront of leading effective initiatives that impact patient safety. Continuing this trend, I believe and look forward to seeing innovative ideas come from the Sterile Processing department, but we absolutely cannot do it alone. Building effective and collaborative teams that bring awareness of broken processes and issues helps in resolving antiquated procedures that no longer work in our day-to-day workflows. All you need to do is reach out and build your own team of superheroes! HPN

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CONTINUING EDUCATION TEST • JUNE 2022

The fantastic four

Sterile processing, operating room, quality and education

Circle the one correct answer:

1. **Policies are the same in every hospital and staff should be aware of all of them.**
   A. True
   B. False
2. **Every single process and staff member should be constantly reviewed, from the time of hire to the individual processes that are taken.**
   A. True
   B. False
3. **The perioperative Quality Team can help in obtaining data related to known issues and errors within the operating room and Sterile Processing department.**
   A. True
   B. False
4. **The team of Sterile Processing and Operating Room leaders, Quality and Education should discuss issues openly in a safe environment.**
   A. True
   B. False
5. **Errors identified from a single person should be addressed and corrected by the team of Sterile Processing and Operating Room leaders, Quality and Education teams.**
   A. True
   B. False
6. **The Quality team is responsible for keeping staff accountable during projects.**
   A. True
   B. False
7. **Educators should present ideas in a manner that will capture the audience, in an easy-to-understand format.**
   A. True
   B. False
8. **Staff should be held accountable for following processes and leadership should not have to ensure processes are easily achievable.**
   A. True
   B. False
9. **The maintenance phase of a project is the most important part of the process.**
   A. True
   B. False
10. **You should never provide staff with feedback on the progress that has been made during a project. You should wait until the end of a project.**
    a. True
    b. False

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The approval number for this lesson is **3M-HPN 220605**.

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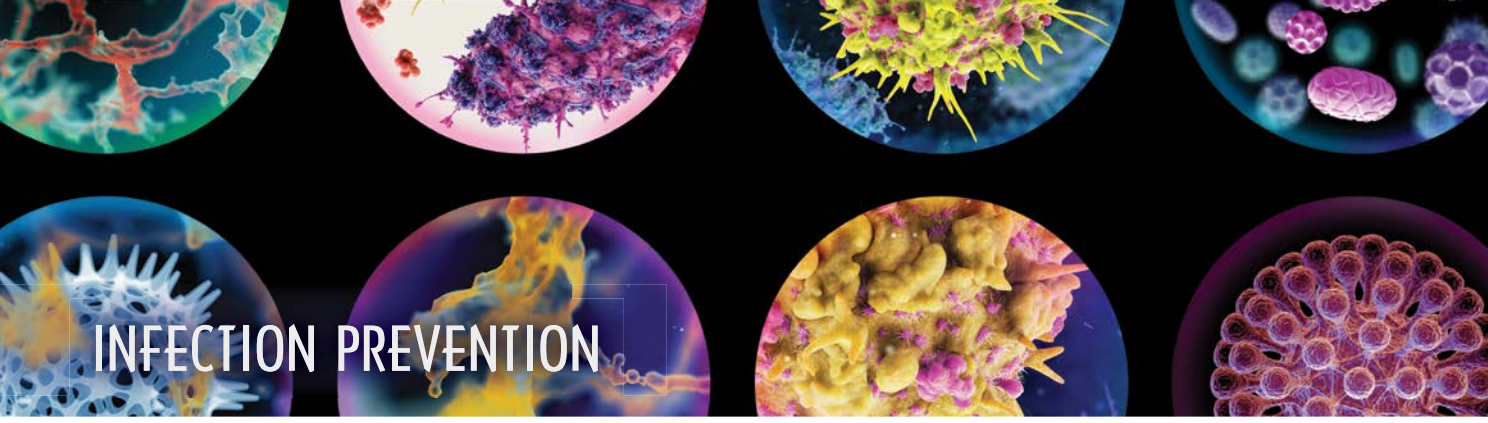

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COVID-19 recovery returns IP teams to holistic HAI prevention

2022 Infection Prevention Resource Guide

by Erin Brady

At the start of the COVID-19 pandemic, there was a heightened urgency to clean and protect.

