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May 2021 • Vol. 45 No. 5

HEALTHCARE PURCHASING NEWS®

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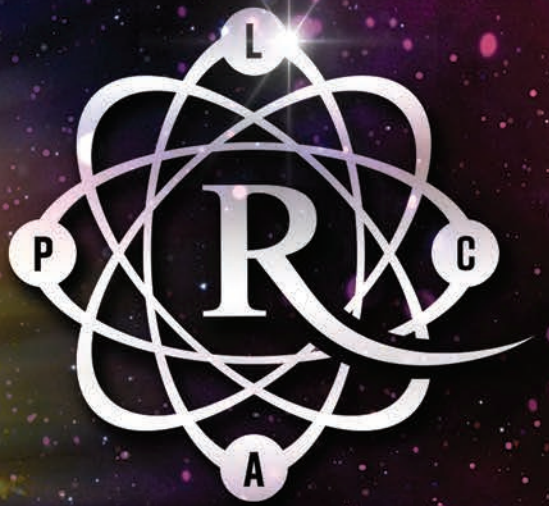

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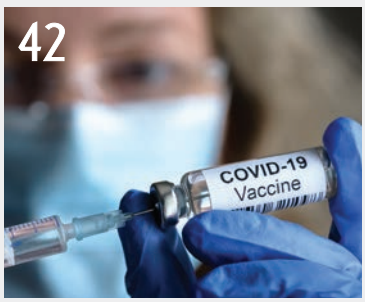

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GETINGE

DAUNTLESS
Toon'd in

While neither the pandemic nor conscientious efforts to overcome it are nothing to laugh at, two recent editorial cartoons humorously depict the twin challenges we all face.

The first, from mid-January – by cartoonist John Cole in *The Times-Tribune* of Scranton, PA – lampoons the vaccine distribution challenges. Cole borrows from Warner Bros.' Looney Tunes characters Road Runner and Wile E. Coyote in mid-chase just before the climax. The Road Runner, shown as a COVID-19 germ (green orb peppered with red pointy spikes) speeds toward what appears to be the darkened opening of a cave with "Distribution Glitches" painted above. Meanwhile, Wile E. Coyote remains in hot pursuit, dressed as a physician and straddling a rocket-powered syringe labeled "Vaccine" on the side of the barrel.

If you're fans of or familiar with this cartoon duo, you know what likely happens next. The "COVID Runner" will zoom through the cave entrance and a nanosecond later Dr. Coyote will collide with what turns out to be a dark paint spot on the cave and explode.

The second, from mid-March – by cartoonist John Darkow in the *Columbia Missourian* – illustrates Dr. Fauci taking the family on a road trip in a mid-1950s era tail-finned station wagon with suitcases stacked atop the luggage rack. On the highway, the green sign overhead reads "Normal" in white letters with an arrow pointing forward. Meanwhile, all the kids (seemingly representing impatient and irascible American citizens) in the back seats repeatedly ask Dad Fauci that one question all parents dread on road trips: "Are we there yet?" To which Dad Fauci endlessly replies in exasperation, "No!"

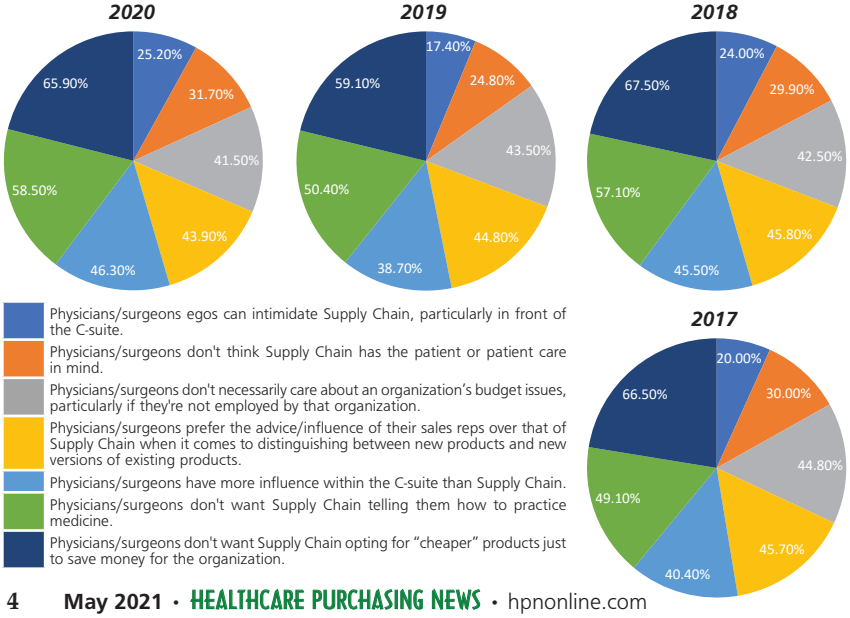
We chuckle and chortle about these clever and witty observations, but they really serve as a condemnation for our pre-pubescent and adolescent behavior – particularly the second cartoon.

American citizens accurately are shown as churlish, selfish, short-sighted children with limited attention spans and a predilection to avoid, sidestep, skirt or even rebel against common sense recommendations and human decency. What an inconvenience it is to cover your mouth during a sneeze, wash your hands, wear masks, stay six feet apart or even stay home for a year. How dare the government and clinical authorities deny our right to roam, subvert our freedom to intermingle physically and party with others. Why don't we have a pill, a powder, a spray or an app to take this away once and for all?

Are we prepared – or preparing – for the next pandemic? Not likely. We're too obsessed with "returning to normal," blinded by our tunnel vision.

DATA BANK

What are some of the challenges that Supply Chain has in working with physicians/surgeons?



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FAST STATS

CDC COVID-19 variants, cases and vaccinations tracking

B.1.1.7

is the most common variant of the SARS-CoV-2 virus circulating in the United States and has been reported in all 50 states, the District of Columbia, and Puerto Rico.

5

variants of concern in the United States are being monitored by the CDC; none of the variants circulating in the United States are classified as variants of high consequence.

27.2%

of COVID-19 cases in the United States were estimated from early March data to have been caused by the B.1.1.7 variant.

9.1%

of the proportion of cases are estimated to be caused by the B.1.429 variant.

4.3%

of the proportion of cases are estimated to be caused by the B.1.427 variant.

0.5%

of the current COVID-19 cases are estimated for both the P.1 and B.1.351 variants.

14TH

of December 2020 is when the US COVID-19 Vaccination Program began; 174.9 million vaccine doses have been administered as of April 8, 2021.

112.0 MILLION

people, or 33.7% of the US population, are estimated overall to have received at least one dose of vaccine.

66.2 MILLION

people, or 19.9% of the US population, are estimated to have been fully vaccinated.*

*People who are fully vaccinated (formerly "receiving 2 doses") represents the number of people who have received the second dose in a two-dose COVID-19 vaccine series or one dose of the single-shot J&J/Janssen COVID-19 vaccine.

Note: Data collected on 4/12/21.

Citation: COVID DATA TRACKER WEEKLY REVIEW, Updated Apr. 9, 2021, Interpretive Summary for April 9, 2021, https://www.cdc.gov/coronavirus/2019-ncov/covid-data/covidview/index.html

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NEWSWIRE

IAHCSMM Board of Directors announced

The International Association of Healthcare Central Service Materiel Management (IAHCSMM) announced the election results for four Board of Director positions.

Marjorie Wall, MLOS, CRCST, CIS, CHL, CSBB, Director of Sterile Processing for Kaiser Permanente in Downey, California, has been elected as the Association's next President-Elect. She will serve consecutive one-year terms as President-Elect (2021-2022), President (2022-2023) and Past President (2023-2024). Wall previously served a two-year term as a Director on the IAHCSMM Board (2019-2021).

Joining Wall are the following three new Directors, all of whom will serve a two-year term (2021-2023): Arlene Bush, CRCST, CIS, CHL, CER, Systems Educator for Sterile Processing and Quality Auditing for AdventHealth Central Florida Division in Orlando, Florida; Tracy Davenport, BHA, CRCST, CIS, CHL, Manager of Sterile Processing (Operations) for Northside Hospital Atlanta (Georgia); and Alison Sonstelie, CRCST, CIS, CHL, Sterile Processing Lead Coordinator for Sanford Health in Fargo, North Dakota.

"It is a privilege to welcome each of these new members to the IAHCSMM Board of Directors," said IAHCSMM Executive Director Susan Adams, BS, CAE. "Each brings to the IAHCSMM Board their rich professional experience and strong dedication to the Sterile Processing discipline, which will lend itself well to supporting the Association and the needs of our growing membership."

The new Board members will take office on May 1, 2021.

FDA warning on infections associated with reprocessed urological endoscopes

The U.S. Food and Drug Administration (FDA) alerted healthcare providers, including those working in reprocessing units in healthcare facilities, about the risk of infections associated with reprocessed urological endoscopes, including cystoscopes, ureteroscopes, and cystourethroscopes, used for viewing and accessing the urinary tract.

The FDA has received numerous Medical Device Reports (MDRs) which describe patient infections post procedure or other possible contamination issues associated with reprocessing these devices. The FDA is currently investigating the potential causes and contributing factors associated with the reported infections and contamination issues. While some reports indicate possible inadequate reprocessing or maintenance issues (for example, device failed leak testing) as a potential cause, the FDA is also evaluating other potential issues, including reprocessing instructions in the labeling and device design.

The FDA is emphasizing the importance of following the manufacturer's labeling and reprocessing instructions for these devices, including accessory components, for cleaning and subsequent processing to minimize the risk of infection.

Cystoscopes, cystourethroscopes, and ureteroscopes are used by healthcare providers to provide visualization and operative access during diagnostic and therapeutic endoscopic procedures of the urinary tract (e.g., urethra, bladder, ureters, and kidneys), depending on the intended use and design of the device.

Since 2017, the FDA has received over 450 MDRs which describe patient infections post procedure or other possible contamination issues associated with reprocessing these devices. In those reports which provided the name of the device manufacturer, either Olympus Corporation or Karl Storz were cited.

However, the FDA has not concluded that such risks are limited to a particular manufacturer's devices nor that any specific manufacturer or brand of these devices is associated with higher risks than others. Of these reports, there were three death reports which occurred outside of the United States, submitted by Olympus Corporation. The three reports describe patients who developed Pseudomonas aeruginosa infections post procedure.

Two of the death reports were associated with the use of a forceps/irrigation plug (MAJ-891), which is an accessory component used to control water flow and enable access to the working channel of the endoscope. It was reported by Olympus that the isolates from clinical samples matched strains of Pseudomonas aeruginosa isolated from the forceps/irrigation plug (MAJ-891). The third patient death involved a cystoscope, and the report noted that the cystoscope did not pass a leak test. Failure to pass a leak test indicates the cystoscope was damaged and could be a potential source of infection. It is unknown whether or to what degree the reported infections contributed to the patient deaths, and patient co-morbidities may have been a factor.

The potential causes and contributing factors associated with the reported infections or contamination issues are under review, including reprocessing methods, reprocessing instructions in the labeling, and device design. HPN

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From page 6

Supporting each other through the pandemic

by Nancy Anderson, Associate Executive Director, SMI

SMI members, all executives from leading healthcare provider and industry organizations, weighed in recently on the subject of individual and team morale and how suppliers and providers can best support each other as we continue to grapple with this pandemic. Data was gathered equally from suppliers and providers and showed that morale is relatively high, with respondents rating their own personal morale a bit higher than they rated the morale of their teams:

Respondent Type	How would you rate your own personal morale at this time on a scale of (1) extremely low to (100) very high?	How would you rate the morale of your team overall at this time on a scale of (1) extremely low to (100) very high?
Healthcare Providers	77	71
Healthcare Suppliers	76	68

When asked what trading partners can do to support each other, communication was key for suppliers and providers. Both audiences want frequent and transparent communication, clarity around priorities and business plans, and advance notice of any issues that could cause friction. People also want to see who they're talking to and are embracing video calls as a way to strengthen relationships. Of course, the goal is to be back together in person again, and whether virtual or in person, we all want to connect on a personal level to strengthen our business relationships.

In addition to the importance of communication, both groups also stressed the need for patience and flexibility. We are all working at such a fast pace, and priorities are changing sometimes on a moment-by-moment basis. One provider asked suppliers to "be patient with us on projects and priorities. Each day is presenting new challenges and is pulling us away from current priorities." And being sensitive to these shifting priorities also requires agility - the ability to make changes at the last minute to accommodate those changes.

Suppliers are looking for creativity from their trading partners. They appreciate a commitment to partnership relationships with a long-term focus. They are also looking for support on operational business elements - on-time payments, staying on track on key projects, and an emphasis on activities that have positive impact on mutual business performance. Likewise, providers are looking for understanding and partnership from their supplier partners. They highlighted the need for consistent supply, economic relief, and organized and efficient virtual meetings that maximize available time.

When suppliers and providers were asked what they are doing today to support each other, the responses fell into the same kind of key categories:

- Communicating - being positive, communicating often and with transparency, asking questions to create understanding, and holding regular business reviews to keep things on track
- Being creative - bringing new ideas into the discussion to solve problems in new ways
- Reducing friction in the relationship - keeping the operational interface clean and clear, being responsive, and being flexible to react to unforeseen circumstances

Suppliers also stressed the work they are doing to provide useful education to providers, and both highlighted the need to stay positive and focused with a "glass half full" perspective to maintain the morale of their own teams and their trading partners.

Suppliers and providers also shared general comments about supporting each other, and these we can all incorporate into our interactions:

- Bring back a balance between in-person and virtual to allow for the kind of socialization that impacts morale
- Use transparency to drive improvement and not to enforce penalties
- Design and implement new sales models using virtual platforms
- Remember that words matter - it's not just what you say, but how you say it that creates positive trading partner relationships
- The pandemic offers us opportunities to look at new ways to pull costs out of the system, and we should work together to make real change and not lose the lesson

Ultimately, maintaining strong team and trading partner morale is about continuing to build supportive relationships on both sides of the table. Suppliers and providers want understanding. They look for a view on the long term where small hiccups are excused, accepted, and quickly resolved as part of building an effective and lasting partnership. And they want interactions that are as free from friction as possible. It all comes down to this: "We can support one another by removing unnecessary stress" from both sides of the trading partner relationship now and moving forward.

A team of SMI members recently published an eBook on Virtual Relationship Management (VRM) with best practices and tips for navigating virtual meetings and building productive relationships virtually. Download the free VRM eBook at www.smisupplychain.com/tools.

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Bayhealth Sterile Processing team (photo taken at Bayhealth Kent Campus)

Bayhealth SPD punctures C-suite class ceiling

Might this be the tip of the iceberg?

by Rick Dana Barlow

Walk up to any titleholder – technician, lead technician, supervisor, clinical educator, manager or director – within a hospital Sterile Processing & Distribution (SPD) department and ask him or her whether they – individually or department-wide – feel respected by others throughout the organization, and they'll likely respond with tepid ambivalence or indifference or even an emphatic "No!"

Not so at Bayhealth, a multihospital system based in Dover, DE.

Through the twists and turns of necessary changes in leadership, policies and procedures and standards, Bayhealth's Sterile Processing team waved that emotional response goodbye a few years back.

To achieve such a milestone, you probably surmise that Bayhealth's SPD team simply started reporting to Surgical Services from Supply Chain … like so many other colleagues and competitors.

Nope.

Then you probably think that Bayhealth's SPD team simply started reporting to Supply Chain from Surgical Services … like so many other colleagues and competitors a few decades earlier.

Wrong again.

So, if SPD doesn't report up through Surgical Services and it also doesn't report up through Supply Chain, where is its place? And how is that even possible, let alone allowable?

"Originally SPD and Supply Chain were integrated, but it was identified that they have unique skill sets and separate purposes for our health system," said Brian Dolan, MHSA, CRCST, CMRP, LSSGB, Vice President, Resource Management. "Trying to bundle both may work for some organizations, but to truly focus on SPD-driven improvements we had to make a clear distinction between the two entities. They still work in concert with each other but are now more siblings than conjoined twins."

The simple answer? You can trace this transformation to a C-suite attitude near the top after the department seemingly reached rock bottom before 2019.

"Sterile processing had a history of lower performance here, and we had a [Joint Commission] survey that really triggered the need for a revitalized view into SPD," Dolan recalled. "That was the tipping point – not a unique situation. [Bayhealth] overall had been looking at their talent and identifying areas where they needed

to raise the bar for standards to meet our strategic plan objectives."

Deborah Watson, who had been promoted to Senior Vice President and Chief Operating Officer back in 2010, embraced the value of SPD and made it her mission to address opportunities within the department, according to Dolan. Watson identified the need to elevate the department's standards and share the value of SPD within the organization. This involved creating a new department structure separate from Supply Chain, providing professional autonomy, eliminating the need for consultant and contingent labor, investing in necessary resources and establishing dedicated and permanent leadership over the department.

To motivate the SPD team and provide them with a clear vision of direction and rationale for the changes in leadership, training, tool development and certification requirements, the C-suite leader set "SPD of the Year" as the spotlight, the North Star, the drive to be the best, Dolan remembers.

Mission accomplished.

Because of Bayhealth SPD's comprehensive cultural, performance and structural improvements, its professional relationships with Surgical Services and Infection Prevention through a dedicated liaison and daily rounds, its expanded – and growing – scope of practice, its enhanced education, training and certification achievements and its recognized value within the C-suite, *Healthcare Purchasing News* named **Bayhealth SPD** the **2021 SPD Department of the Year**.

Against the general nationwide backdrop of productivity pressures, lack of access to resources such as device manufacturer instructions for use (IFUs), processing technologies and supplies, communication breakdowns between SPD staff and Perioperative Services (OR), gaps in universal training/certification requirements and varied levels of self-respect and confidence, Bayhealth's SPD team learned to view these barriers as challenges to overcome and provide their customers with high-quality customer service, according to Melissa McVaugh, MS, BSN, HCQS, CRCST, CIC, LSO, CHL, LSSGB, Director, Sterile Processing.

