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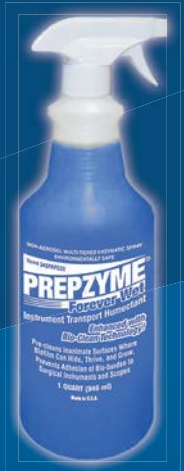

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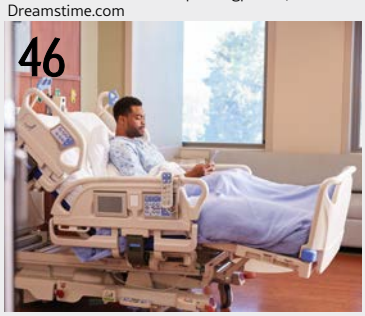

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Rick Dana Barlow
Senior Editor

Back in early April, the Good Friday holiday this year had to share the spotlight with two other events: My middle-aged birthday and my third (if not fourth) bout with COVID-19 – despite being vaccinated and boosted.

But that's not the point of this prosaic screed. Once again – historically, the third time now – here's yet another anecdote on how the retail supply chain industry is not that far ahead of the healthcare supply chain after all.

For you veteran *HPN* readers, you may recall how I shared several vignettes highlighting a state government agency and two retail outlets that experienced the type of information technology challenges that were supposed to have been solved in those areas within the first decade of the new millennium. One of the examples involved a certain retail outlet with a bullseye for a logo. (See my SKU'd column, "Chicken Brittle," September 2019 *HPN*, p. 4, (https://hpnonline.com/21093188) and before that, the "Flash Point" item in my Fast Foreward column in April 2007, *HPN*.)

Here's what happened at an unnamed retail pharmacy outlet that shares a lettered logo design with a famous resurrected Major League Baseball team.

Once the doctor had called in my prescription for Paxlovid hours earlier in the day, I pulled up to convenient drive-through window and requested my prescription from the pharmacist on duty.

Red flag No. 1: With apologies, the pharmacist notified me that they were out of the medication. Nothing in inventory.

Red flag No. 2: She advised me that I would have to get my prescription at another of their retail pharmacy locations.

Knowing how efficient healthcare IT bills itself to be, I immediately asked the pharmacist to call the nearest retail pharmacy location to make sure they had enough inventory to fulfill my subscription. She agreed, checked all around and found the nearest location several miles away in a neighboring village with available stock. She also alerted them that I was heading over post-haste.

With appreciation, I headed to retail pharmacy No. 2. Apparently, this location only had one pharmacist on duty and a long line inside the store. When she returned to me at the drive-through window, she congenially remembered the telephone conversation and my case. Then she disappeared.

A line started forming in the drive-through lane behind me. After 15 minutes, the pharmacist returned to the window and noticed the idle parade of cars behind me in the queue. She sheepishly asked if I would drive around the block so that she could take care of all the other customers.

Red flag No. 3: When I finally returned, I learned what had happened. The pharmacist calmly shared with me that the insurance company (again, no names, but a primary color dominates its branding) already had processed the claim at the original retail pharmacy location … without knowing that the inventory levels at that location were depleted. When the new location tried to fill my prescription the insurance company wouldn't cover it, so the pharmacist had to call the original location to fulfill the approved order.

This took at least an hour spanning two drive-through retail pharmacy locations that should have known better because this retail pharmacy corporation routinely boasts about its supply chain and IT acumen at prominent trade shows and in a variety of media outlets.

Wasn't the National Coordinator for Health Information Technology supposed to solve all of this at least a decade earlier?

The rolling healthcare reform initiatives in the 1990s through the 2000s and through the 2010s were designed to ensure all of us were insured, retained our preferred clinicians and could conveniently, safely and securely access our health records anywhere at any time because all the healthcare computers would be talking to one another in an interoperable cyberworld that sped information flow.

If the retail industry is any indicator, we're apparently not there yet, despite the pomp, hype and circumstance. You've heard how they're so much ahead of healthcare, but that's not really the case.