With COVID receding, there is still a need for infection prevention. Other infectious agents, such as *Clostridioides difficile (C. diff)*, *Candida auris* (*C. auris*) and central line-associated bloodstream infection (CLABSI) did not go away.

With a smaller workforce and a stressed one, what is next? How do we ensure that infection prevention departments have what they need to achieve the highest standards?

Education is key

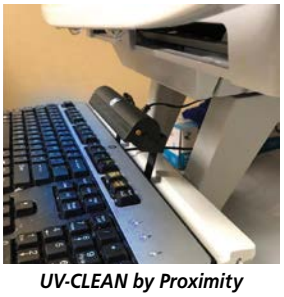
The biggest change in the post-COVID era is awareness, said Tristan Williams, Chief Technology Officer, Finsen Technologies. "Prior to COVID, infection prevention was focused on healthcare alone and was the preserve of dedicated specialists, now it is a much broader picture with a much bigger number of enlightened stakeholders. In addition to the awareness, there is more education available than previously, and this is enabling more technical and informed discussion. What has remained the same, is the human factor, specifically caveat emptor (buyer beware) as I have personally witnessed large purchases of completely unsuitable devices for the applications they are intended or tendered for."

Finsen Technologies told *Healthcare Purchasing News* that Finsen is focusing on education this year, particularly, the importance of proper floor disinfection using UVC. "This has been an aspect that we have found to be often overlooked and a simple process to integrate into everyday processes to optimize infection prevention measures," Williams said. "Optimization is key; understanding how each process or technology can overlap and streamline your processes, how the data from each technology can integrate with your management system, [and how to] ascertain [whether] the level of support from each supplier is suitable for your needs prior to purchase or integration."

PDI is concentrating on continuing education for new staff says Holly Montejano, PDI Clinical Science Liaison, MS, CIC, CPHQ, VA-BC. "There are many new nurses and infection preventionists in healthcare currently who may lack the broader skillsets to successfully do their jobs. With time and resources at a premium, educational offerings for these positions are being made available electronically and free of cost in the form of continuing education credits, which is beneficial to both nursing and infection prevention programs. Also, product-specific information available in electronic learning systems for frontline staff supports just-in-time education, as well as product use compliance."

Accessibility and infection prevention

The use of computers and other data collection devices in healthcare poses a unique challenge to infection prevention efforts, according to Steve Reinecke, MT(CLS), CPHIMS, Chief Scientist and Regulatory Compliance Officer, Proximity Systems. "It is proven that the faster we have access to information in healthcare, the better the outcomes, yet the data collection devices we are using, if not properly disinfected, can inadvertently be a conduit for patients and staff to become ill," Reineke said. "The computers at nurse's stations, patient rooms, and mobile carts, along with pumps and patient monitors are used 24 hours a day. They are rarely manually wiped down or disinfected and there is seldom training or documented procedures around the cleaning of these surfaces. Housekeeping, nursing and IT disputes over who is responsible for the computer workstation, pumps and patient monitor cleaning, with these surfaces being some of the dirtiest places in healthcare, contribute to the prevalence of healthcare-associated infections (HAIs) that lead to morbidity, mortality and excess healthcare expenditure."



UV-CLEAN by Proximity

Sarah Simmons, DrPH CIC FAPIC, Senior Director of Science, Xenex, emphasizes the issue of efficacy in new products, especially during the pandemic. "New products flooded the market during the pandemic, and many of them made wild claims about efficacy. I am hopeful that hospital decision-makers now have the time to ask for and review peer-reviewed articles about any technology they are considering," she said. "Ask the manufacturer to provide you with multiple peer-reviewed and published studies validating the efficacy of that specific device or system in a hospital setting that proves the technology works. Anecdotes and posters are not enough. If the technology hasn't been proven effective in multiple

peer-reviewed studies, then it hasn't met the bar of an evidence-based solution."

GOJO says that communication is key. "Showing healthcare facilities our control over key raw materials and components, walking them through our approach to redundancy and partnerships, and being open not just about what we can do but how, has been extremely helpful to our hospital partners," said Jaimee Rosenthal, Acute Healthcare Market Director, GOJO Industries.

"Open communication about our ability to satisfy their needs for these critical infection control products lets healthcare facilities focus on what's most important – the health and safety of their staff, patients, residents and visitors," she said.