McVaugh cites as examples her team's dropping their quality variances (defects) to no more than four per month on average from 96, eliminating immediate-use steam sterilization (a.k.a. flashing) completely and all 42 team members being certified. This evidence demonstrates how the SPD team at Bayhealth successfully overcome their own barriers, made leaps in quality improvement and boosted their reputation throughout the health system, she adds.

Time to move

Before 2019, SPD functioned as a subset of Bayhealth's materials management structure. To wit: SPD originally was embedded in a department called "Central Supply" and cobranded with the supply chain functions performed with the Operating Room (OR).

The COO decided to carve out the sterile processing function and escalate the importance of SPD, bringing in several consultants to manage a joint project for SPD and Perioperative Services improvement work, according to McVaugh. The COO outlined a departmental structure that featured a director, managers at each Bayhealth site, a system educator and an instrument coordinator. Supervisors were appointed to lead every shift and to provide coverage 24/7. She then created a Vice President role that required previous leadership experience in surgical operations, infection prevention and sterile processing.

Dolan and McVaugh were recruited around the same time in late 2019, McVaugh recalls.

"We were given the goal of excellence and then the autonomy to do what we needed," McVaugh said, acknowledging the unique experience that senior-level support generated as the COO remained highly visible throughout the process by attending meetings. Still, McVaugh shared four useful tips for those yearning for something similar.

"SPD leaders need to become stronger storytellers," she indicated. "They need to know their data, know their industry and know best practice. They have to make those connections for those who don't understand [and] appreciate the complexity of SPD.

"SPD leaders must remove the shroud of 'basement life' and recognize that they are truly clinical professionals," she continued. "This takes some guts to advocate for a department that typically is underresourced. [Brian and I] have done this at previous facilities, and it comes back to knowing your value in the great system – connect to the strategic plan.

"SPD leaders need to also foster curiosity, constantly assess organizational scorecards, etc., to find where SPD can make an impact – tell the story, show them how," she noted.

"Find your allies," she concluded. "[We] worked hard to find our allies, being new to BH. We quickly buddied up with Infection Prevention, Regulatory and other folks who have high visibility in the organization. We shared our strategies and emphasized transparency. This recruits other areas to also speak your truth and invite you into conversations you had not previously been at the table for."

Dolan and McVaugh quickly assessed operations and staffing using a data-driven approach that linked SPD production to OR case flow and were able to build and promote a strategy for double staffing levels to satisfy leadership, specialist roles and front-line teams. In fact, Dolan had brought a "calculator" with him from a previous organization that he used to justify to the CFO the need to increase full-time equivalents (FTEs) related to surgical volumes.

"Showing the CFO here at Bayhealth that there was a lot of thought, data analysis and productivity understanding removed any arguments that could have been started if it was just 'because we think so,'" Dolan noted. "Value is in the details."

Originally, Dolan was hired to lead the Supply Chain division with SPD technically reporting up through him. But that didn't sit too well with Dolan who had 18

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Fast Facts on Bayhealth's Sterile Processing team

SPD FTEs	42	**Hospital admissions**	18,961
Acute care facilities serviced	4	**Emergency department volume**	98,185
Nonacute care facilities serviced	33	**Outpatient visits**	913,431
OR suites	21	**Surgeries (2020)**	11,076
Number of beds (operating)	394	**Births (2020)**	2,225
% FTEs certified	100%*		

Annual Performance and Production	**2018**	**2019**	**2020**	**2021 YTD**
Number of surgical cases supported	12,651	13,410	11,076	1,865
Number of sets/trays processed/sterilized	5,673	76,615	104,245	21,482
Instruments processed	47,553	599,389	994,412	217,821
Sterilizer loads* **	1,889	11,227	12,484	2,707
Error-free rates	0.19%	0.19%	0.03%	0.02%

Source: Bayhealth, March 2021

years of Surgical Service and SPD experience to McVaugh's 23 years. "We looked at the combination of services that ranged from value analysis, procurement, instruments, supplies, equipment and services and identified these were more 'resources' than just supplies," he said, referencing the division's name change to Resource Management. "We also wanted to have a name that the customers could see that we are here to be a resource…not a cold chain of commodities."

The philosophy also helped to balance the playing field. Dolan recently earned his CRCST, adding to his green belt in Lean Six Sigma; McVaugh recently earned her green belt in Lean Six Sigma, adding to her CRCST.

Out with "old school"

Prior to 2019, SPD concentrated on providing service to Perioperative Services. With the restructuring, however, came invitations to upper management to work collaboratively on establishing evidence-based, standardized practices that extend beyond Perioperative Services, hospital-based ambulatory surgery, nursing floors, Labor & Delivery, ambulatory surgery centers and other Bayhealth sites requiring SPD services, according to McVaugh. They extend instrument procurement and optimization and environment of care (EOC) consulting, as well as high-level disinfection standardization and IP support to the system's acute care hospitals, ambulatory practices.

McVaugh routinely meets with Infection Prevention (IP) to discuss issues outside of SPD. Further, she and her managers also attend EOC rounding at various Bayhealth sites to offer IP- and SPD-related feedback. SPD also retains a seat on the IP committee.

"During meetings we quickly built a relationship with that team by showing them that we look at things not just at a myopic level, but a system impact," she added.

The COO also incorporated SPD into the organization's shared governance model where a team of Perioperative Services and SPD staff from each Bayhealth hospital campus participates in an Operations Performance Improvement Team that meets monthly, reinforcing accountability and responsibility for customer service levels.

"This was aimed at creating a joint venture on improvements in SPD," McVaugh noted. "It takes both sides to maximize the value of sterilization services. SPD cannot own all of the components as the Perioperative Services has major influence on our success. Service was a big topic at the beginning, but it has translated more to a partnership that both sides have to contribute towards. SPD and Perioperative Services are equals. It can vary on the organization's culture – overall and in Perioperative Services – that can impact [and] support SPD integrating in this way. We have both been in organizations that either accepted or rejected the value of SPD. Both of us agree that Bayhealth has created an environment that we find unique and authentically focused on SPD."

SPD also designated one FTE to serving as a liaison for rounding, which enables the staff to know each other personally and by name to foster communication and respect, according to McVaugh. Previously, SPD feedback arrived via error reports that weren't able to be addressed in real time before they escalated into an "intraoperative concern," she added.

One SPD liaison rounds during the day shift and an evening/night supervisor rounds in the evening, multiple times per day. The liaison works with the educator to develop any plans on lessons during the day, McVaugh notes.

Productivity gained

SPD targeted any competency gaps internally, ensuring that the entire team followed the standards issued by ANSI/AAMI, AORN, APIC and The Joint Commission.

"We focused on standard access to IFU information, updated count sheets and SPM workflow, and identified some of the unnecessary steps that staff may have been taking during processing," McVaugh said. "Once the competency gaps were identified, SPD developed a recruitment strategy for new staff members that could help close those competency gaps by bringing in certified staff members. Once all staff were in place, we began to cross-train each employee."

McVaugh admits that certifying and cross training all employees within a year or so was not as challenging as one might expect "once we provided the tools and structure to the staff," she indicated. "They had not had a framework to do this in the past [so it] was a foreign concept, but they could understand with leadership direction."

SPD also assessed equipment functionality and efficiency to meet productivity

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Bayhealth SPD team salutes supplier partners as instrumental in success

Who supports an award-winning organization? Dover, DE-based Bayhealth's Sterile Processing team appreciates the product and service companies that have helped them develop and improve their operations and performance during the last several years. The team shines a spotlight on 7 below.

Advanced Sterilization Products (ASP) provides high-quality sterilization equipment and support we need to process our instrumentation.

Aesculap supports our new instrumentation needs and provides point-of-use inventory for the prep/pack functions and ongoing education and support of our efforts for standardization.

Healthmark Industries provides the necessary tools to track and control our department workflows with various accessories.

oneSOURCE serves as our source of truth for instrument processing instructions. This has had an indelible impact on our sterile processing knowledge base and has advanced our use of standardized and consistent practices.

STERIS provides high-quality sterilization equipment and support we need to process our instrumentation, and through its SPM Surgical Asset Tracking Software it provides resources to boost our use of the instrument tracking system and extending our systems' use to all sites of surgical care. Having a standardized tracking system in all locations provides us with enhanced visibility into our inventory and the ability to have a dialog with our customers.

STERIS IMS proffers diligence in their repair service and taking care of our inventories. The teams see the value in their partnership, and their level of visibility in our operations has built trust with our teams and customers.

Zimmer Biomet partners with our departments to eliminate issues with tray composition, assists us with the creation of count sheets and provides education for our teams.

Congratulations Bayhealth

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goals and developed closer relationships with the Clinical Engineering team to maximize equipment uptime and to communicate with clarity and transparency when potential bottlenecks emerged due to downtime. McVaugh hails the "well-trained CE technicians that understand the importance of SPD work."

Last year, throughout the rise of the COVID-19 pandemic, SPD worked with Perioperative Services to fully eliminate immediate-use steam sterilization (IUSS a.k.a. "flashing").

"This was a joint decision," McVaugh admitted. "Perioperative Services Director was all about it! Collaboration and communication are key. We still have occasions where these issues bubble up, but we always find a way through it. The biggest thing is everyone recognizes that IUSS was not a good practice and accepts when delays happen. They may not be happy about it, but they know that best practice should be followed."

How did SPD and Perioperative Services make this happen?

"This was accomplished by removing autoclaves in the OR cores, implementing the use of OneTray, implementing a data-driven approach to increasing inventory and improving communication with Perioperative Services regarding inventory versus scheduling," she responded.

Empowering SPD

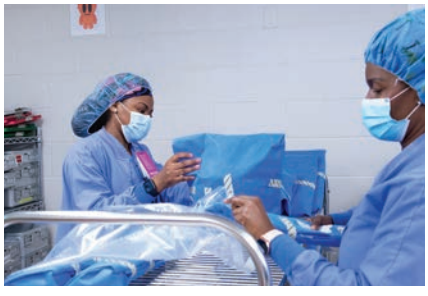
Prior to 2019, SPD professional development emerged from a simple process: On-the-job training. The COO set a lofty goal for the new leaders: Achieve 100% staff certification of technicians.

Right before COVID-19 surfaced in March 2020, SPD leaders had set up a three-hour study group to meet every Sunday for 16 weeks. The pandemic interrupted the schedule until the organization allowed small groups to meet. Today, Bayhealth's SPD team is fully certified.

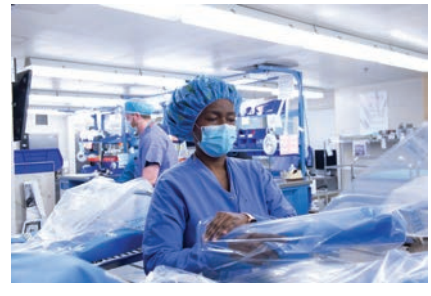
Meanwhile, McVaugh and Dolan are working on a career progression ladder to link pay increases as a reflection of certification, and they're also working with IAHCSMM to create an advocacy group that develops a national standard business case for compensation ties to certification, according to McVaugh.

Grunderson Jean-Philippe, Manager of Bayhealth's Kent Campus SPD department, opened a sterile processing training academy called BE INSTRUMENTAL LLC, where he provides sterile processing, infection control and instrumentation education for students from Delaware, New Jersey and the nearby Philadelphia metropolitan area. Jean-Philippe has been teaching sterile processing for more than six years to students seeking a career in the

Bayhealth Kent Campus



Tech II Shellie Pearsall (left) and Tech II Michele Ginn (right) load sterile instrumentation in sterility maintenance covers.



Tech II Michele Ginn places sterile instrumentation in sterility maintenance covers.

Tech II Daniel Robb restocks a work station.

Tech II Shellie Pearsall (left) and Instrument Coordinator Thomas Haley prepare a tray for sterilization.

Tech II Daniel Robb preps and packages surgical instrumentation to undergo high-temperature sterilization.

Tech II Charles Jones places a sterile tray inside of the sterile storage area.

Tech I Naiome Jean Philippe prepares to start cart washer.

Tech II Michele Ginn checks in prep-and-pack work area.

Tech I Season Whiting prepares sinks to begin decontamination process.

profession and want to make a difference in a patient's life, McVaugh says.

In fact, BE INSTRUMENTAL, through Bayhealth, is affiliated with Delaware Technical Community College to provide clinical training for students enrolled in the sterile processing program. Through this program, students complete the 400 hours of hands-on training as part of their curriculum and gain the experience needed to work in SPD, she adds.

For two years SPD also concentrated on staff satisfaction to solidify the cohesiveness of the team – including experience/knowledge sharing, boosting morale and trust among each other and with Perioperative Services. From delegation to empowerment, team building to development, the efforts yielded a 6% overall increase in employee satisfaction in one year alone, according to McVaugh.

That overall measurement contained two key statistics – a 22% increase in "going above and beyond" and a 24% increase in "sufficient time to do their work," McVaugh cites.

For the first one, the SPD leadership team used the volunteer fireman's analogy: "Volunteer fireman risk their lives going into burning buildings to save strangers. Why do they do that? Because they feel valued, respected and needed," she said. "Leaders emphasized this mantra and wanted all staff to gain the same mentality/feeling of the Volunteer fireman. Team members will also always go above and beyond when motivated by strong leadership – Bayhealth's investment in the new structure as well as successful recruitment of strong leaders further solidified this area. We also saw gains in this area with enhancements with Perioperative Services-SPD relationship and that team members feel that they are being seen by their customers."

McVaugh attributes the second one to department streamlining and the provision of education, which included the hiring of an educator to the SPD management team.

"Education empowers workflow," she said. "When we have variation in workflow, it is easy to have inconsistent time to complete tasks, various order of operations, etc. In the spirit of lean, educating to one process can always yield greater time and level loading – it is clear our staff feels that. I think that any time an organization develops standards, gives expectations for timing per step and allows the team to have the knowledge to either remove unnecessary steps or to improve how they can perform a step, the results will always yield more time."

Efforts seem to be paying off as shown by SPD-collected data on error frequency. In 2019, SPD recorded 622 variances; that number plummeted to 162 in 2020. As defects occur, SPD investigates them in real time using their SPM software and identifies their root causes, according to McVaugh. SPD strives to reduce defects to below 0.8% by the end of the year, something McVaugh says will be achieved.

This year, SPD leadership created a dashboard to showcase their performance with customers. Dolan used a SmartSheet application and Excel to create this web-based tool for internal sharing.

Looking ahead, SPD will continue functioning as a high-performing team through effectiveness and efficiency, according to McVaugh. This includes strengthening the "systemness" of SPD and eliminating barriers between sites of care, using data and analytics to assess service delivery, collaborating with other departments to facility better patient outcomes, working with suppliers and providers to optimize instrument inventory and using evidence-based practices to drive a consistent service model and standardized sterilization procedures, she adds.

McVaugh admits that two elements of the strategic plan pose the greatest challenges. "Instrument optimization is the hardest because it involves forging new direct relationships with surgeons," she said. "SPD usually had to work through nursing for these. We are taking ownership of Perioperative Services instrument budget so we can have direct discussions. Data is also a challenge as we need to continue scrubbing our sources."

As for the least challenging?

"Systemness," she answered. "We have a great foundation and team invested in our long-term plans."

McVaugh believes that any SPD team should be able to emulate what they've accomplished within the last two years – and within the same timeframe.

"It starts with leadership support and setting a solid goal and plan of attack for improving the area," she insisted. "You must harness the data and understand current state, gaps and needs. Only then can you really identify the countermeasures necessary to move forward." HPN

All photos courtesy Bayhealth.

There's more to see online!

Bayhealth SPD team roster:
https://hpnonline.com/21218026

Bayhealth SPD serves as challenge solvers:
https://hpnonline.com/21218023

From law enforcement to pro football to laser safety to SPD, Bayhealth SPD leader's career track has been a wild ride:
https://hpnonline.com/21218024

Bayhealth Sussex Campus

Tech II Jeanine Francois empties the washer disinfector.

Lead Tech Shayla Walker stages clean instrumentation.

Tech II Jo Ann Matthews cleans instrumentation.

Sterile Processing Educator Rasheena Muhammad restocks inventory.

Clinical-Supply Chain knockdown, comeback

Rebounding in care, safety and supply systems in ongoing pandemic

by Ebony Smith

Photo credit: Taechit | stock.adobe.com

Moving on in the second year of the COVID-19 crisis, you see hospitals, intensive care units (ICUs) and other essential healthcare providers continuing to combat obstacles in patient care, supply management and infection control in their settings.

On one hand, the situation looks brighter, with more vaccine shots in arms to slow the spread of the SARS-CoV-2 virus, which causes COVID-19. On the other hand, the pandemic shows no apparent signs of ending, with variants detected in several locations, relaxing public health safety measures, rising infection cases and increased care needs.

This all, of course, strikes a blow to the health and well-being of healthcare workers, patients and families, as well as the stability and bottom line of hospital and healthcare operations.

Frontline workforce hit, help

First, for example, ICU physicians and staff remain stretched thin in many areas across the U.S.

The George Washington University reported, "analysis shows that ICU doctors in…209 counties will be taking care of more than 24 severely ill patients at one time. Typically, an ICU doctor will care for half that number of patients or less at the same time—and, at 24 or higher, hospitals will have to quickly organize and train non-ICU providers to step in and help provide care…Hospitals can create a new COVID-19 unit by taking over an underused floor or wing, but they have more difficulty finding trained doctors and others to fill in when health care workers get sick or must quarantine." [1]

At Baptist Medical Center, part of Baptist Health Care System in San Antonio, TX, adding more capacity to care for patients with COVID-19 increased pressure on staff, supplies and equipment, explains the hospital's Critical Care Director Connie Thigpen, MBA, RN, a recipient of a 2021 Circle of Excellence award from the American Association of Critical-Care Nurses.[2]

Connie Thigpen

"My ICU quickly expanded from 30 to 56 beds," Thigpen indicated. "We had a few supplemental staff in the form of crisis nurses when we started to hit those peaks, but not enough to keep our staffing loads the same as before the pandemic. Instead of the usual one to two patients per ICU nurse, we were all providing care to four COVID-19 patients each in the ICU.