We're still in this together. We should work together to solve it once and for all.

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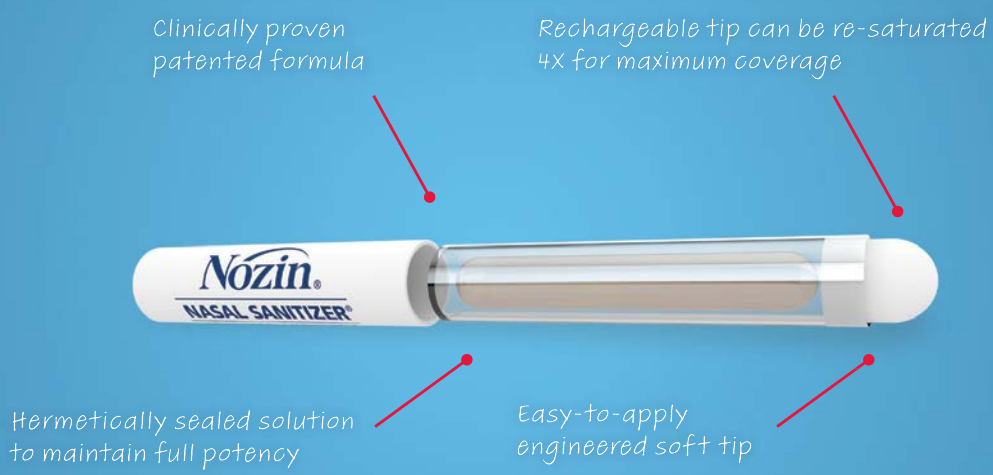

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FAST STATS

Healthcare-associated Infections (HAIs)

The average risk of three HAIs spiked to a 5-year high in hospitals during the COVID-19 pandemic and remain high, according to The Leapfrog Group's spring 2023 Hospital Safety Grade data:

Average CLABSI standard infection ratio increased by 60%

Average MRSA standard infection ratio increased by 37%

Average CAUTI standard infection ratio increased by 19%

Across the country, increases in infections varied by state:

32 out of the 50 states had a significant increase of CLABSI, with the biggest increase in West Virginia

18 out of the 50 states had a significant increase of MSRA, with the biggest increase in West Virginia

11 out of the 50 states had a significant increase of CAUTI, with the biggest increase in New Mexico

Source: https://www.leapfroggroup.org/survey-materials/summary-changes-2023-leapfrog-hospital-survey

Photo credit: LogoStockimages | stock.adobe.com

NEWSWIRE

APIC creates IP playbooks for healthcare facilities

To help infection preventionists (IPs) and epidemiologists operationalize prevention efforts for emerging infectious disease threats, APIC is launching a series of "playbooks" that can be downloaded and customized for use in individual healthcare facilities.

Created by APIC's Emerging Infectious Diseases Task Force, each playbook serves as a fundamental roadmap to swiftly guide infection prevention and control (IPC) personnel through preparation for, and management of, potential infectious disease outbreaks. The pathogen-specific playbooks outline recommended practices for outbreak response starting with pathogen identification, prevention of transmission, safe work practices, considerations for providing patient care, patient discharge, occupational health, and outreach to healthcare stakeholders. Links to clinical guidance and references are included throughout.

Read on: https://hpnonline.com/53059101

Global Healthcare Exchange to acquire Prodigo Solutions

Global Healthcare Exchange (GHX) has announced that it has signed a definitive agreement to acquire Pittsburgh, Penn.-based Prodigo Solutions, Inc. (Prodigo), a supply chain and data enablement technology company.

In 2023, hospitals are seeking a return to profitability even as they continue to experience the same challenges that made 2022 the most financially difficult year since the start of the COVID-19 pandemic, including persistent inflation, higher labor expenses, and lower patient volumes.