Hand hygiene coaching moment from GOJO

Then and now; Lessons learned

Holly Montejano, PDI Clinical Science Liaison, MS, CIC, CPHQ, VA-BC, quoted an article from the *Journal of Infectious Diseases* entitled, "History of infection prevention and control," stating: "The acute care setting saw the inception of the infection control professional in the 1950s because of a nationwide healthcare-associated *Staphylococcus aureus* epidemic."[1]

"Now, infection preventionists wear many hats within a facility, working with internal stakeholders to ensure policies and procedures are being followed to keep patients safe and infection free," Montejano continued. "The pandemic has highlighted issues that arise when these programs are not in place, particularly along the continuum of care, such as long-term care facilities. Given the collateral damage the pandemic has caused (in terms of HAI increases, staff shortages, staff burnout), infection prevention programs are an imperative healthcare initiative that helps provide patient safety guidance and ensures compliance with best practices," Montejano said.

Doe Kley, Senior Infection Preventionist, Clorox Healthcare, stresses the importance of learning from the past and applying it to future practices. "Early in the pandemic, before much was known about COVID-19, inside and outside of healthcare facilities implemented extreme cleaning and disinfecting. This subsided as we learned more about the virus and how it is transmitted. However, it is important to apply the lessons learned and is an opportune time for Infection Preventionists (IPs) and Environmental Services (EVS) to continue to collaborate and assess if the cleaning and disinfection procedures they have adopted throughout the pandemic still serve the facility's needs and meet regulatory requirements," she said.

Kinnos CEO, Jason Kang, maintains that having a documented and formalized infection prevention program is critical because it requires a coordinated approach across multiple departments where each stakeholder understands their role and the right products and processes to implement.

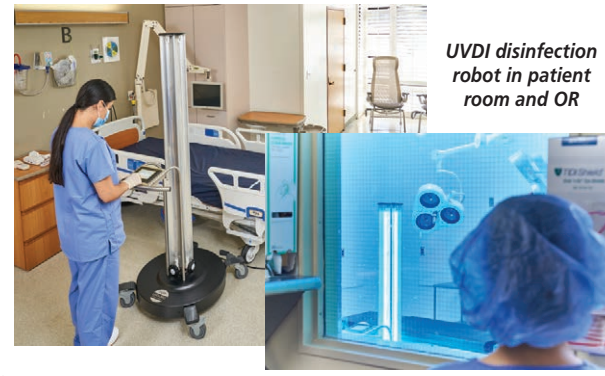
Kinnos notes that their Highlight for Bleach Wipes are experiencing an elevation in demand. The company claims that the additive for bleach wipes tackles the key pain points of quality, training and patient engagement.

Kinnos Highlight disinfectant tint for wipes

"Respectively, these demands have been driven by labor shortages and high staff turnover rates, rising HAI rates, and COVID impacting patient perception of cleanliness and safety in healthcare facilities. Post-COVID, we have seen an emphasis on initiatives around patient safety and engagement. While our Highlight product has been used to achieve significantly better disinfection quality scores, as a result of COVID, hospitals are now also using Highlight to engage with patients and improve HCAHPS scores," Kang said.

Protect your staff

Staffing shortages are very real and placing a continued strain across all healthcare



UVDI disinfection robot in patient room and OR

personnel, said Peter Veloz, Chief Executive Officer, UVDI. "Products that are simple to train on and use are critical; products that fit into workflow versus disrupting it. Fundamentally, the challenge remains the same; Infection Preventionists and Environmental Services are tasked with 'doing more with less.' So, the critical question for manufacturers is for product design to enable efficiency while still delivering effective performance. The UVDI-360 Room Sanitizer can be operated in just a few taps on its large, multilingual, color touchscreen – or remote control – and can disinfect a typical-sized patient room in just 10 minutes," he said.

Labor shortages can cause lapses in proper hand hygiene protocol, said Deborah Chung, North America Marketing Manager, Healthcare, Professional Hygiene, Essity. "According to survey results from a 2021 survey conducted by Essity, 90% of respondents believe that increased cleaning and sanitizing is important in hospitals and healthcare facilities. Additionally, 84% of respondents reported intending to continue the enhanced hygiene practices they adopted during the pandemic, which provides evidence that boosted hygiene habits developed due to COVID are not going away. This makes access to trainings like the Tork Clean Hands Training, that support hand hygiene compliance, more important than ever."