"In addition to the expected PPE-related issues, other material items quickly became issues," she continued. "We took over an 18-bed post-anesthesia care unit and reopened a closed unit that was once an eight-bed ICU. We were challenged to find the additional beds, flow meters, suction heads, monitoring cables, and all the basic components needed to set up a room to receive a patient. And that is not even touching on ventilators, hi flows, and bipaps. Whenever we placed equipment orders, we faced extraordinarily long wait times for delivery."

Medical workers continue to endure extended responsibilities and hours caring for such critically ill patients in environments heightened by infection risk.

Asilinn La Brie, RN, BSN, MBA, Senior Consultant in Business & Clinical Optimization, Cardinal Health, points to several conditions healthcare staff have faced during care and the pandemic, including:

- "Working with the fear of becoming infected – and exposing others
- Shortage of critical personal protective equipment (PPE)
- Elevated workloads and high patient-nurse ratios
- Fewer support staff and maybe even fewer on-call staff
- Shifts that did not allow time to disconnect, while taking on more responsibilities when managing patients with COVID
- Emotional and physical stress and exhaustion
- Inability to provide psycho-social care to patients and families
- Protocols frequently changing; some new cleaning protocols placing greater burden on clinicians and requiring them to take on additional duties."

Asilinn La Brie

Health and wellness support, consequently, has transpired as a need among healthcare personnel to help cope in the crisis.

For example, "A new article in *The Joint Commission Journal on Quality and Patient Safety*…details how Montefiore Medical Center – located in the Bronx, the borough hardest hit by COVID-19 in New York City – implemented various mental health services to mitigate and treat psychological distress among staff. Interventions implemented during the pandemic included:

- Psychoeducational resources (including invited presentations, grand rounds and web-based resources)
- Telephone support line
- Staff Support Centers (SSCs)
- Clinical treatment program
- Parenting skills and support groups
- Team support sessions
- Peer support outreach
- Mental health and wellness programs
- Clergy support," addressed The Joint Commission."[3]

PPE access plummets, pivots

Safeguarding medical teams from COVID-19 and other infections within healthcare settings requires ongoing focus on PPE. That means maintaining a steady flow of supply for all staff at all times. The pandemic, however, has caused major breaks in the supply chain.

"Healthcare systems worldwide have worked under challenging conditions during the COVID-19 crisis," emphasized

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David Phillips, Marketing Manager, Hänel Storage Systems. "The lack of adequate PPE supplies caused anxiety, insecurity and fear of infection. PPE was in such short supply that nurses would often develop homemade solutions to protect themselves. So many supplies had to be immediately discarded at the start of the pandemic because they had been expired by several months when they were needed most."

Phillips suggests implementing centralization and automation within inventory management systems to help improve access to supplies and workspace.

"Centralizing PPE supplies will take those items out of the various departments in which they're currently located, which will free up much-needed space in those areas. A Hänel Rotomat automated carousel, specifically designated for critical supply, can act as an 'automated PPE czar' to the provision of supplies for each area as needed. This ensures the efficient use of PPE stockpiles, tracked by expiration dates, so the next health crisis won't catch hospitals shorthanded as they were at the start of COVID-19."

Face masks, in particular, are a high priority for staff protection and infection control in hospitals and other environments.

Officials at the Henry Ford Health System cited, "A study published in the Journal of Occupational and Environmental Medicine from researchers at Henry Ford Health System has found that Henry Ford's early implementation of a universal mask policy in the COVID-19 pandemic was strongly associated with reducing the risk of healthcare workers at Henry Ford acquiring COVID-19."

The system added, "Healthcare workers have a threefold increased risk of reporting testing positive for SARS-CoV-2…compared to the general population, according to a study published in *Lancet Public Health*. As of March 22, 2021, the Centers for Disease Control and Prevention (CDC) has reported more than 450,000 SARS-CoV-2 infections among healthcare workers in the U.S. since the onset of the pandemic, and nearly 1,500 COVID-19 related deaths among healthcare workers."[4]

Personnel in facilities, such as Baptist Medical Center, learned to change their practices around PPE as COVID-19 surfaced, notes Thigpen.

"When COVID-19 first reached San Antonio, some staff were hesitant to adjust long-held protocols, especially around the extended use of PPE," Thigpen expressed. "Throughout all of our nursing careers, we had been trained that some items were single-use or were to be used only so many times, or that one item was not a substitute for another. Suddenly, we were being told to wear the same N95 mask for multiple shifts when for years we had been rigidly told to change any PPE between patients. We were also told that doing so would be okay and would maintain the same amount of protection."

The facility's communication and guidance about the disease and prevention helped ease mindsets and develop new behaviors among the workforce, adds Thigpen.

"We needed to mitigate staff concerns about changing standards and potential shortages for PPE and then shore up their confidence as much as possible with good information and clear communication," she stressed. "As more information became available in the form of manufacturers' recommendations, official updates and infectious disease data, we were able to focus our COVID-19 staff education on what was working in other parts of the country. Attitudes began to shift, and we achieved greater buy-in and support from staff."

As availability of disposable face masks may shift at times, some hospitals and providers have opted for other types of face protection supplies that can be disinfected and reused, indicates Jon Imms, Global Technical & Product Director, CleanSpace Technology.

"The COVID-19 pandemic has highlighted the global challenges for the supply of disposable N95 masks and the widespread issues for poorly fitted and uncomfortable masks," Imms stated. "The issue of comfort has been illustrated in reports of staff complaining of moisture on the face, heat stress, fogging of eyewear and deep marks on the face at the end of a shift. Being uncomfortable, disposable masks also lead to low compliance. With active airflow, CleanSpace HALO offers a high level of protection, provides cool, fresh air on the face, eliminates fogging of eye wear, and the clear transparent masks allow for easy communication."

Care, supply collaboration

While hospital and healthcare staff have experienced many challenges during the pandemic, they also have achieved several successes through partnership with their teams, supply chain and facilities.

Take, for instance, the collaboration between Baptist Medical Center's ICU and Central Supply department. Together, they made strides in efficiencies in care and supply management.

"When I became director during our peak last summer, we did not have a handle on supplies and, basically, it was purely crisis control," Thigpen described. "Having a good working relationship with our facility's Central Supply and developing an initial game plan got us started and maintained supplies funneling into our 56 COVID-19 ICU beds that were scattered over five areas. Our Central Supply staff and management were amazing; they established a designated rack in the Central Supply department, from which we restocked our daily supply needs and essentials. We adjusted the baseline stocking levels that Central Supply used for reordering several times over to accommodate the increased amount of tubing, flushes, needles, lab supplies, etc., required to take care of the massive consumption required by COVID-19 patients."

She continued, "Our most amazing success was the reconfiguration of the post-anesthesia care unit we took over. The PACU supply closet was tiny and too far removed from the bays that we had converted to ICU beds. We set up placards and racks in the very front of the entry, which were filled with item lists generated by ICU staff, were physically arranged by ICU staff and allowed easy, open and immediate access. Staff could also easily create lists for Central Supply to restock based on this open format, which was a necessity as there was not a room large enough to hold what the ICU required."

La Brie points to Supply Chain and Nursing partnering to improve medical supplies and pathogen control in a hospital system.

"At one 15+ hospital system, the Cardinal Health Sales team collaborated with key members of the Supply Chain and Critical Care Nursing teams to help them standardize to Kendall Disposable Cables and Lead Wires," La Brie indicated. "The Supply Chain team was thrilled to learn that switching to Kendall DL could help them eliminate more than 20 types of lead wires used across the system by standardizing to one SKU. Both groups of stakeholders were aligned and motivated by the fact that this clinically proven product helps reduce the risk of cross contamination (according to the *American Journal of Infection Control*)."

Imms highlights another health system's work to protect staff from infection spread through new PPE.

"Parkview Health is a US Health system serving a population of more than 895,000," Imms described. "Parkview has more than 13,000 employees, nine hospitals and a network of primary care and speciality physicians. Alyssia Mickem, Safety Supervisor for Parkview Allen County, said they chose CleanSpace Respirators as their respirator of choice during the COVID-19 pandemic, because 'Safety is Parkview's highest priority with their employees, with

their patients, with their visitors, and this does offer the highest protection.'"

Caring on

So, with all the odds stacked up against them in the continuing pandemic, how will hospitals and healthcare facilities fare in patient care?

The outlook, currently, shows a financial toll will occur this year, according to "new analysis prepared by Kaufman, Hall & Associates, LLC and released by the American Hospital Association (AHA)," [5] reported AHA.

- "Even under the most optimistic scenario with a smooth vaccine roll-out and reduced COVID-19 hospitalizations, on average, 39% of hospitals would operate in the red in 2021, a marked increase over pre-pandemic baselines, according to Kaufman Hall data. Under this scenario, median hospital operating margins would be 10.5% down from pre-pandemic baselines in 2019. Before COVID-19, the median hospital margin was a modest 3.5%.
- "In the most pessimistic scenario, on average, half of hospitals would operate in the red in 2021, with median margins down 80% from pre-pandemic baselines.
- "For rural hospitals, the most optimistic scenario would result in median margins that are 38% down from pre-pandemic baselines, with the most pessimistic scenario resulting in a 100% decline from baselines." [5]

Still, there is a glimpse of advancing care and safety as new technology makes its way to bedsides.

For example, "Hackensack Meridian JFK University Medical Center is the first hospital in New Jersey to operate a new portable MRI that can be wheeled to the bedside of critically ill patients… The Swoop Portable MR Imaging System is made by Hyperfine Research," [6] announced Hackensack Meridian JFK University Medical Center.

"Some of the potential advantages of mobile MRI include:

- "Scanning patients in the Emergency Department, decreasing wait times and speeding diagnosis
- "Scanning COVID-19 patients at the bedside, decreasing the risks of transporting infectious patients through the hospital
- "Improved monitoring of patients in the Neuro Intensive Care Unit as they recover."

Additionally, CareView Communications, Inc announced a "three-year agreement with Maury Regional includes CareView's latest Gen 5 hardware and software offerings, which includes a variety of camera solutions specifically designed to address clinical needs in general safety, applications for use in ICUs, behavioral health settings, and negative pressure COVID-19 units. CareView's solution for reducing patient falls and increasing in-room patient safety is a scalable design that delivers operational savings in any application." [7]

The supply chain-clinical partnership on products needed can help enhance operations and care, suggests La Brie.

"The Supply Chain and Critical Care Nursing teams should connect with key suppliers, where applicable, to create a comprehensive plan," La Brie recommended. "As each situation is fluid, the goal should be to ensure an atmosphere of visibility and openness with supply chain and clinical staff. The teams should have a plan in place that provides concise, consistent and frequent communication in any future pandemic or emergency care."

She continued, "Several elements impact how these teams can perform most effectively together, including:

- Standardized process and products: standardizing patient care can lead to more consistent patient outcomes as well as improved efficiency
- Visibility to product inventory
- Built-in time for the staff to take a breather; with increased cleaning protocols and higher nurse-patient ratios, it is essential for clinicians to have breaks for physical and mental wellbeing."

Industry regulations for adequate supply of PPE on site are coming, indicates Phillips.

"There will soon be state deadlines that require hospitals to have at least a minimum amount of PPE on hand," Phillips noted. "Once that amount is met, the inventory will need to be accurately tracked and managed. Even though there is a light at the end of the tunnel with the current pandemic, there will always be healthcare events that need isolated supplies." **HPN**

References:

1. 209 US Counties Face a Crisis in Staffing ICUs that Care for COVID-19 Patients, Online tool launched today by George Washington University and partners, March 04, 2021, https://mediarelations.gwu.edu/209-us-counties-face-crisis-staffing-icus-care-covid-19-patients

2. https://www.aacn.org/newsroom/class-of-2021-circle-of-excellence-recipients-announced

3. Mental health support for health care workers during COVID-19 pandemic, https://www.jointcommission.org/resources/news-and-multimedia/news/2021/02/mental-health-support-for-health-care-workers-during-covid-19-pandemic/

4. Henry Ford Study Shows Face Masks Strongly Associated With Reducing Healthcare Workers' Risk of Acquiring COVID-19, March 26, 2021, https://www.henryford.com/news/2021/03/universal-masks

5. Hospital & Health System Financial Health in 2021, WASHINGTON (March 23, 2021), https://www.aha.org/press-releases/2021-03-23-new-analysis-shows-continued-negative-impact-covid-19-hospital-health

6. JFK University Medical Center First Hospital in New Jersey to Utilize New Portable MRI, March 25, 2021, https://www.hackensackmeridianhealth.org/press-releases/2021/03/25/jfk-university-medical-center-first-hospital-in-new-jersey-to-utilize-new-portable-mri/

7. CareView Communications, Inc. Executes Hospital Agreement with Maury Regional Medical Center, Posted on March 23, 2021, https://care-view.com/careview-communications-inc-executes-hospital-agreement-with-maury-regional-medical-center/

Impressive performance reflected inside pandemic

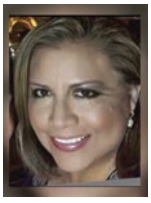
2021 Salary Survey: COVID-19 unable to stem professional progress

by Kara Nadeau

Photo credit: Mike Fouque | stock.adobe.com

What a difference a year can make. According to the results of the 2021 *Healthcare Purchasing News* Infection Prevention Salary Survey, the average annual salary for a U.S. infection preventionist (IP) is $95,752, an 11 percent increase ($9,700 more) over the average reported pay of $86,052 in 2020. Although higher pay can come at a price. During the past 12 months of the COVID-19 pandemic, IPs report taking on additional roles and responsibilities and working longer hours while struggling with staff shortages and high patient volumes.

"COVID-19 has been a ruthless adversary and profound reminder that we must work in earnest every single day to inculcate best and effective principles of infection control and prevention," said Fatima R. Muriel, MT (ASCP), CIC, Infection Preventionist, Women & Infants' Hospital, Providence, R.I. "IPs have endured the fight day to day, making sure we bring education and timely and accurate information to key stakeholders for the protection of patients and healthcare workers."



Fatima R. Muriel

2021 Snapshot

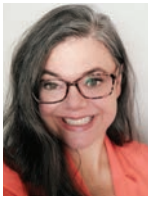
This year's composite IP is female, and she is 54 years old. Her title is Infection Preventionist, and she is certified by the Certification Board of Infection Control and Epidemiology (CBIC). She reports to the Vice President/Director, Quality/Risk Management/Chief Quality Officer. She has been in infection prevention an average of 17 years and has worked at her current facility for 12 years. She is employed at a nonprofit, standalone hospital with 341 beds. There are three employees in her department.

Most IPs see pay rise, at many levels

When examining pay raises by position, the following titles reported the most significant leaps in compensation:

- Infection Preventionists: $92,019 in 2021, up from $75,512 in 2020, a 22% increase
- Infection Prevention/Control Coordinator: $88,612 in 2021, up from $74,444 in 2020, a 19% increase
- Infection Prevention Directors: $114,177 in 2021, up from $97,463 in 2020, a 17% increase

"Since entering the IP profession nine years ago, I have definitely seen the compensation for IPs improve," said Brenda L. Bassett, MBA, MLS(ASCP), CPHQ, CIC, Infection Prevention Practitioner II, Epidemiology Department, who works for a large healthcare system in the Dallas Fort Worth area. "I think Value-Based Purchasing has really helped to enhance the value an IP brings to the table since a large chunk of reimbursement to healthcare providers is tied to the reduction and elimination of hospital-acquired infections."



Brenda L. Bassett

Those holding the position of Infection Prevention Manager report a less than 1% increase, with an average annual salary of $99,655 in 2021, up from $98,880 in 2020. The same holds true for Infection Prevention Nurses, with an average salary of $80,037 in 2021, up less than 1% in 2020 at $79,614.

There were too few respondents in the Infection Prevention Practitioner, Employee Health, Quality/Risk Management and Educator categories to accurately report on 2021 salaries in these positions.

The vast majority of respondents (96%) were female, with an average yearly salary of $95,755, compared with men (4%) at $91,687 annually, the remainder of respondents (2%) chose not to reveal their gender.

A secure profession with increased recognition

The number of IPs who feel their jobs are "very secure" was up, at 53% in 2021 compared with 47% in 2020. An additional 38% of respondents feel their jobs are "somewhat secure." Those who feel "somewhat insecure" or "very insecure" in their positions changed little, at 9% in 2021, compared with 10% in 2020.

"There is job security in this role due to the Centers for Medicare & Medicaid Services (CMS) and state health department reporting requirements," said Jessica L. Swain, MBA, MLT, CIC, Senior Infection Preventionist, Regional Resource, Quality Assurance and Safety, Dartmouth-Hitchcock, Lebanon, N.H. "Additionally, many infection preventionists work in dual roles with numerous responsibilities."

Jessica L. Swain

Recruiter websites are full of open IP positions and interim positions, according to Andrea Harper, MS, MLS, CIC, CPPS, CPHQ, Infection Control Manager, LRGHealthcare, in Laconia, N.H. She notes that IPs who are willing to travel or relocate often have an opportunity to increase their salaries. Harper also points out that IP burnout is extremely high, with many IPs retiring early because of the strain of the pandemic.

"When COVID hit, it felt like 200% of your job was dedicated to COVID infection prevention/communicable disease reporting and emergency preparedness mitigation strategies," Harper commented.

"I see job postings listed often and it sometimes takes months to fill positions," Bassett added. "The need for experienced IPs is great but the supply is limited since it is a fairly niche specialty within the healthcare world and takes quite a bit of time to become familiar with all aspects of an IP's role and obtain competence in all facets of infection prevention."

When asked if they believe their facility's' C-suite appreciates and understands their role in providing good patient care while managing costs, nearly half (49%) responded "yes," similar to last year (51%).