Prodigo's offerings help to broaden the healthcare supply chain's span of control, expanding the potential for savings across multiple categories of spend (including non-traditional categories such as purchased services, minor equipment, and labor) and across a quickly expanding continuum of care (including acute, non-acute, clinics, offices, and direct-to-patient care). Prodigo shapes demand by directing spending toward contractually compliant and cost-optimized product options during the procurement process. As a result, health systems achieve higher contract utilization, maximize savings associated with committed contract terms, and support sustainability objectives that are becoming essential components of modern supply chains.

Read on: https://hpnonline.com/53057496

See also: https://hpnonline.com/53057701

AI finds early signs of Alzheimer's in speech patterns

New technologies that can capture subtle changes in a patient's voice may help physicians diagnose cognitive impairment and Alzheimer's disease before symptoms begin to show, according to a UT Southwestern Medical Center researcher who led a study published in the Alzheimer's Association publication Diagnosis, Assessment & Disease Monitoring.

"Our focus was on identifying subtle language and audio changes that are present in the very early stages of Alzheimer's disease but not easily recognizable by family members

or an individual's primary care physician," said Ihab Hajjar, M.D., Professor of Neurology at UT Southwestern's Peter O'Donnell Jr. Brain Institute.

Researchers used advanced machine learning and natural language processing (NLP) tools to assess speech patterns in 206 people – 114 who met the criteria for mild cognitive decline and 92 who were unimpaired. The team then mapped those findings to commonly used biomarkers to determine their efficacy in measuring impairment.

Read on: https://hpnonline.com/53057780

Risk for early-onset colorectal cancer elevated by red flags

Researchers at Washington University School of Medicine in St. Louis have identified four important signs and symptoms that signal an elevated risk of early-onset colorectal cancer. These red flags may be key to earlier detection and diagnosis of early-onset colorectal cancer among younger adults. The number of young adults with colorectal cancer has nearly doubled in recent years.

Studying de-identified health insurance data on more than 5,000 patients with early-onset colorectal cancer — cancer that occurs before a person turns 50 — the researchers found that in the period between three months and two years before diagnosis, abdominal pain, rectal bleeding, diarrhea and iron-deficiency anemia each indicate an increased risk in those under age 50. They found that having a single one of the symptoms almost doubled the risk; having two symptoms increased risk by more than 3.5 times; and having three or more boosted the risk by more than 6.5 times. The study is published in the *Journal of the National Cancer Institute*.

Read on: https://hpnonline.com/53059552

AHA publishes new report highlighting financial pressures on hospitals

The American Hospital Association (AHA) has released a new report that details the extraordinary financial pressures continuing to affect hospitals and health systems, as well as access to patient care.

The report found:

- Overall hospital expenses increased by **17.5% between 2019 and 2022**. This far outpaced Medicare reimbursement, which **only increased 7.5%** during this same time.
- Labor costs, which on average account for about half of hospitals' total budget, increased 20.8% between 2019 and 2022. This is in large part due to a greater reliance on contract staffing agencies to fill workforce gaps and to meet patient demand. The outcome of this has been a staggering **258% increase in total contract labor expenses for hospitals in 2022 compared to 2019**.
- For the first time in history, **the median price of a new drug exceeded $200,000** – more than triple the median annual household income in the U.S. At the same time, price increases for existing drugs continue to outpace inflation, which helped drive a **19.7% increase in drug expenses per patient between 2019 and 2022.**
- Hospital supply expenses per patient increased 18.5% between 2019 and 2022, outpacing increases in inflation by nearly 30%. Specifically, **hospital expenses for emergency services supplies – which include ventilators, respirators, and other critical equipment – experienced a nearly 33% increase** during the same time period.
- Purchased service expenses, which are expenses hospitals incur to create operational efficiencies such as IT, environmental services and facilities, and food and nutrition services increased 18% between 2019 and 2022.
- The burden associated with insurer-required administrative tasks also contributes to rising expenses and negatively affects patient care. Nearly **three-fourths of nurses reported increases in insurer-required administrative tasks** for medical services over the last five years. Nearly **9 in 10 nurses reported insurer administrative burden had negatively impacted patient clinical outcomes.**

Read on: https://hpnonline.com/53058097

Supply Chain's Guide to Partnering with Surgeons

Two seasoned supply chain pros share advice on how to win over physicians through trusted data, clear visuals, and common language. These best practices and fresh strategies transform clinician and supply chain engagement and reduce clinical spend.