Tork Clean Hands Training from Essity

Protecting staff from infection with proper personal protective equipment (PPE) is also important. Onyx Medical manufactures a face shield called Drape-U, to protect wearers from splash exposure.

"Most departments are at risk from exposure to COVID or other aerosolized pathogens. As an *AJIC* study[2] details, standard shields without barrier fabric do not protect well enough against splash exposure," said Roger Machson, Owner, Onyx Medical.

Drape-U face shield from Onyx Medical

The pandemic didn't create staffing issues, but it did make them significantly worse, according to Sharon Ward-Fore, BS, MS, MT(ASCP), CIC, FAPIC, Metrex. "Healthcare personnel have been overwhelmed with sickness and death during this pandemic. We should all be grateful for their sacrifice and commitment to helping people get well, sometimes at their own expense. The strategies put in place to mitigate spread – hand hygiene, masking, social distancing, and vaccination – are public health tools that can make a difference and save lives. Let's not forget them."

HAIs did not go away...

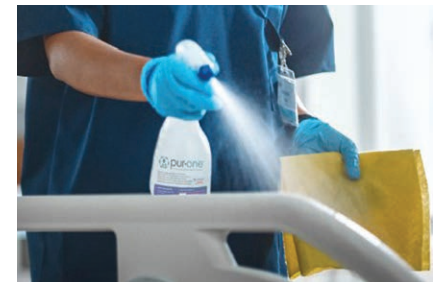
Candida auris is on the rise, according to Maryalice StClair, Chief Commercial Officer, Halosil. "Although clinical cases are still limited to a relatively few number of U.S. states, IPs are well aware that this infection is a growing threat. And of course, our long time nemesis *C. diff* is still an HAI that continues to be a cause of concern for IPs."

PDI contends that the diversion of resources and lack of colonization screening during the pandemic has allowed *Candida auris* to flourish across the continuum of care, according to Montejano.

"One of the biggest challenges facing infection prevention is the uptick in healthcare-associated infections (HAIs) due to shifting priorities during the pandemic. As infection prevention resources had to be diverted for COVID-19 patients and product availability was problematic due to supply chain issues, this unfortunately led to some evidence-based best practices falling to the wayside. As a result, infection prevention initiatives suffered. Now, many facilities are taking a back-to-basics approach with their HAI prevention bundles, revisiting compliance with the interventions included in those bundles via education and auditing," she said.

A newer element to the CLABSI and surgical site infection (SSI) prevention bundles includes nasal decolonization she continued. "This intervention using an iodophor-based product has been shown to be beneficial in HAI prevention research and is included as a recommendation in both the Centers for Disease Control and Prevention (CDC) Strategies to Prevent Hospital-onset *Staphylococcus aureus* Bloodstream Infections in Acute Care Facilities[3] as well as the updated AORN Skin Antisepsis Guideline."[4]

EvaClean shared their success with how their PurExcellence Program made a difference in a Massachusetts hospital, where they reduced the number of cleaning chemicals from eight to one. Mikayla Lambert, Inside Sales Representative,



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EvaClean Infection Prevention Solutions by EarthSafe, reported that,"The data was also used to design customized protocols and targeted education to improve cleaning processes facility-wide. The hospital's last documented *C. diff* case was in September 2021, and, since implementing the PurExcellence Program in October 2021, zero EVS related *C. diff* cases have been reported."

Williams from Finsen warns us to "keep an eye on the changing landscape," stating, "chlorine resistance is becoming a real concern with multiple papers illustrating this (especially for *C-Diff*) and this highlights that manual cleaning alone is simply not enough anymore for healthcare facilities and anti-microbial stewardship is an imperative responsibility for us all."

Karen Hoffmann RN, MS, CIC, FAPIC, FSHEA, recommends using a ultraviolet germicidal irradiation (UVGI) system to purify air. "Rather than relying on the least effective control measure, i.e. appropriate wearing of masks, healthcare facilities should implement more effective administrative engineering control like better ventilation that can protect everyone in the room continuously."

Kalvin Yu, MD, FIDSA, Vice President of U.S. Medical Affairs, BD, stressed the importance of having resources to battle antimicrobial resistance (AMR). "Capabilities that aim to identify the most appropriate and timely use of antimicrobials with the goal of containing and reducing AMR are more important than ever – particularly as health systems manage seasonal healthcare needs in tandem with COVID-19.