"Overall, I feel that the IP role is not completely understood by most administrations," said Harper. "If CMS and other accreditation agencies did not require infection prevention oversight, I fear that IP positions would be reduced or cut."

"Infection preventionists work hard to engage healthcare leaders and healthcare workers in infection prevention practices, but the connection of these practices to quality care, positive patient outcomes and cost avoidance is not always apparent," said Swain. "Our team has spent years building relationships with departments throughout the hospital and ambulatory clinics in order to engage healthcare leaders and healthcare workers in infection prevention best practices, but prior to these engagement efforts most healthcare workers thought that IPs were the hand hygiene police. Now we are seen by most as a resource available to help."

"Our role as subject matter experts increased exponentially during the pandemic and we were seen as the 'go-to' with many decisions healthcare organizations had to make, which elevated the importance of infection preventionists across the country," said Ashley Conley, MS, CIC, CPH, CHEP, Director, Infection Prevention, Catholic Medical Center in Manchester, N.H., and President, New Hampshire Infection Control and Epidemiology Professionals.

Ashley Conley

Education and certification on the rise

As in past years, salary is tied to education, with pay increasing alongside level of education achieved. Those with high school diplomas as their highest education level report earning $57,500 on average annually, Associate degrees $75,340, Bachelor's degrees $90,544 and post-graduate degrees $108,794.

Continuing education and certification spiked among survey respondents in 2021. More than three-quarters (76%) of IPs surveyed are Registered Nurses (RNs), up from 49% in 2020, and 17% are Medical Technologists, compared with 8% last year. There was also a huge jump in IPs who are certified by the Certification Board of Infection Control and Epidemiology (CBIC) at 66% in 2021, compared with 35% in 2020.

"The pandemic has shown that well-educated and -trained infection preventionists with departments that have adequate resources can make a big difference in preventing infections which demonstrates the need for job security," said Conley. "Having a staffed infection prevention department, in many ways, is like having a subspecialty. Not all facilities - especially small facilities or those in rural areas - have the resources to have a robust or dedicated IP team. Fortunately, in a place like New Hampshire, infection preventionists work together to support each other with best practices and knowledge sharing, to the benefit of all patients."

At Dartmouth-Hitchcock, the IP team created new senior and associate IP positions as a way to offer new IPs a road to advancement, according to Swain.

"My role as one of the two senior IPs has expanded my work to the hospital system and community group practices," she stated. "In addition, the IP team has expanded its efforts to provide education and resources to all departments within the hospital that come in contact with patients or patient care areas, as opposed to only those providing direct care. We felt that this was an important step since so many non-clinical departments play a big role in how we care for our patients as well."

Certification paid off for Harper. She began a new job as a Quality Coordinator in February 2020, in her words, "at the beginning of the COVID pandemic before we fully understood the future impact to our nation and the world." In March 2020, her employer allowed her team to work remotely, but in April it furloughed her and another 600 employees. At the end of May 2020, the facility's IP Director resigned and because Harper was certified and had recent past experience as an IP, she was hired for the open position.

"I hit the ground running trying to learn a new organization, orient to a new IP department and acclimate in the middle of a pandemic," she commented. "I am very grateful to have a supportive supervisor, as well as inherited an established infection control team."

Region and facility type again impact pay

The majority of survey respondents this year are employed by standalone hospitals (60%) and IDN/alliance/multi-group health facilities (32%), with the latter reporting the highest average annual salary ($104,341/year). IPs working in behavioral/psychiatric health facilities had the next highest reported pay ($92,700/year), followed by standalone hospitals ($92,616/year), long-term acute care facilities (LTAC) ($90,000/year), surgery center/ambulatory center ($85,100) and clinics ($63,333). Those working in the largest facilities (over 1,000 beds) earned the most at $129,937 annually, while those in the smallest facilities (0-25 beds) reported the lowest pay at $73,770.

Location matters when it comes to pay. IPs working in healthcare facilities in suburban areas earned the most at $106,296, followed by urban facilities at $104,431 and lastly rural at $79,763 annually. As in previous years, IPs working in the Pacific region of the U.S. reported the highest pay on average at $136,077, which is up from $107,857 in 2020.

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2021 Respondent snapshot

Title: Infection Preventionist
Reports to: VP/Director, Quality/Risk Management/Chief Quality Officer
Gender/Age: Female/54.3
Years in IP/Years at faclility: 17.7/12.1
Type of facility: Non-profit, Standalone Hospital
Average number of beds: 341
Avg. # of dept. employees: 3.14

AVERAGE ANNUAL BASE SALARY: $95,752

INCREASE OF BASE SALARY SINCE LAST YEAR?

60%	Yes, it increased
37%	It remained the same
3%	No, it decreased

PERCENTAGE INCREASE OVER LAST YEAR

5%	Less than 1%	3%	5 - 5.99%
25%	1 - 1.99%	2%	6 - 6.99%
33%	2 - 2.99%	2%	8 - 8.99%
28%	3 - 3.99%	1%	9-9.99%
3%	4 - 4.99%	0%	Over 10%

EXPECTING A BONUS THIS YEAR?

67%	No
16%	Yes
16%	Don't know

2020 AVERAGE BASE SALARY: $86,052

2011 AVERAGE BASE SALARY: $72,045

Pandemic drives broader roles and responsibilities

According to the IPs surveyed, COVID-19 has affected the profession in many different ways. The top impacts reported are work hours (92%), broadened scope of responsibilities (87%), job satisfaction (58%) and staff shortages (53%).

"The COVID-19 pandemic has impacted and challenged every infection preventionist in ways one would not have dreamed of," said Muriel. "We have known that an infectious disease X was looming in perhaps the not-too-distant future. However, the daunting logistics and extreme situations of COVID-19 could not have been anticipated."

"Infection preventionists have been working longer hours creating new policies and procedures to keep healthcare workers and patients safe during the COVID-19 pandemic," noted Swain. "We have taken on additional responsibilities including 24-hour call, personal protective equipment training and fit testing, and supplementary rounding on COVID units to answer any questions staff may have."

"Many infection preventionists jumped in to help in many different ways during the pandemic, often working many long hours and having many sleepless nights," added Conley. "In my infection prevention department, we jumped in to assist with fit testing staff, training staff on COVID-19 precautions and working with Employee Health to test and conduct contact tracing for COVID-19 positive employees. We continue to have a very active role in our Incident Command Center and worked with the PIO to speak with the media."

When asked what aspects of COVID-19 have most impacted their work, the top response was the need to implement new infection prevention protocols (96%), followed by personal protective equipment (PPE) shortages (76%), patient volumes (52%) and staff shortages (52%). The majority of IPs surveyed (79%) said they have been asked to take on other roles and responsibilities during the pandemic.

Bassett describes how a large portion of each day is dedicated to answering calls and emails about COVID-19, reporting new COVID-19 infections to the health department, ensuring COVID-19 patients are properly isolated or ensuring their isolation is discontinued at the appropriate times, following up on clusters and potential outbreaks, meetings about COVID-19, process deviations, supply chain disruptions, immunizations, and educating staff and IPs themselves on changes to Centers for Disease Control and Prevention (CDC) guidance on the pandemic.

As Bassett points out, IPs have had to manage COVID-19 on top of all of their other responsibilities, including mitigation and tracking of other dangerous and costly infections, as well as all of the other tasks that fall under an IP's purview.

"Even though a large amount of time is devoted to COVID-related things, we still have all the same other IP duties to tend to like healthcare acquired infection (HAI) surveillance, National Healthcare Safety Network (NHSN) requirements, reporting to the Health Department, construction permits and Infection Control Risk Assessments (ICRA), regulatory activities, audits, Environment of Care (EOC) rounds, etc." Bassett added. "We don't have more time available in the day, so we have to be extremely efficient to get everything done, the days fly by so fast because we are constantly pulled in so many directions."

Among those surveyed, 37% of IPs say they perform duties related to employee/occupational health, 33% NHSN requirements, 25% immunization/vaccination (up from 9% in 2020), 18% quality performance management, and 17% Environment of Care (EOC) Safety management.

"Unfortunately, the pandemic does not stop other infections," said Swain. "IPs continued to perform the required surveillance and reporting, as well as train and educate healthcare workers on basic infection prevention best practices. We also continued our Joint Commission regulatory readiness efforts throughout the pandemic."

IPs throughout the care continuum

With clinicians outside of the hospital (e.g., physician offices, clinics, long-term care sites, etc.) bearing much of the burden for testing and treating COVID-19 patients, and administering vaccinations, the vast majority of IPs surveyed (80%) say they have been asked to assist with infection prevention efforts in non-acute settings.

According to Harper, many long-term care facilities did not have a designated IP prior to the pandemic. Rather, the role was often performed by the Director of Nursing, Clinical Educator or other staff member.

"I suppose the COVID pandemic has had some positive outcomes," she says. "One is the recent CMS implementation of a nursing home training program for frontline nursing home staff and nursing home management. Both frontline caregivers and managers will be able to increase the knowledge they need to stop the spread of COVID-19 in their nursing homes. In the future, I hope CMS provides more definitive guidance regarding the number of IPs required for each organization based on size, patient acuity, and if they also have oversight of long-term care facilities, ambulatory surgery centers, urgent cares and the number of outpatient practices, etc."

"In my infection prevention department, we have always worked within the hospital and in our ambulatory care practices, but the pandemic certainly increased our education, rounding and partnerships with the ambulatory practices to help them plan and respond to the pandemic," says Conley.

Muriel explains how patients within her community are cared for by clinicians throughout the continuum – from the hospital and out to physician offices and other sites. Therefore, it is critical for IPs to closely communicate and collaborate with all care locations.

"During this COVID-19 pandemic, communication across hospitals and physicians' offices has become of the utmost importance," said Muriel. "The very patients who are seen in private physicians' practices are the patients our maternity specialty hospital will care for in the delivery of their infants. It has been crucial for these practices to reach out to us to identify infection control and prevention needs for COVID-19. The outpatient clinics have also benefitted from a stronger enterprise with Infection Prevention, where there was a daily discussion with many of our clinics to provide guidance, and various other aspects of infection control issues. In this regard, this pandemic has incepted and strengthened ways of working amongst us all."

Impact on PPE and other IP product categories

With healthcare organizations struggling with supply shortages over the past year, particularly PPE, it is no surprise that IPs reported strong involvement in product evaluation, education and training. Among those surveyed, 62 percent said they are part of a product evaluation committee, with 75% involved in determining product need (up from 56% in 2020), 78% performing product safety evaluation (up from 50%), 68% engaged in process improvement (up from 45%) and 50% involved in education (up from 30%).

Swain says her team participates on committees that approve new products and equipment coming into the hospital to ensure they meet infection prevention standards.

"Infection preventionists are involved in everything from choosing cleaning products, to assessing risk of construction, to monitoring hand hygiene, to reporting hospital-acquired infections and so much more," she stated.

Conley notes how her medical center purchased a new temperature portal to

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Bassett believes COVID-19 has "really opened people's eyes to the potential for more pandemics or outbreaks of diseases in the future" and prompted her medical center to explore new technologies aimed at infection prevention.

"A lot of exploration has been conducted on utilizing non-shared or touchless technology for patients to register for appointments, check in, receive discharge instructions, etc." said Bassett. "Anything that can be implemented where less touch occurs seems to be on the horizon; touchless checkout in the cafeteria, electronic temperature checking stations, anything like that seems to be on people's wish lists. Also, a move to, or increase in other things like disposable items, UV light disinfection, machines that can kill airborne bacteria, viruses and fungi, as well as the way rooms and buildings are designed to keep people at a distance from each other and directional airflow technology. I think that healthcare leaders understand the value of having a high-quality IP team who can objectively evaluate the risk versus benefit of new systems and technology for disease reduction."

The future of the IP profession

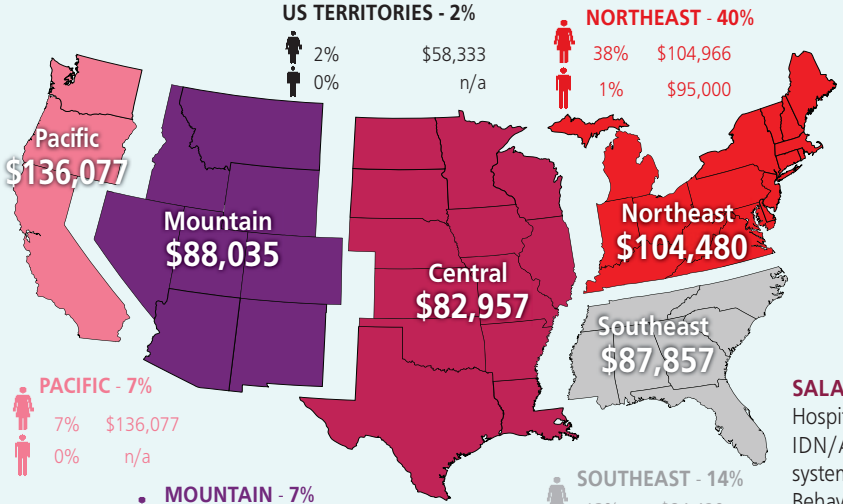
While COVID-19 has presented significant challenges to those in IP positions, necessitating long hours, greater responsibilities, struggles with PPE and staff shortages, and myriad other pandemic related factors, this past year has also shined a light on the importance of IP practitioners. There's hope that increased awareness for the dangers of infection and the need for a preventative approach – for not just COVID-19 but all HAIs – will continue well into the future.

"I feel that the IP role is understood to a very limited degree," said Bassett. "However, since the COVID-19 pandemic began, more people have become familiar with the words 'infection prevention.' People in general seem to have developed a new interest and knowledge of hand hygiene, disinfection of surface and disease transmission, amongst other infection prevention-related items. Since we are essentially the experts on COVID recommendations within the hospital, we receive calls and emails frequently for guidance on this topic."

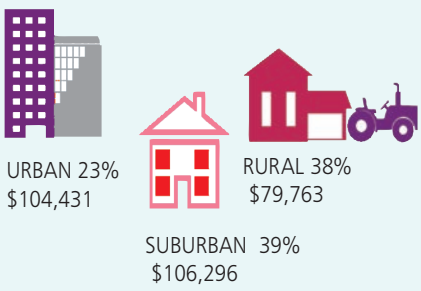
"In addition to COVID though, we have seen throughout the country, increases in hospital acquired infections due to many different factors, like proning of COVID patients, isolation of patients, increases in the number of patients, supply shortages and changes, along with alterations to processes of care," continued Bassett. "So these increases in other infections have also raised awareness about the IP's role. I also believe that the cost related to these infections is on people's radars, so we are seeing more guidance requested from IP on what can be done to mitigate these issues. I feel like more front-line staff are also familiar with terms like CLABSI, CAUTI, MDROs and SSI because of general awareness of infections and more discussions on infection related topics."

"Infection prevention is one of the keys to quality healthcare, good patient outcomes and cost savings," said Conley. "Although, infection preventionists are well known in many ways for this, I think the pandemic has shown what infection preventionists can bring to the table and I hope this acknowledgement continues long past this pandemic." **HPN**

SALARY BY REGION WITH BREAKOUTS BY GENDER



1% of survey respondents chose not to disclose their gender



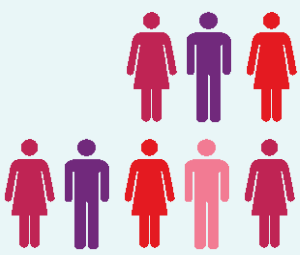
SALARY BY TYPE OF FACILITY

Hospital, standalone	60%	$92,616
IDN/Alliance/Multi-group health system/VHA	32%	$104,341
Behavioral/Psychiatric health facility	3%	$92,700
Surgi-center/Ambulatory center	3%	$85,100
Clinic	2%	$63,333
Long term acute care facility (LTAC)	1%	$90,000

AVERAGE PAY BY GENDER

FEMALE - $95,755 MALE - $91,687

Survey respondents who chose not to disclose their gender are excluded in the averages above



SALARY BY TITLE

Infection Preventionist	26%	$92,019
Infection Prevention/Control Director	23%	$114,177
Infection Prevention/Control Manager	15%	$99,655
Infection Prevention/Control Coordinator	16%	$88,612
Infection Prevention/Control Nurse	14%	$80,037
Infection Prevention/Control Practitioner	3%	$85,500
Quality, Risk Manager	2%	$86,500
Employee Health	1%	$86,750

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May 2021

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LEARNING OBJECTIVES

1. *Describe the difference between immediate use steam sterilization and Short Cycle steam sterilization*
2. *List the steps of Short Cycle validation*
3. *Define quality control needs and reporting*

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SELF-STUDY SERIES

Unmasking Short Cycle sterilization

by Arthur Henderson

During my 30-plus years in operating rooms and sterile processing departments, I believed that choosing the appropriate steam sterilization cycle was a simple task. Terminal steam sterilization is performed on wrapped or containerized instruments if you intend to store these critical medical devices for future use. Immediate-use steam sterilization (IUSS) allows us to use abbreviated cycles for devices that are to be quickly used for a specific case.

However, the introduction of Short Cycles used for ophthalmic device sterilization has challenged the simplicity of this thought process. These Short Cycles use terminal sterilization packaging but have shortened drying times, and the packaged instruments are typically used immediately, though they may be stored. So, should these new cycles be classified as a terminal sterilization process, an immediate-use process, or as something else? Let's see if we can make sense of this.

What is a Short Cycle?

Most healthcare facilities are familiar with terminal sterilization and IUSS. However, the newer Short Cycle defies previous categories. It's a type of terminal sterilization process, but it is unlike the traditional processes used in larger healthcare facilities.

Terminal steam sterilization uses steam to sterilize medical devices held within containers, pouches, and wrapped trays. The devices are dry at the end of the process, which allows them to be placed into storage. That dry condition is very important, since any residual moisture creates an opportunity for microorganisms to contaminate the pack. It also creates an opportunity for devices to be exposed to the corrosive properties of water, which can damage them and shorten their useful life.