Supply spend ranks as a top expense in healthcare. High-ticket implants make up much of that, but surgeons lack insight into how their utilization impacts medical device spend.

Seasoned pros Brad Nash and Kelley Young share engagement tips that earn physicians' trust. They offer practical advice on winning over clinicians through trusted data, clear visuals, and common language.

Download the whitepaper: https://hpnonline.com/53056531

Conduit connecting clinical, financial, operational workflow

Carts & Workstations: Flexibility, modularity and real-time tracking, transmitting reaches prime time

by Rick Dana Barlow

Photo 107054996 © Sudok1 | Dreamstime.com

Healthcare professionals may view carts and workstations as a necessary tool to do their jobs, but they also serve as a conduit that links clinical service (patient care) to financial information (patient billing) and to operational procedures (patient supply).

In short, they represent a multifaceted command center housed in a compact package that helps to circulate patients through the care process.

They include carts and workstations that house information technology, carts and workstations used to pack instruments for sterilization and carts and workstations stocked full of products for medical and surgical procedures.

Improving patient care workflow through effective and efficient use of cart and workstation technology can be a tall but attainable order.

Making them work

Clinicians in Surgical Services and on the Nursing floors, sterile processing professionals and supply chain professionals want to make more effective and efficient use of their cart and workstation capabilities, components and space to improve workflow and the patient care because it affects outcomes all around. That's why, by and large, they need to concentrate on their product decision-making before any cart or workstation joins their fleet. Bottom line: Plan ahead.

"When considering the purchase of carts for medical or other purposes, it's important to assess how they will be utilized in advance to make an informed decision," recommended Jonathan Sabo, vice president, Marketing & Customer Support, Cardinal/Detecto. "For example, some carts offer slide-out shelves on both sides of the cart, along with ample top counter space, providing increased work surface area for positioning laptops, vital signs monitors and other equipment in confined spaces. These carts may also come with push handles on multiple sides, giving customers the flexibility to choose handles that fit their workflow.

"Customization options are available for some carts, allowing customers to select drawer width, handrails, drawer height configurations, lock types, [radiofrequency identification] options and even unlimited color choices, resulting in a cart that is tailored to their specific requirements," Sabo continued. "This approach avoids the need for customers to conform to standard features and allows for a cart that is manufactured based on the user's preferences. There may be a wide range of standard models and numerous configurations available, depending on the manufacturer."

Advanced planning also invites flexibility, according to Sabo. "In emergency situations, such as in an ER when time is critical, searching for keys or typing in PIN codes to unlock drawers may not be practical," he indicated. "Some carts may offer unique features, such as a Quick Release plunger with breakaway plastic tags and red/green flag, which allows for instant unlocking of all drawers with a single press of a button, providing immediate access to life-saving drugs and equipment. The lock can be easily reset after the cart is cleaned and restocked, ensuring readiness for future use."

Tim Ramcoobeer

Clinicians need to be mindful about their equipment selections, particularly around modularity, suggests Tim Ramcoobeer, sales development representative, H+H System Inc. "Now, more than ever, it is imperative that clinicians be meticulous about the equipment they choose to support their team's workflow," he noted. "With all the available options, making that decision isn't easy but one that will save time, space and lives. I believe there needs to be a shift toward modular carts and workstations. When it comes to a pharmacy that carries out multiple daily tasks – say anesthesia tray swap and medication distribution – it makes far more sense to have a single mobile unit that can achieve both."

Dave Mikulak

Sound decisions may require a new, more realistic mindset, according to Dave Mikulak, director, Sales, Point of Care, TouchPoint Medical. "When technology can become part of the conversation and not a piece of equipment that gets in the way of patient care, that's when clinicians start to make the best, most effective and

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efficient use of their carts and workstations," Mikulak insisted. "Space is tight, there is no room for clunky equipment that does not work with the caregiver's workflow. When they spend more time addressing the technology's needs, they are taken away from time spent with the patient. Getting a space assessment of the area where the clinician needs the cart or workstation prior to purchase and being able to demo the unit to make sure it fits into their space are great ways to improve workflow and the care they provide to the patient."