Priority capabilities should include:

- Supporting infection control guidelines through products and services designed to help clinicians improve patient outcomes through the standardization of care.
- Expanding diagnostic testing to classify infections and guide therapies – helping clinicians to implement effective antimicrobial stewardship interventions.
- Advancing medication management through a connected medication management system with technologies, analytics, and surveillance tools to ensure the appropriate utilization of medications," he said.

During this 'return to normalcy,' Infection Preventionists cannot simply return to normal. Rather, they must champion the best practices that define their trade. According to Alice Brewer, Senior Director, Clinical Affairs, PDI, "Back to basics does not mean that Infection Preventionists are not doing their jobs or have forgotten how. It is an understanding that we need to shift away from the emergency or pandemic mindset and resume routine evidence-based interventions and strategies. Now is the time to return to best practices and seize the opportunity to evaluate new products, technologies, and procedures to help combat rising rates of HAIs and ensure we are prepared for potential future outbreaks."

Veloz, UVDI, reminds us that, "We have emerged through the pandemic's darkest days, let us remember that brave healthcare professionals continue to selflessly work every day to keep us all safe from the threat of antibiotic-resistant organisms and infections. Their commitment is steadfast and it is more important than ever to thank them." **HPN**

Visit https://hpnonline.com/21267376 for references.

References:

1. Torriani, Francesca, and Randy Taplitz. "History of infection prevention and control." Infectious Diseases (2010): 76.

2. Ofstead CL, Hopkins KM, Smart AG, Brewer MK. Droplet dispersal in decontamination areas of instrument reprocessing suites. Am J Infect Control. 2022 Feb;50(2):126-132. doi: 10.1016/j.ajic.2021.10.023. Epub 2021 Dec 2. PMID: 34865859.

3. https://www.cdc.gov/hai/prevent/staph-prevention-strategies.html. Accessed May 9, 2022.

4. https://www.aorn.org/about-aorn/aorn-newsroom/periop-today-newsletter/2021/2021-articles/ssi-prevention-bundle. Accessed May 9, 2022.

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[1]Anderson, D., et al (2018). Implementation Lessons Learned From the Benefits of Enhanced Terminal Room (BETR) Disinfection Study: Process and Perceptions of Enhanced Disinfection with Ultraviolet Disinfection Devices. Infection Control and Hospital Epidemiology. 39(2):157-163. doi: 10.1017/ice.2017.268

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Last of a two-part series

Have surgical infection rates decreased with the addition of modular instruments?

by James Schneiter

In Part I of this two-part series we looked at how a number of surgical instrument companies introduced "modular" instruments that could be disassembled for internal cleaning during processing. The concept was intended to reduce the risk of a surgical infection caused by an instrument that remains contaminated with bioburden and debris after processing.

The manufacturers of modular instruments claim that once you've disassembled an instrument, you can visualize the bioburden inside of the instrument and manually remove it during processing. As was explored in Part I, the human eye is NOT capable of seeing microscopic bacteria and biofilm on the surface of a surgical instrument. Both AAMI and the Healthcare Sterile Processing Association (HSPA and formerly IAHCSMM) have long been aware of the limitations and dangers of relying on "visual" inspection to insure the removal of bioburden and debris from instruments during processing.

AAMI's ST 79 on cleaning IFUs clearly states, "Visual inspection alone may not be sufficient for assessing the efficacy of cleaning processes." ST79 goes on to state, "The use of methods that are able to measure organic residues that are not detectable using visual inspection should be considered in facility cleaning policy and procedures."[1]

HSPA points out in its CRCST Self-Study Lesson Plan, "Understanding Biofilm," "Even with the use of most visual enhancing tools, microorganisms will still not be seen. To help solve this problem, tests have been developed to help verify that cleaning quality standards have been attained. These tests include protein tests and adenosine triphosphate (ATP) bioluminescence tests, both of which test for residual soils, and which might also be suggestive of biofilm formation."[2]

As followers of #IFU*can* have learned, the only way to ensure clean, sterile, moisture-free surgical instruments on every processing cycle is only to use instruments whose cleaning and sterilization IFUs have been validated using AAMI and FDA testing protocols. Presently, there is no brand, make or style of modular instruments available whose cleaning and sterilization IFUs have been validated using AAMI and FDA validation testing protocols.