In contrast, IUSS uses steam to sterilize medical devices held within containers validated specifically for this process. Devices are typically wet at the end of the sterilization cycle and are used immediately for a specific procedure. How do IUSS cycles differ from terminal sterilization cycles? Simply stated, they have shorter steam exposure times, drying times, or both.

After completing an IUSS cycle, it's important that the devices cool before they are used. Hot instruments can injure staff and patient tissues.

A Short Cycle is a term used by ophthalmic associations and ambulatory care facilities to describe a steam sterilization cycle that uses a shorter drying time than standard terminal sterilization cycles but achieves the same sterilization conditions as terminal sterilization cycles. However, items must be packaged in the same manner as if undergoing terminal steam sterilization, and they must be dry at the completion of the sterilization cycle.

Short Cycles are not included in the standards and guidelines of the Association for the Advancement of Medical Instrumentation (AAMI) or the Association of peri-Operative Registered Nurses (AORN). Instead, this is a cycle specific to ophthalmic instrumentation and is defined by the Centers for Medicare and Medicaid Services (CMS). CMS defines Short Cycles as "a sterilization cycle for a wrapped/contained load that meets the device manufacturer's instructions for

Table 1: Comparison of terminal, IUSS and Short steam sterilization cycles.

Parameter / Condition	Terminal Cycle	IUSS Cycle	Short Cycle
Exposure time	Full	May be shortened	Full
Dry time	Full	0-1 minute	Shortened
Moisture Retention	Dry	Wet	Dry
Storage	May be stored	No Storage	May be stored

use (IFU), is the equivalent of terminal sterilization, and is not IUSS if it includes use of a dry time and is packaged in a wrap or rigid sterilization container intended to be stored for later use." (See Table 1.)

When should you choose a Short Cycle?

As described by the CMS definition, the Short Cycle is an acceptable practice for the steam sterilization of ophthalmic instruments and instrument sets. These sets should contain only lightweight metallic instrumentation. Lightweight metallic instruments heat quickly and produce less condensate, which allows faster drying during the drying phase of a steam sterilizer. This allows for shorter dry times and faster steam sterilization cycles.

The Short Cycle can be used when the IFU of the instrument, containment device, and sterilizer all include the Short Cycle parameters. However, if any one of the above-mentioned IFU do not list the specific cycle parameters, it cannot be used. Furthermore, if the Short Cycle parameters are described as a "flash" or "unwrapped" sterilization cycle in any of those IFU, they are referring to an IUSS cycle and cannot be considered a Short Cycle. Table 2 illustrates some examples.

Short Cycle validation testing

It's difficult to find matching IFU for Short Cycles, especially when the sterilizer dry times are based on the most difficult-to-dry items. Many ophthalmic facilities choose to test and validate a shorter dry time for their ophthalmic instruments so that they can shorten their set turnaround time.

Section 5.7 of ANSI/AAMI ST8 "Hospital Steam Sterilizers" describes a moisture retention test that can be used to validate the ability of a sterilizer to provide dry packs. Healthcare facilities wishing to validate a shorter dry time often refer to this standard.

Hospitals choosing to use this standard as a reference should identify the worst-case load configuration for drying. This load will use the heaviest instrument sets within the containment device that is the hardest to dry. For example, a solid-bottomed container with 17 pounds of metal ophthalmic instrumentation would trap more steam condensate within it than a paper pouch with a single lightweight ophthalmic instrument. The former would be harder to dry and represent a worst-case configuration for drying.

Once the worst-case load has been identified, the desired dry time is determined. The desired dry time is the shortest time that consistently results in dry sets. Often, facilities will run several different dry times to find the right one for their facility.

What about the validation? All testing is done under a protocol with clearly defined test sets and acceptance criteria. The representative sets are prepared and weighed, and the sterilizer loaded. Immediately after the sterilization cycle, the sets are weighed, opened, and examined for residual moisture. There should be no visible moisture on the outside or inside of the containment devices. Additionally, if an absorbent wrapping material is used, it should not have increased in weight by more than 20% of its pre-sterilization weight. This procedure underscores the importance of knowing the weights of all your instrument sets.

The test is repeated two more times. All instruments and containment devices are cleaned, rinsed, and dried per the manufacturers' written IFU, before assembling them for each test cycle. The test is successful when every device in the load for every cycle meets the moisture criteria (none present). Failure of even one pack means the test fails.

All test records, including the test criteria and test results, must be maintained to support the use of the shortened drying time. If changes are made to the containment device, load configuration or instruments in the set, validation testing must be repeated.

Quality assurance for Short Cycles

Quality assurance is an essential part of sterilization. As with any steam sterilization cycle, Short Cycles use a combination of sterilization parameters, biological indicators and chemical indicators to evaluate the efficacy of the sterilization process. Short Cycles are held to the same testing standards as terminal cycles. Any time a failure occurs, it must be investigated and corrected per your facility's policies and procedures. Let's review the criteria necessary for quality assurance.

Sterilization parameters

Sterilization parameters are checked every time a sterilization or test cycle is run on the sterilizer. The cycle printout, recording chart or electronic record is reviewed to ensure that the correct temperature was reached for the required amount of time, all vacuum cycles reached their vacuum point, and the dry time lasted the right amount of time. Any documented cycle alarms and aborts must be recorded, along with the correction for the problem that caused them.

Air removal test/Bowie Dick test

Air removal/Bowie Dick tests are required each day that a vacuum-assisted or prevac steam sterilizer is used. The test pack is the only item placed in the sterilizer, without any items to be sterilized or other test packs. The test finds air leaks and other

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Table 2: IFU comparisons for appropriate use of a Short Cycle

Instrument IFU	Steam Sterilizer IFU	Containment Device IFU	Conclusion
Vacuum assisted 270°F 4 min exposure with 20-minute dry time	Prevac Instrument Cycle: 270°F 4 min exposure with 20-minute dry time	Sterilization Pouch / Prevac 270°F 4 min exposure with 20-minute dry time	All IFU list a 20-minute dry time. The 20-minute dry time can be used.
Gravity 275°F 10 min with 16-minute dry time	Gravity Wrapped Cycle: 275°F 10 min with 60 min air dry	Sterilization Wrap / Gravity 275°F 10 min with 16-minute dry	The sterilizer IFU requires a longer dry time than the instrument and pouch IFU. The longest dry time (60 minutes) must be used.
Vacuum assisted 270°F 4 min exposure with 6-minute dry time	Prevac Unwrapped Cycle: 270°F 4 min exposure with 1-minute dry time	Container / Vacuum assisted 270°F 4 min exposure with 6-minute dry time	The sterilizer IFU lists an Unwrapped Cycle, indicating that this is IUSS and can't be used as a Short Cycle.

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

problems that prevent the sterilizer from getting good steam penetration during sterilization. Sterilizers that fail an air removal test typically need repairs.

Process challenge device/Biological indicator test pack

The process challenge device (PCD) or biological indicator (BI) test pack checks the lethality of the sterilizer. The sterilizer must kill a high population of bacterial spores placed within a pack that steam has trouble penetrating. A process challenge device is run with the first load of the day.

Process challenge devices must be placed in all loads that have implantable devices (medical devices placed in the body for more than 30 days). All loads with process challenge devices are placed in quarantine and shouldn't be used until the results of the BI are known.

A control BI must be incubated every day that a BI test is performed. The control BI shows that spores within the BIs used in the test are alive and that the incubator is functioning. Only tests with positive (growing) control BIs can be used.

A passing BI PCD test must have a negative BI from the PCD and a positive control BI. If the BI PCD test shows growth, then sterilization did not occur, so the items are considered not sterile and can't be used.

Chemical indicators

A chemical indicator (CI) strip is placed inside each pack, container, pouch, or wrapped item to be sterilized. A CI strip should also be placed on every level of multi-level trays. After sterilization, when the pack is opened, the CI is checked. A passing indicator shows that steam made it into the pack. A failing indicator shows that it did not, so the items are considered not sterile and can't be used.

Wet packs

Failing cycle parameters, BIs and/or CIs are all considered evidence of sterilization failures. Another indicator of sterilization failure is residual moisture on packaged instruments after the cycle, also known as wet packs. Wet packs indicate a problem with loading, steam quality or sterilizer performance. Wet packs can be seen on the outside as pooling or wetness on the external surface of the pack. It can also be internal, visible as pooling or water drops on the instruments or items inside a pack when it is opened. If wet items are stored, residual moisture may dry before the pack is opened. In this situation, evidence of residual moisture shows up as water stains or rings. Each wet pack or moisture event must be investigated, and the root cause identified and corrected.

It's important to note that wet packs are still wet packs even if used immediately. In fact, using an item that is wet immediately after sterilization, whether wrapped or not, is defined as an IUSS event.

Short Cycles use abbreviated drying times and can produce wet packs if packaging material weights change, set configurations change, containment devices change, or if the steam supply becomes wet. If Short Cycle wet packs occur, identify the root cause and correct it, and then perform cycle validation again to ensure that the solution worked.

Documentation

All test results, sterility assurance failure investigations and wet pack reviews must be documented. The documentation should include the sterilizer used, results of the test, results of any investigation, the corrective actions taken, and the results of the corrective action.

These records are reviewed by surveyors, so it's important to ensure that they are accurate and complete. It's a good idea to routinely audit documentation practices to ensure that the documents are completed with all required signatures. It is equally important to ensure that all tests have been completed per facility policy and procedures. Surveyors need to confirm that policies and procedures reflect what is actually done in a department.

For example, some tests, such as leak tests, may provide data that should be evaluated for trends. It's also important to audit and document trends when wet packs have been investigated and corrective action has been taken.

Assure Short Cycle best practices

Short Cycles are terminal steam sterilization cycles with a validated dry time that yields dry, terminally packaged items that can be placed in sterile storage. These cycles are typically used for metal ophthalmic instruments that can dry more quickly because of their size and weight.

Before any decision is made to implement Short Cycles, sterile processing managers need to diligently review all applicable device, packaging, and sterilizer IFU to assure that they document the use of similar Short Cycle parameters. If IFU disagree, they must be reconciled. If necessary, a cycle validation should be completed using the department's most challenging Short Cycle loads to prove the effectiveness of shorter drying times. And since quality assurance is just as important for Short Cycles as for any other terminal sterilization process, a quality system should be put in place that includes cycle parameter checks, appropriate tests, trend audits and thorough documentation. A well-run Short Cycle program can help a department improve the efficiency and turnaround of its ophthalmic reprocessing practices. HPN

Arthur Henderson, RN, BA, CNOR, CRCST, CHL, GTS *is a senior clinical education specialist for STERIS Corporation. Prior to STERIS, he served as the coordinator of education for the California Central Service Association, the assistant main OR manager at a large acute-care hospital, and the clinical educator for peri-operative services for another large acute-care facility. Henderson has developed and implemented an OR orientation program and an OR internship program for non-surgical nurses and has coordinated performance improvement and staff development programs for peri-operative services. He also has more than 25 years of experience as a registered nurse in a variety of specialties including GI, open-heart surgery, neurosurgery and cardiothoracic intensive care.*

References:

1. Association for the Advancement of Medical Instrumentation; *ANSI/AAMI ST79:2017 & 2020 Amendments A1, A2, A3, A4 (Consolidated Text) Comprehensive guide to steam sterilization and sterility assurance in health care facilities*. Arlington, VA.

2. Association for the Advancement of Medical Instrumentation; *ANSI/AAMI ST8:2013/(R)2018 Hospital Steam Sterilizers*. Arlington, VA

3. Center for Clinical Standards and Quality/Survey & Certification Group; *Change in Terminology and Update of Survey and Certification (S&C) Memorandum 09-55 Regarding Immediate Use Steam Sterilization (IUSS) in Surgical Settings*. Centers for Medicare and Medicaid Services, 2014. Accessed 3/17/2021, https://www.cms.gov/Medicare/Provider-Enrollment-and-Certification/SurveyCertificationGenInfo/Downloads/Survey-and-Cert-Letter-14-44.pdf

CONTINUING EDUCATION TEST • MAY 2021

Unmasking Short Cycle sterilization

Circle the one correct answer:

1. **Why must packs be dry after steam sterilization?**
   a. It allows sterile storage
   b. It makes them lighter
   c. It protects packaging from degradation
   d. It allows immediate use

2. **What makes IUSS cycles different from terminal cycles?**
   a. Short dry time and long exposures
   b. Long dry time and short exposures
   c. Short dry time and short exposure times
   d. They are the same

3. **Which medical specialty uses Short Cycles?**
   a. Obstetrics
   b. Occupational Therapy
   c. Ophthalmic
   d. Orthopedic

4. **What type of cycle is a Short Cycle?**
   a. Ethylene oxide
   b. Terminal
   c. Immediate Use Steam Sterilization (IUSS)
   d. It is not a sterilization cycle

5. **A Short Cycle can be used when the device, sterilizer, and packaging IFU list the same cycle parameters.**
   a. True
   b. False

6. **Which standard describes validation of dry times?**
   a. ANSI/AAMI ST8
   b. ANSI/AAMI ST79
   c. ANSI/AAMI ST58
   d. ANSI/AAMI ST90

7. **Which criteria must be met for validation of short dry times?**
   a. Dry on the inside but outside moisture is okay
   b. Dry on the outside but inside moisture is okay
   c. Dry on the outside and inside
   d. Any moisture found dries in five minutes

8. **Which is a quality assurance test used for Short Cycles?**
   a. Protein test
   b. Wet pack test
   c. Competency test
   d. Process challenge device/Biological indicator test pack

9. **Where are chemical indicator strips placed?**
   a. Taped to the sterilizer rack
   b. Taped to the outside of a pack
   c. Placed above the sterilizer's drain
   d. Inside a pack/container to be sterilized

10. **A wet pack discovered after a terminal or Short Cycle is considered a sterilization failure.**
    a. True
    b. False

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Supply shortages continue to disrupt healthcare, SPD

by David Taylor III, MSN, RN, CNOR

Although many disruptions to healthcare supply chain networks have occurred in the past, none has been so widespread as the shortages experienced during the past year-plus as a result of the global pandemic. First, it was N95 respirators and other personal protective equipment (PPE) and oxygen tanks and ventilators — but the list of shortages continues to grow, and manufacturers and end users continue to scramble. Understandably, many healthcare professionals are left asking, "What's next?"

Because of supply chain optimization efforts, many organizations have long embraced just-in-time inventory, only keeping a modest inventory of healthcare supplies in anticipation of future demand. This is an understandable approach because it's more cost-effective than tying up money for supplies that will sit on a shelf; however, the pandemic proved challenging for facilities that lacked stockpiled supplies to get them through the wave of shortages.

Identifying shortages

Healthcare facilities — including hospitals, ambulatory surgery centers, physician offices and long-term care and rehabilitative care centers — waste critical time searching for depleted supplies, and some have had to turn to the decontamination of single-use supplies to fill the void. The U.S. Food and Drug Administration (FDA) established for the first time ever a medical supply shortage list website in an effort to improve communication.[1]

In March 2021, professional organizations such as the International Association of Healthcare Central Service Materiel Management (IAHCSMM) and the Association of periOperative Registered Nurses (AORN) released communications to notify their members that sterilization wrap shortages may be looming and could have a significant impact on surgical services across the country. *(See sidebar for IAHCSMM's statement)*

It's important to note that the sterilization wrap manufacturing process is similar to other products (e.g., filters, biologicals and dart test packaging). Some experts are now predicting that medical supply shortages could last for some time and will require a strategic plan to mitigate the effects.

Exploring alternatives

Sterilization wrap has been around a long time. In recent years, it has become stronger and more durable to provide better protection and resist tears. It also comes in a variety of sizes, making it an especially convenient and a heavily relied upon supply for Sterile Processing departments (SPDs). If sterilization wrap shortages affect hospitals and surgery centers in the same way PPE shortages did, it's easy to see how surgical programs will be significantly and negatively impacted.

One alternative solution to sterilization wrap is the use of rigid sterilization containers. These also come in a variety of sizes, are produced by numerous manufacturers and provide a reusable, sustainable alternative for sterilizing instrumentation. Many organizations have incorporated rigid sterilization containers into their SPD departments as a way to reduce the amount of sterilization wrap needed within their facility. Keep in mind, however, that many of these containers require a filter, which may be made from similar material as sterilization wrap.

It's important for manufacturers to be consulted with any questions or concerns regarding their products' use, handling and availability, and to establish multidisciplinary purchasing committees to explore the best options for the facility/healthcare organization to help mitigate any supply shortage risks, now and in the future.

Planning ahead

The need for healthcare organizations to manage their supplies effectively to maximize the benefits for patients and employees remains critical, and it's a need that should be explored well after the pandemic. If supply chain disruption is not managed properly, these shortages will threaten the delivery of patient care and, potentially, compromise the safety of healthcare workers. HPN

IAHCSMM Statement on Sterilization Packaging Shortage

IAHCSMM is aware of reports of sterilization wrap shortages throughout the U.S. These shortages may require facilities to consider alternative packaging. If your facility is considering implementing alternative packaging, be certain to ensure that:

1. The product is cleared by the FDA for use as sterilization packaging.
2. Your facility follows standards and guidelines when using the product.
3. Your facility follows the instructions for use of the packaging, sterilizer, and devices to be sterilized.
4. Appropriate testing is completed before use.
5. All user (Sterile Processing) and end users (Operating Room and other procedural areas) are educated on proper use of the products.

Specific Resources include:

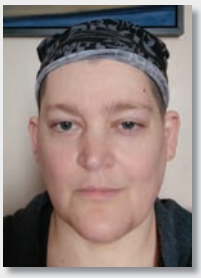
- ANSI/AAMI ST65, *Processing of reusable surgical textiles for use in health care facilities*
- ANSI/AAMI ST79, *Comprehensive guide to steam sterilization and sterility assurance in health care facilities*
  - Section 9 (p. 50), *Packaging*
  - Section 10 (p. 61), *Sterilization*
  - Annex H (p.142), *Development of a prepurchase evaluation protocol for rigid container systems*
- AORN Guidelines for Perioperative Practice (2021), Packaging Systems (pp. 571-590)
- AORN Guidelines for Perioperative Practice (2021), Sterilization, Steam sterilization 5.5 (pp. 994-995), www.aorn.org

Reference

1. U.S. Food and Drug Administration. Medical Device Shortages During the COVID-19 Public Health Emergency, https://www.fda.gov/medical-devices/coronavirus-covid-19-and-medical-devices/medical-device-shortages-during-covid-19-public-health-emergency

David L. Taylor III, MSN, RN, CNOR is the principal of Resolute Advisory Group, a healthcare consulting firm in San Antonio, TX. He has served as a contributing author for IAHCSMM since 2019. Questions or comments can be emailed directly to David@ResoluteAdvisoryGroup.com.

3 critical do's and don'ts for handling sterile packaging



by Michele DeMeo, with Contributors: Stephen Kovach, Sue Klacik, Jane Severin, Jon Wilder

Three critical practices can ensure sterile goods are delivered to the point of use undamaged, sterile, and safe for patient use. These practices are not exhaustive but provide a guideline in these changing times with rapidly emerging new viruses and other pathogens. While they may seem to be common sense, we have found that the best way to ensure something is understood is by repeating it. Why? New people come into the perioperative, material management, and sterile processing professions who need to learn. Sometimes "we've always done it this way may not be the best way." *Note: Always follow the CDC's guidelines for handwashing.*

1. Using proper hand hygiene

- Properly perform hand hygiene after breaking down any external cardboard shipping boxes or other external shipping containment devices.
- At the start and close of each shift, at a bare minimum, disinfect the assembly workstation or worktable with an EPA-registered surface disinfectant adhering to the procedure in its instructions for use (IFU).
- Properly perform hand hygiene before preparing or handling items in sterile packaging.
- Always make sure your hands are completely dry before handling items in sterile packaging.
- Do not eat or drink after washing your hands or handling (or packaging) items in sterile packaging.

2. Storing, transferring sterile goods

- Check and ensure that any storage area for sterile goods has been properly cleaned according to each State's infection control regulations as provided by their Health and Human Services Department and meets the recommendations of AAMI ST79:2017 Section 11.1: Sterile Storage.
- Rotate sterile items from "first-in" to "first-out" by placing the newest items towards the storage bin area's back. Reducing the risk of contamination is achieved through minimal handling.
- Do not transport sterile items on a dirty cart or store them with used or contaminated items.
- Do not store items in sterile packaging under sinks.
- Transport sterile items in a manner that will prevent the package from puncture or contamination from moisture, excessive humidity, condensation, insects, vermin, dust and dirt, and excessive pressure. Included in this list are:
- not overcrowding bins or cabinets,
- not using rubber bands or clips to bind items together or hang them to "fit them all in."

These practices may damage or destroy the sterile barrier.

- Refer to the product's IFU for storage conditions. Exposing some items to light or UV sources should not be allowed. Also, wiping packages with disinfectants should not be permitted. Otherwise, contaminants may get into the sterile container and render the item non-sterile or create toxic residues.
- Just before storing items, take an additional look and inspect the item and packaging for any signs of compromise such as, but not limited to:
  - staining on the packaging,
  - proof of sterility,
  - worn areas,
  - tears - regardless of size,
  - improper packaging (wrong type, wrong method of wrapping or containment, wrong type of packaging or containment device for sterilization modality and kind).

Note: Performing these sterile inspection criteria should occur before items are issued from the last release point; Sterile Processing & Distribution (SPD) for in-house processing, or Materials Management (MM), Shipping and Receiving, etc.

- Return transfer cart, bin, or other devices to SPD, MM, or other designated department origin or area for subsequent cleaning and disinfection after items are issued.
- Return any compromised sterile goods for processing and return to the vendor or other response prescribed by facility policy.
- Properly perform hand hygiene at the end of this final task and before entry into your next assignment area.
- Do not put sterile packages in pockets, hold them with your mouth, or carry them outside the facility or staff break areas.
- Assume an item is contaminated if it is dropped on the floor or an unclean surface. Do not use it.

3. Handling, opening sterile goods

- Ensure your transfer cart, bin, or other device has been properly disinfected before placing items ready to be transferred.
  - If there is any question about disinfecting your transfer cart, refer to the disinfectant's IFU before disinfecting.
- Properly perform hand hygiene before you touch the package and transfer sterile goods to their secondary and/or final storage staging area and before the point of use.
- Re-perform hand hygiene should you inadvertently contaminate your hands, including touching your face or potentially soiled surface in the process of moving and transferring sterile goods.
- Thoroughly inspect the package. Take one last look and inspect the item and packaging for any signs of compromise, such as but not limited to the following: staining or watermarks on the packaging, proof of sterility, worn areas, tears-regardless of size, improper packaging (wrong type, wrong method of wrapping or containment), expiration date.
- Re-perform hand hygiene properly.

The above three steps will help maintain the integrity of the sterile barrier of products within your facility to better ensure safe use. Failure in any of the above steps and tips present risks that may create a host of scenarios, but by far, the most important is the potential spread and transfer of pathogenic organisms. These simple reminders serve to highlight how relatively simple it can be to keep sterile goods sterile and safe for all when these principles are consistently applied. **HPN**

Michelle DeMeo,CPSDT, CRCST is an independent consultant and retired HPN Editorial Advisory Board member.

SUBMIT YOUR QUESTIONS:
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To be hand in glove with safe practices

by Stephen Kovach

Q I saw a staff member donning his gloves for work in decontamination not wash his hands. Is this the correct practice?

A As with any practice, and especially with gloves, facilities should have a standard way of donning gloves at their facility based on standards, guidelines and the glove manufacturers' instructions for use (IFU). There are a set of "Best Practice Common Steps" that should always be followed no matter where you are donning gloves.

1. Wash hands with soap and water for 20 seconds before putting on gloves.
2. Close the proper glove for the task at hand from the inventory provided.
   a. Wear properly fitting gloves with a close fit around fingers and wrists to reduce the risk of exposure.
   b. If wearing any type of gown, make sure the gloves extend at least over the cuff of the gown.
3. Never reuse or wash single-use or exam gloves.
4. Never use damaged or visibly soiled gloves.
5. Do not touch your face while wearing gloves.

So, from the information in your question, I would say yes, the person did not follow this best practice for donning gloves.

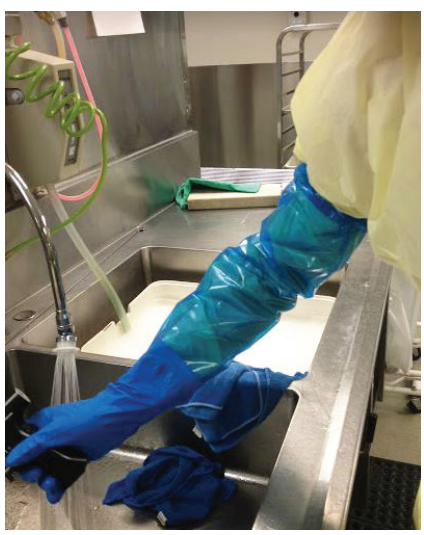

Photo courtesy: Stephen Kovach

Q Is there a thickness that gloves need to be for working in decontamination?

A When we talk about gloves, there is a lot of guidance to be reviewed. We need to look at least to the FDA, ANSI/AAMI, OSHA, and ASTM standards and guidelines to answer your question.

The type of glove that a staff member uses should be based on the type of procedure to be performed (e.g., surgical versus nonsurgical or housekeeping procedures). Medical-grade nonsterile examination gloves and sterile surgical gloves are medical devices regulated by the U.S. Food and Drug Administration (FDA). The FDA does not regulate general-purpose utility gloves because they are not promoted for medical use. Sterile surgical gloves must meet standards for sterility assurance established by the FDA and are less likely than nonsterile examination gloves to harbor pathogens that may contaminate an operative wound. [1]

When we review information in ANSI/AAMI ST79, it does not get specific with a stated thickness. The standard instead gives characteristics that gloves should have for working in decontamination. The term for this type of glove is a utility glove. Utility gloves should be fitted at the wrist, prevent contact of the wearer's skin with contaminated water, and have cuffs that extend beyond the gown's cuff. It also states that a medical examination glove should not be used in decontamination, as it is not puncture- or cut-resistant. I would suggest that the facility decide on glove thickness by performing a risk assessment. Consider things like the type of tasks staff perform, how dexterous people need to be, and the risk of exposure to help decide on the thickness of gloves.

With Occupational Safety and Health Administration (OSHA), we find the following statements backing up the assessment approach to selecting adequate glove thickness and design.[2]

- 1910.138(a) - General requirements. Employers shall select and require employees to use appropriate hand protection when employees' hands are exposed to hazards such as skin absorption of harmful substances; severe cuts or lacerations; severe abrasions; punctures; chemical burns; thermal burns; and harmful temperature extremes.
- 1910.138(b) Section. Employees shall base the selection of the appropriate hand protection on evaluating the performance characteristics of the hand protection relative to the task(s) to be performed, conditions present, duration of use, and the hazards and potential hazards identified.

Gloves, depending on how they are used in medical facilities, have various standards and tests that they need to comply with. Some of them are from the American National Standards Institute (ANSI), which provides a guideline for the selection of hand protection (ANSI/ISEA 105). This guideline gives manufacturers a mechanism to classify their products for specified areas of glove performance. The following American Society for Testing and Materials (ASTM) guidelines also address glove usage.

- ASTM D5151, Test Method for Detection of Holes in Medical Gloves
- ASTM F1671, Test method to show gloves' ability to protect against microorganisms.
- ASTM F1790, Standard Test Method for Measuring Cut Resistance of Materials Used in Protective Clothing

Thus, facilities should perform a proper risk assessment and involve the staff who will be using the gloves. By doing that, I feel a policy can be implemented to address all the concerns of the proper glove to be used in the decontamination area, including its thickness. HPN

Note: Glove thickness is stated in either mils or gauge. A 10-gauge glove equals 10 mils or 0.010 inches. When choosing your glove, look for the stated thickness on the manufacturer's test data.

References

1. https://www.osap.org/page/FAQPPE20154/FAQ--Personal-Protective-Equipment--2015.htm?page=AboutOSAPContact

2. https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.138

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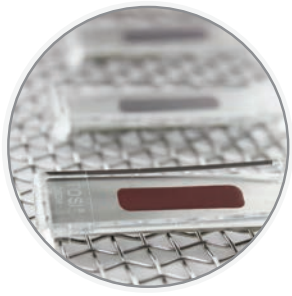

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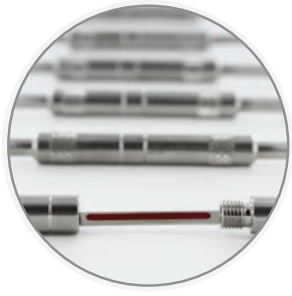

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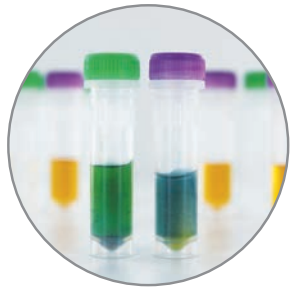

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Pandemic pitch-in promotes partnership

SPD staff drawn outside comfort zone to assist in maintaining equipment, workspace safety for patient care

by Ebony Smith

Photo credit: magdal3na | stock.adobe.com

One common thread woven throughout the ongoing COVID-19 public health emergency is flexibility.

Healthcare has faced multiple changes and challenges. Staff have adapted their schedules, workloads, workspaces, personal protective equipment (PPE) and practices to meet the needs of patient care and safety for all in hospitals, ORs and healthcare facilities.

Sterile Processing and Distribution (SPD) departments play an essential role in care and infection control in medical environments. SPD technicians must consistently achieve the highest standards and practices in reprocessing and delivering clean and sterile instruments, devices and equipment for safe use on patients undergoing surgical or critical care procedures.

The pandemic, however, has thrown many curve balls at healthcare and SPD. The impact is widespread, including declining elective surgeries, increased hygiene and cleaning safety measures, PPE shortages, schedule shifts or cuts and additional needs in other areas of care, to name a few. SPD professionals, though, have stepped up to the plate, changed the line-up and provided necessary services in SPD and other departments within their settings.

Work rotation, support

During the ensuing COVID-19 crisis, what are the biggest challenges in SPD departments, staffing and workplaces?

"Two of the biggest challenges in SPD departments during the pandemic are related: fluctuating staffing needs and facility financial stress," indicated Casey Stanislaus Czarnowski, BA, CRCST, CSPDT, CIS, CER, Perioperative Educator for Sterile Processing. "With continual changes in the types of surgeries that facilities are allowing, the need for technician power has fluctuated greatly. Many hospitals have had to lay off permanent staff or cancel traveler contracts during restrictions on elective procedures, and then have had to attempt to recall staff when procedures again opened up. This has exacerbated the financial stress that facilities were feeling due to overtime, staff illness, and limited surgery schedules."

Casey Czarnowski

M Health Fairview's Central Sterile Services Department (CSSD) pulled together to accommodate infection control safety protocols at the facility, as well as staff work arrangements needed as a result of the pandemic, notes the department director, Lori L Ferrer, BS, CST, CRCST. The department is the recipient of *Healthcare Purchasing News*' 2020 Sterile Processing Department of the Year.

Lori Ferrer

"Fear was evident in all of us from the onset of the pandemic," Ferrer emphasized. "Our team focused on staying positive and diligent about the safety for ourselves, colleagues, visitors and our patients. Masking, social distancing and constant change in our work practices converted into our new norm. We are fortunate to have a strong, resilient team with many years of experience."

She added, "Our biggest challenge was our fluctuating staffing needs. Our daily routines were tossed out and a new way of thinking, acting and working emerged. Work commitments were difficult for team members personally and professionally. School-age children were now at home learning remotely with parents now scrambling to find child care so they could go to work. As surgical volumes resume, we need to evaluate our FTE budget to fill the vacancies that transpired during the pandemic months."

Jeff Paquet, CEO, mmic Medical Systems, observes a pause in improvements to SPD work settings as facilities remain focused on the crisis and care.

"The biggest challenges we have seen in the industry is that hospitals have largely put on hold capital improvement projects in SPD departments," Paquet indicated. "Most renovations are being driven by deficiencies in workspaces or equipment. Against the backdrop of dealing with the challenges of the pandemic, SPD staff had to continue to do their jobs to the best of their abilities in work areas and with equipment that made their jobs more difficult."

As surgery volumes dipped, SPD turned to supporting other work within facilities, points out Amy Flynn, OR/CS Market Manager, Hänel Storage Systems.

"When surgeries were first cancelled, SPDs should have had the opportunity to evaluate their storage situations with appropriate improvements in terms of floor space and inventory control," Flynn shared. "Instead, SPD staff were shifted to other areas in the hospital where they could best contribute against COVID-19 in an 'all hands on deck' approach."

Cheron M Rojo, AA, CRCST, CIS, CER, CFER, CHL, Clinical Educator Coordinator-SPD, Healthmark Industries, highlights changes in duties and lives of SPD staff impacted by the crisis.


Cheron Rojo

"Sterile Processing technicians have endured a life-changing endeavor personally and professionally with the pandemic," Rojo expressed. "The cancellation of elective surgeries affected sterile processing technicians by being laid off or furloughed, or having unique fluctuating schedules. The processing of surgical masks, being runners for medical equipment, and other added new tasks, like helping with patients on the nursing floor, were other changes in the world of the sterile processing department during the pandemic."

M Health Fairview's CSSD team, consequently, extended their support to one another in their department, notes Ferrer.

"Some time ago, we had implemented an orientation for all of the team members to be cross trained on all of our major functions within our area," she explained. "As our staffing fluctuated throughout the last year, the cross training has benefited when assignments had to be rearranged to meet the workflow. It has been difficult managing ongoing department education with other priorities trumping our focus."

Training, education, protection

In their current positions, what do SPD technicians need to achieve best standards, practices and outcomes?

"Two of the greatest needs of SPD technicians are access to information and timely and coherent education," Czarnowski recommended. "Front-line technicians need to have IFUs readily available to them in real time, so that when they are performing their part of the reprocessing cycle on an instrument, they can quickly and easily understand their instructions and promote the safety of their patients."

He continued, "When a new instrument is ordered by a facility, technicians must be thoroughly trained in the reprocessing steps for the instrumentation, both in a clear way and in a timely manner, before the instrumentation will be used in a procedure, so that they may clean and sterilize the instrumentation in a way that is safe for the facilities' investment and for their patients."

In terms of adapting to temporary work environments, SPD staff should have a seat at the planning table, suggests Janet Lumbra, Director of Business Development, mmic Medical Systems.

"It is mmic's experience that SPD projects conducted in our temporary facilities are most successful when engaging the sterile processing staff in the planning process for use of the temporary facility," Lumbra indicated. "They know what to expect in the fixed facility, so they are best equipped to transfer that knowledge to plan the move to the temporary facility. Staff training on equipment, along with the sterile processing equipment's instructions for use (IFU) and familiarization with the temporary facility's workflow, assure their 'buy-in' to achieve overall project success."

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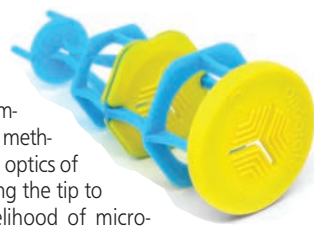

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SPD RESOURCE GUIDE

Flynn shares that "proper amount of infection control and inventory management" is essential in SPD and their work.

"The Hänel Rotomat is a six-sided box with a single access door that can be closed, shielding sterile items from various pathogens," she explained. "Within a Rotomat, sterile instruments and supplies remain sterile. Inventory can also be tracked several different ways, so that each transaction with the machine keeps a 'fingerprint' of who stored supplies and who removed them from storage, as well as supply levels and expiration dates."