The personnel at The Joint Commission (TJC) have also been very concerned about the problems associated with reprocessing modular instruments. Their concerns start in the O.R. where pre-treating at point-of-use prior to transport is often lacking, or simply non-existent. TJC was so concerned that in January 2011 the organization revised the guidelines for its inspection teams in the operating rooms.

Specifically, the revised TJC guidelines read as follows:

Point-of-use preparation:

"Some typical point-of-use shortcuts that have been observed in operating rooms are: Not unlocking instruments; not disassembling instruments; not wiping off gross material and body fluids during procedures; not moistening or pre-treating instruments before transporting them for sterile processing; and not returning instruments to their proper containers."[3]

Based on TJC's January 2011 inspection guidelines, it is obvious that the failure of O.R. personnel to disassemble and manually prepare modular instruments for transport is a major concern/problem. An even greater concern/problem exists once modular instruments arrive in CS/SPD for decontamination, cleaning and sterilization if they are not properly disassembled, cleaned and properly reassembled.

One of the many problems with modular instruments is that most are not labeled as "modular," and as such O.R., CS and SPD personnel don't disassemble them for processing. In fairness to O.R., CS and SPD personnel, most modular instruments look just like conventional, non-modular instruments. When modular instruments are not disassembled during processing, bioburden and debris quickly accumulates within the instrument. This accumulation of bioburden and debris can increase the risk of a surgical infection caused by the contamination that remains trapped inside of the instrument.

Another significant problem with modular instruments that are re-assembled prior to sterilization is that residual moisture can remain trapped inside of the instrument after the sterilization cycle. This greatly increases the risk of an instrument contaminated with waterborne pathogens being returned to surgery. To avoid this problem, you should only use instruments whose sterilization IFUs have been validated to return moisture-free instruments after the sterilization cycle. This significantly reduces the risk of a surgical infection caused by water-borne pathogens and it also reduces the potential for rust to form within the instrument.

Next to infecting a patient with a contaminated instrument, the second most important concern for the surgeon is the tactile feel and response of the instrument coupled with the bite force that can be applied to the jaw. To be easily disassembled and reassembled, modular instruments are not built with the same tight tolerances that conventional, non-modular instruments are built to. That is why no modular design will ever be able to match the tactile feel, response and bite force of a conventional, non-modular surgical instrument.

In summary, there are no studies that document lower infection rates with the use of modular instruments. Additionally, there are no brands, makes or styles of modular instruments whose cleaning and sterilization IFUs have ever been validated using AAMI and FDA validation testing protocols.

Given the time and effort required to manually decontaminate and clean a non-validated modular instrument (several minutes) vs. a simple flush with a conventional, flushable instrument (several seconds) whose IFUs have been validated, you have to question why a facility would continue to purchase and use non-validated modular instruments. If your facility isn't using instruments whose cleaning and sterilization IFUs have been validated using AAMI and FDA validation testing protocols, you have no way of insuring clean, sterile, moisture-

free instruments for every patient, every time! HPN

References

1 AAMI's ST 79; 2017 "Comprehensive Guide to Steam Sterilization"

2 HSPA's CRCST Self-Study Lesson Plan, "Understanding Biofilm"

3 The Joint Commission inspection guidelines for "Point-of-use preparation," (www.jointcommission.org)

Prior to his retirement in December 2018, James Schneiter had been the founder, owner and president of America's MedSource Inc., which designed, developed, licensed and marketed a variety of implantable vascular devices, laparoscopic devices and neurosurgical instruments. Schneiter has nearly five decades of experience in medical device design and production, is a recognized expert in instructions for use (IFU) and independent laboratory IFU validation studies and is a co-founder of #IFUcan, an online community that examines and explores the world of manufacturer IFUs. Schneiter can be reached at jas.schneiter@talloaks2014.com.