Successful outcomes for Hänel's storage, for example, include, "One of our customers was cited by OSHA for poor ergonomics," Flynn indicated. "SPD staff were bending over and climbing ladders to reach supplies to send them to the OR; our Rotomat automated vertical carousel now brings their supplies to the proper ergonomic height every time, with no need to bend or extend. Another customer was cited by The Joint Commission for storing unsterile trays; they chose Hänel for inventory security, so that their sterile trays would remain sterile."

With regard to staff PPE and protection, Ferrer points to M Health Fairview's CSSD's partnerships on disinfection and reuse of N95 masks.

"It was a challenge to obtain enough PPE through the first months of the pandemic to meet our department needs," Ferrer explained. "We conserved our supply by reusing some of the masks and shields throughout shifts. We participated in collaboration with others across many areas to research, study and develop evidence-based practices for reprocessing disposable items."

She added, "With our lower surgical volumes, our team was able to assist in assembling and sterilizing thousands of test kits and worked closely with the lab and compounding pharmacy. There was an additional need to conserve our N95 mask inventory for our frontline caregivers. Collaborative efforts between our academic, industry and healthcare experts established our Ultraviolet Germicidal Irradiation (UVGI) program that was set up and coordinated by assigned individuals of our CSSD team. In areas where we otherwise go unnoticed, we were able to meet and speak with departments about who we are and share what we do."

On a broader level, healthcare, infection control and safety standards should guide the way in SPD practice, stresses Damien Berg, BA, BS, CRCST, AAMIF, Regional Sterile Processing Manager for UCHealth and Direct Manager for Medical Center of the Rockies, Poudre Valley Hospital and Greeley Hospitals.

Damien Berg

"The true best practice is to understand the standards and best practices as outlined and recommended by organizations such as AAMI, IAHCSMM, AORN, APIC and many others; these organizations help the end user not only understand the how but more importantly the why in what they do," Berg emphasized. "I recommend that each organization invest in the staff to learn and encourage the leadership to support and provide the resources to the departments to not only know the best practices but stay on top of what changes. So, keep learning, keep studying, and keep striving to be the best and bring out the best in your teams when it comes to sterile processing."

Future adaptation, growth

Post-COVID-19, how can SPD staff advance in their profession, practices and performance?

Czarnowski suggests that SPD go "back to the fundamentals."

He continued, "SPD staff must have real-time, effortless access to IFUs, SDS' and facility policies in order to keep their patients and themselves as safe as possible. They must have adequate facilities, designed with cleanliness, efficient workflow, and safety in mind. Finally, they must have the opportunity to continually grow technically, professionally and personally through regular, dedicated education."

Enhancing SPD department practices and facility bottom lines are other areas of focus, shares Ferrer.

"As responsible financial stewards, we will continue to be diligent in our staffing and budgeting endeavors," she stated. "We will continue to solicit feedback from our team regarding areas for process improvements. Where can we be more efficient? Where are we able to contain costs? Look at opportunities to evaluate reusable product substitutions in the event of national and worldwide shortages."

Other areas of concentration are safe SPD work settings and equipment and infection transmission control among workers, notes Flynn.

"A post-COVID SPD can succeed with the proper amount of floor space to function and by limiting the handling of sterile supplies," she said. "For the past year, we've heard that the best way to mitigate the coronavirus is through social distancing, keeping six feet apart and avoiding touching common surfaces. Yet, in some SPDs, it's impossible to accomplish those things because of cramped quarters and violating the 'three touch rule.'"

Paquet points to SPD workplace improvements as a priority area.

"Since 2013, depreciation has outpaced capital investments in the U.S healthcare market," he noted. "Hospitals need to turn their attention to their SPD projects to ensure they are delivering the necessary standard of care for their patients."

SPD recognition, pride and connection are other areas of attention.

For instance, Pure Processing LLC, a developer and provider of reprocessing sinks, assembly tables, technologies, and accessories for healthcare reprocessing departments, recently launched the "LuvDecon online community (https://www.facebook.com/groups/luvdecon) to raise awareness of the importance of decontamination processes in central sterile processing departments and celebrate reprocessing professionals who make patient safety a priority...By being a source of support, the LuvDecon community can combat perceptions, increase respect for the profession, and bring awareness to one of the hospital's most foundational steps to patient care: proper manual cleaning."[1]

Rojo predicts continued growth with SPD's status and service in patient care.

"Sterile processing technicians have always been a vital piece in the fight for better patient outcomes and will continue to be even more in the future," he expressed. "The post-pandemic sterile processing technician will be known as adaptable and a collaborator and will solidify their reputation in patient safety."

Certification, technology and education will lead the way to SPD success, anticipates Berg.

"I envision professional, well-educated sterile processing techs who are certified in their profession, proud of what they do and competent in the craft of providing clean, sterile and functioning instruments/equipment and services, not only to our patients but to the other professionals who depend on what we do day in and day out," he stated. "I see the future using the latest in technology to aid them, such as on-demand or virtual education combined with the latest standards to adapt for our challenging environment. I know that our technicians have the passion, skill and ability not only to meet the tomorrow but help define it, so we are better off for many years to come." **HPN**

References:

1. PURE PROCESSING LAUNCHES LUVDECON ONLINE COMMUNITY, https://pure-processing.com/wp-content/uploads/2021/03/LuvDecon-PressRelease-vf-1.pdf

***Vendor Listings**, page 38*

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Pandemic response primes most intense just-in-time, last-mile logistics projects

Are non-acute care facilities truly ready to roll or merely rolling the dice?

by Rick Dana Barlow

Photo credit: scaliger | stock.adobe.com

Someone designated "supply chain" as a convenient target – if not scapegoat – for just about everything going wrong with the COVID-19 vaccine allocation on a federal, state and even local level.

Of course, much depends on how critics define the concept of "supply chain," which involves a number of functional components intricately linked to forge a comprehensive process of getting a product or service to one point from another while ricocheting off elements of incompetence, inefficiencies and intricacies in political machinations and maneuvering.

Technically, supply chain comprises ordering, purchasing, contracting and distributing components, among others. Each one of those components is fueled by subcomponents, such as demand forecasting and planning, product/service evaluation and value analysis (clinical or otherwise) and storing. These elements encompass the provider-consumer-buyer side.

On the supplier-producer-manufacturer side, supply chain involves raw material strategic sourcing, research and development, design, molding and mass production and packaging as well as distribution, logistics and transportation.

Either of these intertwined supply chains hinge on what federal regulators like the Food and Drug Administration (FDA) allow. For the pandemic, the FDA fast-tracked approvals and clearances for vaccines with nary a concern about procedural consequences and repercussions – not the safety of the vaccines but the notion that if "desperate times call for desperate measures" that do not generate dire outcomes then maybe the complicated processes during "normal" times can be streamlined effectively.

While the pandemic shook the very core and foundation of the healthcare industry from clinical to financial to operational to supply chain during the initial year that concluded in March, it largely concentrated the pressure on acute-care hospitals for treatment and testing, non-acute care facilities for testing and retail outlets for available supplies. With the emergence of several vaccines during the last few months, the balance has shifted more to non-acute care facilities to administer the vaccines to tens of millions of citizens at physician practices, urgent care centers, long-term care facilities (LTCs), retail pharmacies, supermarkets and a growing number of "mass vaccination centers" (MVCs) managed by state, county and local departments of public health.

Some of these MVCs may reside in gyms and stadia, vacated department store buildings, temporary/tented buildings in parking lots, etc. These MVCs may be staffed by doctors, nurses, military or other professionals with varying degrees of clinical training.

But questions remain about their experience and expertise in such operational components as distribution, inventory management and logistics during the "last mile" of a supply chain, which includes the point of care or point of use.

Uprooting the root cause(s)

The last few months of vaccine administration among non-acute care facilities have yielded varying results that spanned successful completions to frustrations and finger pointing, arguably with plenty of blame to go around.

As the United States lumbers into Year 2 of the pandemic, uncertainties abound among COVID-19 vaccine production, distribution and administration.

"I predict we'll see at least a few instances of duct tape covering cracks in the walls," noted Cory Turner, CMRP, Senior Director, Healthcare Strategy, Tecsys Inc. "Any suggestion that this vaccine distribution process will be smooth as it scales should give you pause; not because of a particular technology or policy, but because you've got a whole lot of people doing a bunch of new things, and that's a recipe for human error."


Cory Turner

The demanding logistical pressures placed on non-acute care facilities administering COVID-19 vaccine doses alone will expose the inherent complexities of supply chain operations that the general public rarely sees, recognizes or minds.

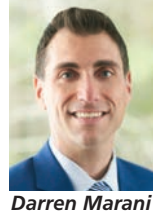
"As this effort scales, we will be stitching together non-specialized staff, siloed

systems and technology gaps," Turner continued. "Then things get thorny. How much do you have that's available-to-promise? What's your pipeline inventory? What happens if your next tier of eligibility is bigger or smaller than expected? Sure, we can sit on supply buffers and reschedule appointments when we stock out, and we'll make it out the other side vaccinated, if not a little shell-shocked. But without expert supply chain orchestration, all those other problems are not only going to surface, they're going to bubble over."

Any lack of non-acute supply logistics expertise can be disastrous, according to Turner.

"Often, supply chain is about putting out fires before the flames of disruption are fanned," he noted, "so, while challenges across the board are to be expected, a lack of supply chain expertise is likely to add fuel to those problems. We're talking about the largest scale and arguably most complex just-in-time last-mile distribution effort in history, and every link in the supply chain needs to be strong and connected so that vaccines move one way, and data moves the other. Without both those things flowing smoothly, there will be a kink in the chain."

Darren Marani, Senior Vice President, Non-acute and Inside Sales, Cardinal Health Inc., points to several mitigating factors.

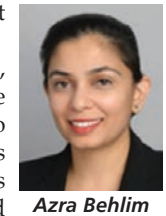

Darren Marani

"Non-acute care facilities have faced several obstacles when it comes to obtaining enough COVID-19 vaccines to meet the demand," Marani observed. "The two most prevalent constraints are centered on market type and acquisition options. To date, vaccine distribution has been limited to retail pharmacies and long-term care facilities via a single pharmaceutical distributor. This creates issues with product selection, facility staffing and patient access. Logistics remains a challenge for geographically remote facilities, as well as the additional storage space needed for the vaccines."

Initially, however, the industry faced a seminal problem from a confluence of factors, according to Jamie Chasteen, Director of Corporate Development, Cold Chain Technologies.

"The big challenge for non-acute facilities was the same as for everyone at the regional, state and local level," Chasteen noted. "All organizations, whether public or private, were left to figure out vaccine supply, storage and distribution on their own. This causes duplicated work and cost and potentially runs the risk that many organizations will implement the wrong products or procedures, which could cause spoilage and waste or, even worse, adverse patient results due to improper handling and storage." Compounding the challenge? One of two early vaccines required specific temperature limits.

Azra Behlim, Senior Director, Contract Services, Pharmacy, Vizient Inc., argues that the data requirements for submission to the federal government pose the first problem.


Azra Behlim

"In pandemic planning, the timely and accurate transmission of data to the federal stakeholder is critical so that stakeholders can monitor progress and identify any opportunities for improvements," Behlim said. "In the COVID-19 vaccine administration, many non-acute care facilities struggle without the correct infrastructure or technology to communicate regularly in an electronic format with the pertinent required data fields."

Initially, limited supply availability through production leads the charge, asserts John Jordan, Vice President, Pharmacy Field Services, Premier Alternate Site Programs. The cascade of concerns progress from there.


John Jordan

"As vaccine supply increases over the coming weeks and months, distribution and logistics will become the biggest obstacle," Jordan predicted. "With vaccine allocations and distribution managed by the federal government, providers must work directly with their state/local jurisdictions or the Centers for Disease Control and Prevention (CDC) in order to become a COVID-19 vaccine administrator.

"The storage, handling and data reporting requirements are also challenging for many providers, creating a barrier for many smaller, community healthcare organizations," Jordan continued. "Vaccine access may differ depending on provider or facility type as well. Retail and long-term care pharmacies have generally been part of the federal partner program for accessing vaccines, while access for other provider types varies by jurisdiction."

Scrambling for limited supply quantities can be traced to faulty forecasting, according to Wesley Crampton, COO, Medspeed.


Wesley Crampton

"While there have been a number of roadblocks, demand planning is likely the leading challenge," Crampton asserted. "Non-acute care facilities rely on federal allocation and state vaccination rollout plans to provide vaccines to their patients and communities. Limited information has been given by governmental entities regarding the expected allocations and distribution timelines. At the same time, healthcare leaders are trying to understand patient refusal rates and no-show frequency. All of this results in incredibly difficult planning that requires a logistics infrastructure with end-to-end agility – something that is difficult for certain types of non-acute facilities to accomplish."

Cold chain requirements for at least one of the available vaccine products proved a compounding challenge, Crampton acknowledged.

"Product has been shipped and transported in specially designed containers used to maintain temperature state requirements until the time of use," he said. "Initially, many non-acute facilities were not using the Pfizer vaccine because of the ultra-cold storage and short-shelf life in thawed conditions. The FDA update in late February, which allows the Pfizer vaccine to be stored at more conventional freezer temperatures for a period of up to two weeks, was a positive for non-acute vaccination sites – it meant that they could increase capacity for vaccination with ability to use the Pfizer vaccine."

Don't worry, be happy

Ken Fleming, President, Logistyx, encourages people to cut the administrators and the seemingly convoluted processes some slack.


Ken Fleming

"The scale of the operation is massive and requires a great deal of coordination from end to end," Fleming said. "With 50 states employing individual approaches, the lack of a unified system introduces unique variables."

Fleming urges people to think positive.

"With all of that accounted for, the success of the effort to get vaccines into arms has been rather impressive," he indicated. "From a distribution and logistics standpoint, manufacturers have implemented new strategies – like shipping directly from manufacturing sites instead of central distribution warehouses – and created custom shipping containers for cold-chain storage requirements. Carriers have prioritized vaccine shipments, ensuring they have capacity and the cold-chain capabilities to rapidly deliver fresh vaccines when and where they're needed. Vaccination sites have ensured they have the necessary

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cold storage and the personnel on hand to administer the vaccines in rapid fashion.

"Have there been challenges along the way? Of course, but it's also been quite successful," he added.

Fleming highlights the enormous scale and speed of the logistical response as being unprecedented and inspiring at the same time. He outlines the "herculean effort on all fronts" in three ways.

To improve delivery speed: "Manufacturers adjusted distribution networks to ship from new locations like manufacturing sites and added new carriers to their usual mix, while carriers prioritized shipments to ensure space was readily available," he indicated.

To maintain the required temperatures: "Manufacturers designed custom shippers with insulation and dry ice and equipped shipments with GPS thermal sensors to monitor for potential issues; carriers ensured the availability of cold-chain transport; vaccination sites ensured they were equipped with cold storage solutions to keep vaccines fresh," he noted.

To ensure the return of the custom shipping containers: "Manufacturers include return shipping labels in each shipment and automatically trigger an email to the recipient after a designated period to remind them to return the container, greatly simplifying the process for them. They simply hand the container to the carrier who transports it back to the pre-determined destination," he said.

Stacking the deck

Premier's Jordan contends that while manufacturing capacity and supply availability may be the biggest overall challenge in meeting current demand, distribution/logistics represents a close second.

"In order to receive COVID-19 vaccine, providers must first complete the COVID-19 vaccine provider agreement with either their local jurisdiction or their state," he indicated. "The CDC allocates doses to the states/jurisdictions, who, in turn, allocate doses to individual providers.

"The vaccine allocation notification process is a 'just-in-time' process, and many providers have reported not knowing how many doses they will receive or are able to order until 24 hours before the order needs to be placed," he continued. "This gives little time for the organization to schedule appointments, set up infrastructure for large-scale clinics, etc."

Still, Vizient's Behlim remains sternly sanguine and direct: "I do not believe distribution/logistics are a problem as long there are reputable pharmaceutical distributors handling the product," she stated.

Product availability and storage challenges have exacerbated one another, according to Medspeed's Crampton.

"Limited information is being provided to non-acute facilities about product availability and plans for distribution," he noted. "At the same time, some non-acute facilities could not utilize the Pfizer vaccine in meaningful quantities early on because of the extreme storage requirements and short shelf life.

"From a logistics perspective, distribution of the vaccine includes moving the specially designed containers that maintain temperature state and repositioning extra vaccine doses as needed based on demand," Crampton said. "The greatest challenge with logistics is that the uncertainty around product availability leads to faster same-day logistics turnaround time requirements. Communication and tracking systems are critical."

Cardinal Health's Marani cites competing players, priorities and processes as adding to stress levels.

"With primarily retail pharmacies responsible for distribution of the vaccine, staffing is a dominant issue," he said. "This also puts a strain on the remaining responsibilities of a pharmacist. It's important to note the additional duties required for administering the vaccine. The pharmacist must also monitor the patient for 15 minutes after administering the vaccine to ensure no immediate adverse effects. Often, patients choose to leave immediately after vaccination if the pharmacy staff has moved to the next patient."

Product selection can be challenging, too. "Patients may want a specific version of the vaccine, e.g., Moderna, Pfizer or Johnson & Johnson," he continued. "Patients register for the vaccine online and do not get preference of what vaccine they will be given. And, unfortunately, pharmacies can't choose. There is currently little to no control of what vaccine will be given for the first dose at a non-acute facility.

"Many patients struggle with the registration process, including the online registration portals that are required in some states for scheduling a vaccination," Marani noted. "These patients may have primary care physicians and would rather call their trusted physician and schedule a vaccination instead of navigating multiple websites and online portals."

LTC facilities rely on retail pharmacies to administer the vaccine, so logistics and scheduling can create challenges, he added. Further, LTC staff often manage who receives the vaccine in coordination with powers of attorney.

Vaccine storage can complicate matters, too, according to Marani. "This is similar to the approach for storing flu vaccines," he noted. "While current refrigeration storage for most facilities seems adequate to meet the COVID vaccine demand, there may be a need to purchase additional refrigeration units." HPN

Read "Unfolding paper tigers during a pandemic response" at https://hpnonline.com/21218116.

For COVID-19 vaccine administration, non-acute facilities need access in excess

by Rick Dana Barlow

If one word could be used to describe the supply chain response to the pandemic, particularly entering into Year 2, it just might be "access."

During the first year, supply chain professionals and consumers alike struggled to gain access to a cache of products, including disinfectant wipes, hand sanitizer, personal protective equipment (PPE) and toilet paper.

Now in a bit of an overlap, the second year adds the different COVID-19 vaccines into the mix.

A variety of non-acute care facilities continue to struggle for adequate supply, ranging from physician offices to retail pharmacies, urgent care centers, long-term care facilities, supermarkets and "mass vaccination centers" (MVCs), the latter of which sprout to accommodate demand surges and direct compliance in selected demographic areas.

Many of these non-acute facilities may not harbor the logistics expertise of their acute-care hospital compatriots. But they need it and have to obtain it somehow.

Healthcare Purchasing News reached out to a number of supply chain executives with non-acute logistics expertise to share management and performance improvement recommendations and tips.

First up, establish partnerships.

For Cory Turner, CMRP, Senior Director, Healthcare Strategy, Tecsys Inc., the possibilities abound.

"We have entered into a period where partnerships will become a cornerstone to success; that partnership may be an integrated delivery network (IDN), a distributor, a supply chain technology provider or some combination of these," Turner indicated. "The key is to perform an honest gap analysis, then understand the value that each one brings via solution or resource. Your future state needs to account for tight and system-driven internal processes, robust documentation in adherence to CDC guidelines, and scalable transportation, storage and admission processes. We have worked with health systems to stand up emergency warehouses, review internal disaster readiness protocols, and modify existing processes to account for the volatile surge around the corner. With every project we encourage proven and established methods, and to lean on your partners when expertise is lacking internally."

Communication sits at the root of any partnership, according to Darren Marani, Senior Vice President, Non-acute and Inside Sales, Cardinal Health Inc.

"The best advice is to work with the CDC, state Departments of Health, and the existing pharmaceutical distributors to express concerns in the process and supply or demand needs. The feedback to these parties could be for additional staffing or more product," he noted.

"The CDC and state Departments of Health websites have the most up-to-date information and distribution procedures available," Marani continued. "Distributors then have access to wait lists for products. For example, the CDC and State Department of Health may enforce that vaccines are distributed only to retail pharmacies for the time being. Typically, facilities must have an agreement with the CDC to administer vaccines. When they have the agreement with the CDC, non-acute facilities and retail pharmacies can then partner with their distributor to be put on lists for vaccine distribution. The three pieces work together to get the location of the vaccine, but if a non-acute facility is unaware of the process, there is a break in distribution and lack of supply."

Non-acute facilities that may not have access to product should work as an advocate for patients by helping them with scheduling needs and education, according to Marani.

"Most physician offices do not have access to vaccines right now, but they can still help patients through education about vaccination options and support with scheduling," he said. "Physician offices could supply patients with scheduling portals for retail pharmacies or assist patients with how to schedule appointments online. Patient care may not mean administering the vaccine in the office but enabling the patient to get access to the vaccination."

Marani further advises communicating with distributors to identify and plan for products related to vaccine administration, such as gloves and sharps.

Ken Fleming, President, Logistyx, concurs that communication remains key to any partnerships.

"The most important aspect for facilities is constant communication," Fleming insisted. "If they're encountering issues, not receiving expected shipments on time or in the expected condition, it's critical to communicate that to everyone up the chain, including state agencies overseeing vaccination programs, carriers and manufacturers to ensure those issues are being addressed and addressed quickly."

Any non-acute facility that seeks to gain access to COVID-19 vaccines should be working close with its local and state health departments to become a vaccine provider, according to Kim Garza, Vice President, National Accounts, Premier Alternate Site Programs.

"These providers should appoint someone in their organization to review program requirements and establish the necessary policies and procedures for vaccine storage, handling, administration and reporting," Garza noted. "Community pharmacies may also consider joining the Federal Retail Pharmacy Program, designed to improve access to vaccine doses in communities and increase the speed of vaccinations for eligible populations."

Reach out for national direction, according to Jamie Chasteen, Director of Corporate Development, Cold Chain Technologies.

"Specific guidance from the national regulatory organizations [will] provide not only best practice guidelines but also a detailed, vetted list of approved vendors and approved products to be used," Chasteen said. "Organizations that have the necessary expertise could still run programs with the resources of their choosing, but others could simply run their programs based on federal guidance."

Chasteen also urges non-acute care facilities to think bigger and farther out.

"Beyond the current pandemic, we might continue to see non-acute facilities play an important role in the distribution of therapies and vaccines as we have learned the importance of community-level care," he said. "Over the long run, it's in everyone's interest that our non-acute facilities have experience with cold-chain storage practices and access to the proper temperature assurance solutions."

Azra Behlim, Senior Director, Contract Services, Pharmacy, Vizient Inc., recognizes that the federal government allocates vaccines to state governments.

"Current quantity restrictions vary by geographic areas based on complete allocation control residing with state health departments," she said. "This authority was granted by the federal government, which purchased those doses and owns the doses. In the future, when manufacturers are able to directly sell the vaccine in the market, this challenge will no longer be present."

Still, Behlim offers four primary tips for non-acute supply logistics to navigate this and future crises.

1. Engage in more accurate methods for prospective demand planning considering variables such as population demographics in the areas they serve and other providers of the vaccine within a 15-mile radius.
2. Spend time looking at the supply chain management of ancillary supplies (e.g., syringes, swabs, bandages, etc.), calculate an accurate run-rate/burn-rate and define your parameters for safety stock.
3. Set up secondary suppliers for additional growth.
4. Review your current labor management structure and see what flexibility your current structure has for vaccine administration.

Wesley Crampton, COO, Medspeed, quips that his company is in the "driving things around for healthcare" business and that "many think of this space as simply moving items from point A to point B." But this requires strategic and analytical viewpoints rooted in information, he insists.

"In order for non-acute facilities to effectively distribute the vaccine in appropriate quantities to their patients, they need to understand the anticipated allocation and how much demand exists amongst their patients," Crampton said.

"While the allocations and timeline will be difficult to obtain from state and federal programs, understanding current demand is possible," he continued. "Some of MedSpeed's customers have initiated proactive efforts to pre-register individuals to receive the vaccine through online tools, community outreach efforts and even outreach from primary care clinicians. This allows them to have a greater understanding of the individuals in the community who need the vaccine and what phase each person will fall into based on the state criteria for prioritization. Having this data in hand, makes planning faster once vaccine allocation quantities are available.

"For non-acute facilities that are not affiliated with a health system, we would advise them to work with their state to solicit health system support for the storage and redistribution of vaccines," Crampton added. "Health systems have the experience, capacity and better access to the tools required for efficient and organized planning and distribution. Often, health systems also have the logistics infrastructure to support these efforts, as they have complex supply chain systems which are built to manage product availability through constantly changing supply and demand levels."

The maturation of clinically integrated supply chain maturity models

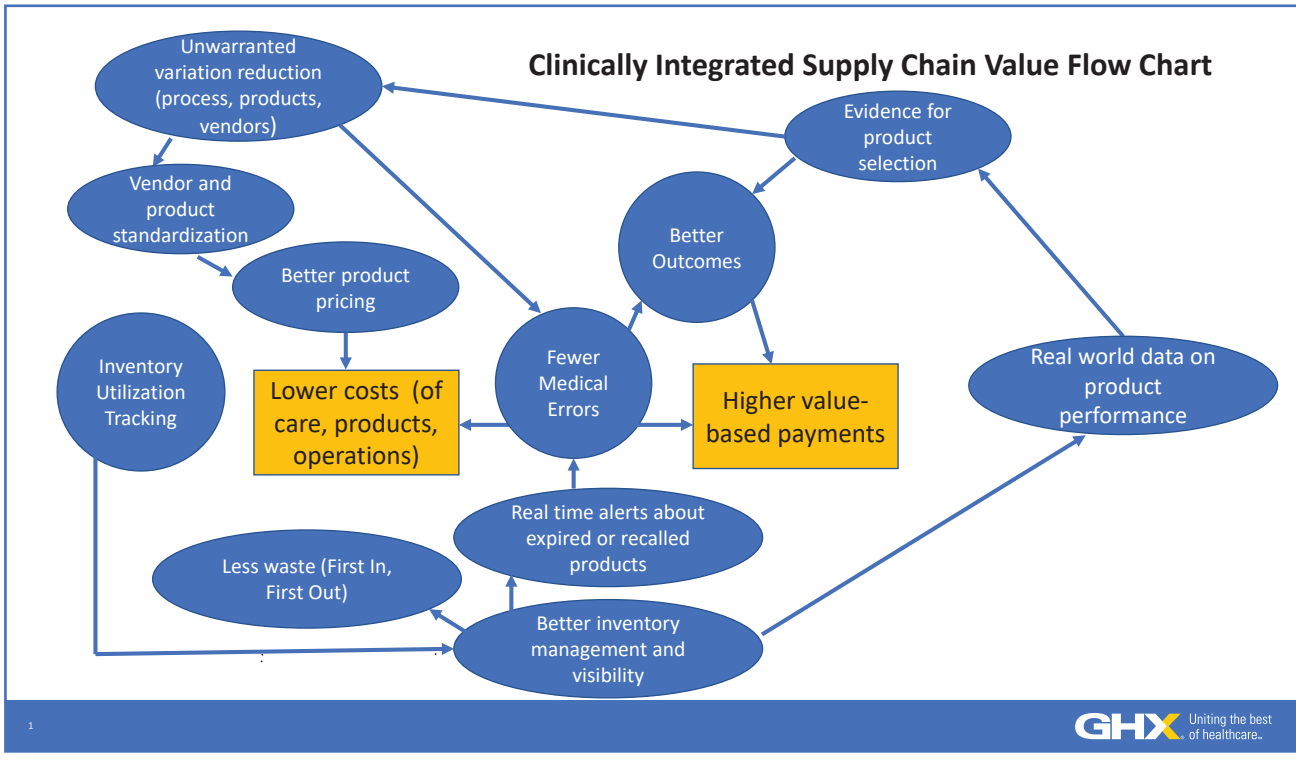
by Karen Conway, Vice President, Healthcare Value, GHX

In 2017, the Association for Healthcare Resource and Materials Management (AHRMM) launched its Clinically Integrated Supply Chain (CISC) Task Force, under the direction of Jimmy Chung, MD, who will become chair of the association in 2022. AHRMM defined CISC as "an interdisciplinary approach to deliver patient care with the highest value (high quality, best outcomes and minimal waste at the lowest cost of care) that is achieved through assimilation and coordination of clinical and supply chain knowledge, data and leadership toward care across the continuum that is safe, timely, evidenced-based, efficient, equitable and patient focused."

Since then, several other organizations have offered their own definitions and/or maturity models that generally fall into two different areas of emphasis:

- Using clinical evidence to reduce unwarranted variation in how care is delivered (including products used), resulting in lower costs and better quality care
- Tracking inventory utilization to minimize medical errors and adverse events and generate real world evidence on what works best on which patient populations

It is not about choosing one model over another, but rather understanding the full breadth of clinical-supply chain integration and how the various models are both complementary and mutually reinforcing, as depicted below.



Use of clinical evidence can help clinicians and supply chain collaborate to determine the best products that deliver the best care at the most optimal price. Armed with this data, hospitals and health systems can standardize on specific products and vendors, often resulting in better contract pricing. Less variation can also increase clinician familiarity with the product, often resulting in fewer errors in use.

On the other hand, by tracking inventory, clinicians can be alerted in real time if a product that is expired or recalled is about to be used on a patient. Better inventory visibility also supports practices that reduce waste by prioritizing the use of products that are closest to their expiration dates. Capturing data on which products are used on which patients not only supports better case costing, it can also help generate more real world evidence on how products perform in routine clinical practice, which can further support variation reduction efforts.

The use of inventory management tools and practices in the clinical environment is central to a couple of the maturity models. Developed prior to the pandemic, these models do not reference how better inventory utilization tracking can support demand planning, a topic that has garnered considerable attention in the wake of severe supply shortages (See the September 2020 issue of Standard Practices, https://hpnonline.com/21150785). While the magnitude of the pandemic may have still resulted in shortages, hospitals could

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have shared usage data with manufacturers to help them understand actual demand. Suppliers, in turn, could have provided hospitals with better visibility into when they can expect product shipments and in what quantity.

During the pandemic, hospitals were required to report their inventory levels, burn rates, and anticipated shipments. Many were previously not tracking this data, but now that they have developed these capabilities, it will be interesting to see if such practices become standard operating practice. Certainly, there is a business case for better inventory management, and that case only gets stronger as hospitals seek more clinical-supply chain integration. The key will be broadening our view as we recognize the interdependencies between the quality and cost of healthcare delivery and the day-to-day operations upon which healthcare delivery depends. Adding these aspects to the various maturity models in existence will support our collective ability to lower the costs of healthcare, while generating evidence on what delivery outcomes matter to patients relative to the costs to achieve those outcomes. HPN

1. Clinically Integrated Supply Outcomes Model | HIMSS Analytics - North America

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SPD and COVID-19 – what have we learned, if anything?

by Jean Sargent

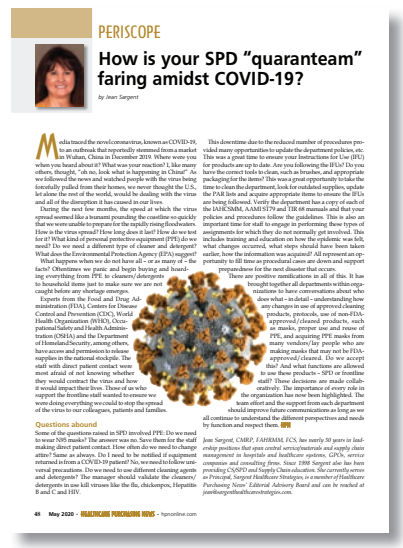
What a year it has been. Last May I wrote about your "quaranteam" and how you were faring amidst the pandemic during those first few months. Little did we know the toll it would take on us in Sterile Processing & Distribution (SPD) personally and professionally. So, what have we learned that will take us through the next crisis – be it another pandemic or something else?

We have been in crisis situations where we are overwhelmed with patients, trauma, mechanical issues and/or weather events and we have policies and procedures in place to direct us on how to respond. Suddenly, this time we have no surgeries, except for emergencies. Because fewer were driving, auto accidents were minimized. For the most part the world was shut down. It was eerie. This represented a very different form of crisis for which we did not have policies.

What did your department do with this opportunity of time? Many checked for outdated instruments, trays and supplies, then cleaned the department and/or reorganized. Education is always important. Did you take this opportunity to have education sessions or work on getting staff certified? It was also a good time to review manufacturer instructions for use (IFU) to ensure proper instrument care and testing verification products are on hand to meet the instruments' IFUs. Were staff reduced due to lack of work or reassigned to help with COVID-related issues in other departments?

We all had to be ready to respond to the unknown.

As the world began to re-open a fraction at a time, we found ourselves responding to new issues on a daily or weekly basis. The personal protective equipment (PPE) shortages emerged early on. What processes were put into place to extend the wear of PPE? How uncomfortable were you with this situation? We were told to sterilize selected masks – mainly N95 respirator models. My first instinct was to go back to the basics that I learned and taught: You can't sterilize it if it isn't clean. There was no IFU on how to clean a disposable mask. Manufacturers scrambled to devise methods to "clean" and sterilize masks. Gowns were also in short supply. The cost of an isolation gown jumped to $10.00+ from 50 cents each. Considering the volumes of gowns, the toll this had on the budget was enormous. Next were gloves. Were you asked to reuse gloves to have something to use rather than running short or having nothing at all?



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How is your SPD "quaranteam" faring amidst COVID-19?

by Jean Sargent

Questions abound

48 May 2020 · HEALTHCARE PURCHASING NEWS · hpnonline.com

"How is your SPD "quaranteam" faring amidst COVID-19?" May 2020 Healthcare Purchasing News, p.48. (https://hpnonline.com/21134527)

One positive: Respect

One of the benefits that surfaced during the pandemic is that SPD was recognized by senior leadership for the importance of the work the department produced. This is a recognition that we want to keep in place. As we emerge from the pandemic, it's important that we work to retain that vision of your importance. How will you ensure leadership understands the needs of the department to perform according to standards set by regulatory and standards-setting bodies, such as AAMI, AORN, FDA and others? How do you engage physicians who do not understand the effort and time necessary to clean and disinfect, test, assemble, sterilize and have ready instruments for each tray? Because orthopedic surgeons have many implant trays, for example, this may be a good time to get leadership and the physicians to understand the process of having multiple vendor trays per surgery and how that affects the SPD's function and staffing.

The relationship between Infection Prevention (IP) and SPD became more important, too. When considering how to address the PPE shortages, IP was the expert and helped direct the right decision at that point in time because it consistently changed, based on their knowledge and that of their colleagues around the country.

How was your relationship with IP prior to the pandemic? Have you taken the opportunity to understand each other's role to promote supporting each other? Have you created a bond that will enable SPD to be supported in the future by IP? This relationship is not always what it should be. I hope that this pandemic has offered the time to build this relationship and ongoing support for the needs of the department and any issues that arise. [Editor's Note: See "Infection Prevention, SPD: United we withstand," April 2021 *Healthcare Purchasing News*, pp.14-19. (https://hpnonline.com/21213928)]

How do you make these changes sustainable? How has the past year prepared SPD to respond to that next crisis? **HPN**

Jean Sargent, CMRP, FAHRMM, FCS, has nearly 30 years in leadership positions that span central service/materials and supply chain management in hospitals and healthcare systems, GPOs, service companies and consulting firms. Since 1998, Sargent also has been providing CS/SPD and Supply Chain education. She currently serves as Principal, Sargent Healthcare Strategies, is a member of Healthcare Purchasing News' Editorial Advisory Board and can be reached at jean@sargenthealthcarestrategies.com.

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