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Duke documents the value of UDI

by Karen Conway, Vice President, Healthcare Value, GHX

When the U.S. Food and Drug Administration UDI rule was first published in 2013, the agency listed numerous benefits from the use of unique device identifiers (UDIs) to identify medical devices. As a reminder, the rule requires that UDIs be assigned to medical devices at each packaging level, that the identifiers be displayed in both machine and human readable form on the label (and in some cases the device itself), and that the UDIs and additional data be submitted to the FDA's Global UDI database (GUDID). The published benefits focused primarily on improving post market surveillance and patient safety through:

- Fewer medical errors
- Improved ability to identify adverse events and respond to recalls
- Data on how products perform in routine clinical practice

The rule also spoke to how standard identifiers support the ability of the multiple IT systems used in healthcare to share and manage device data, which, the agency said, would help improve communications related to device safety with health systems and patients.

More recently, an open access, peer-reviewed paper[1] documented additional clinical, financial and operational benefits realized by three hospitals in the Duke University Health System as the result of a "comprehensive implementation of UDI-based device and supply information management" in its cardiac catheterization (Cath) and electrophysiology (EP) laboratories. Specifically, Duke achieved:

- Greater supply chain efficiency
- Reduced clinician burden and documentation errors
- Better recall response
- Fewer rejected charges
- More effective inventory par level management

The paper outlines how other hospitals can follow suit and achieve similar benefits. Although a worthy pursuit and well documented by the authors who were personally involved in the effort at Duke, although in my opinion, the most important message is that achieving value from the UDI rule is highly dependent upon hospitals and healthcare systems incorporating UDIs across multiple clinical, operational and financial IT systems and processes, and that it can and should be done. Unfortunately, the UDI regulation only mandates action by suppliers, with only limited requirements from other government agencies for certified electronic health records (EHR) vendors and hospitals to capture and share UDIs related to devices implanted in patients.

Yet, the question remains: If these benefits can be achieved with a relatively quick return on investment (ROI) as demonstrated by the Duke team, why aren't more hospitals and healthcare systems taking advantage of the UDIs?

The paper provides some answers to these questions through its successful use of approaches from the domain of implementation science, which studies methods to increase adoption of evidence-based practices in routine clinical care. The Duke team recognized that achieving value for multiple stakeholders, e.g., clinicians, supply chain, and finance, also requires open communication and intense engagement by those stakeholders in the process. Through their involvement, those stakeholders could see the interdependencies related to their respective use of UDIs. For example, by using scanners to capture UDIs at the point of care, Duke was able to record supply usage for multiple purposes, including procedure logs and reports, patient records, charge capture and billing, and inventory management. This not only reduced the documentation burden on clinicians, but it also enabled real time expired inventory alerts and faster response to recalls. More consistent charge capture and better par level management generated $600.000 in annual revenue recognition for the Duke System. Give inflationary pressures and staff shortages, these savings in both time and money can help support the ability of hospitals to allocate finite resources to where they are needed most, the delivery of value to patients. At the same time, value to individual stakeholders is critical to sustained adoption of change. Both clinical and inventory staff noted they would abandon the new workflows if they required more work or were deemed unreliable.

While Duke's success is notable and exemplary, getting multiple stakeholders, processes, and systems aligned can be highly complex. The paper outlines the process from strategy and planning to technology build and deployment. Admittedly, the Cath and EP labs were chosen in part because the barcode scanning at the point of use is easier than in the operating room, although the steps followed provide a roadmap for successful change elsewhere. After gaining executive approval, Duke studied current work and data flows and identified the process changes and the interfaces required to support the capture and use of UDIs across core IT systems. Stakeholders were given the opportunity to express how they would like to interact with the system. In addition to extensive testing to make sure the system worked as intended and consistently, Duke ensured stakeholders had the training and education to support the transition.

Yes, it was a complex undertaking, but the process and ROI was not long (less than a year for Duke). True, Duke had some of the necessary pieces in place, including a robust enterprise resource planning system with a highly curated item master, both of which most hospitals and health systems recognize as foundational to effective supply chain operations. A single EHR and cardiovascular reporting system across all three hospitals was another important success factor, as well as something many health systems are also pursuing.

The move to a value-based healthcare system requires more integration across clinical, financial and operational domains, which is foundational to effective use of UDI[2] and a clinically integrated supply chain.[1] With more than $40 billion spent annually by hospitals on medical devices and supplies, understanding how these supplies and associated expenditures impact the quality and efficiency of care delivery and the financial impact on patients, hospitals and the healthcare system as a whole is critical. UDI provides the common language and source of truth to create that more holistic understanding and ability to deliver enhanced value. **HPN**

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