Flexibility is key, particularly for designated use, indicates Ian Loper, vice president, DSI. "There are boiler plate medical carts in the field used as utility carts and [for] multipurpose use, and then there are specialty carts, specifically designed for certain applications of use," Loper noted. "Whether it be a mobile computing cart, an isolation cart, a crash cart, an anesthesia cart, a case cart or a supply exchange cart, there is something out there designed specifically for the application of use. The key is to identify the requirement, and make sure all the bells and whistles are included on the specialty cart, so all the tools are available for the clinician at a moment's notice."

Ian Loper

Adding options

In a world that embraces convenience, flexibility and modularity, clinical and operational end users may be embracing the addition of handheld devices and other options to encourage multipurpose functionality across clinical, financial and operational spectrums.

"Medical carts are designed with a wide range of optional accessories available for customization, including defibrillator shelves, IV poles, bin organizers, catheter holders, sharps container holders, cardiac boards, oxygen tank holders and waste bins," Cardinal/Detecto's Sabo countered. "These accessories are often side mounted, allowing for flexibility in loading and accommodating various devices and supplies needed for portable patient care. Some carts may feature a unique corner extrusion mounting system that provides easy attachment of optional accessories in customized locations. This allows users to slide the mounting rail up or down to the desired height for the accessory, providing versatility and adaptability.

"Electronic carts may offer different unlocking methods to choose from, such as one lock and individual drawer sensors, individual drawer locks and individual drawer sensors, or simply one lock," he continued. "Detailed employee audit tracking may also be available to track drawer openings and closings, helping to mitigate theft of sensitive items, such as narcotics, with the use of included PC software. These features and options offer customization and convenience for users of medical carts, allowing for efficient organization and storage of essential equipment and supplies in a manner that best fits their needs."

H+H's Ramcoobeer recognizes how technological development and advancement has progressed during the last 15 years to the point that supporting devices no longer need to be confined to a department.

"These tools are now handheld and mobile to allow for on-the-go workflow," he indicated. "Especially with the development of various mobile tray-checking options, there is the ever-increasing need to have a mobile unit support all aspects of that process. [We] addressed this by being able to prove that a unit not only houses the technology needed to verify medication accuracy but also modular components – such as subdivisible bins and integrated narcotics boxes -- to then support the next phase of that process, drug replenishment. In doing so, clinicians can work confidently knowing that there is a place for everything and everything is in its place."

TouchPoint's Mikulak acknowledges the dynamics of healthcare technology trends. "Workflows and tracking are among the most critical features requested by clinicians and healthcare systems," he observed. "Workstations must allow for future integration of technological advancements. Touchpads, cellular phones and other system communication devices should not only be stored on workstations but integrate with systems and allow for charging to increase effectiveness. Inventory tracking, real-time location services, integrated cart health systems and smaller user-friendly cart adaptations will benefit the caregivers.

"Workstations must be designed to allow for integration and expansion of new features based on the system and caregiver workflows," Mikulak continued. "Patients are a critical user of workstation technology as providers update information, integrate real-time patient monitoring and allow for real-time access to scans, labs and other features for patient training and knowledge. The workstation is the central hub for all caregiver interfaces within the healthcare system, charting, bar-code scanning, RFID tracking and medication management at the location of the patient."

DSI's Loper envisions tech-festooned carts and workstations as "smart" products with an operating system that empowers them and the clinician end user to help them do their jobs.

Demanded features

What do end users want to see on their cart and workstation products, if possible?

"Key capabilities revolve around the technology platform identified by the healthcare system, according to TouchPoint's Mikulak. "EMR, medication management and system integration within the facility infrastructure is paramount," he continued. "Healthcare systems continue to evolve and advance their technology, but it cannot create a negative impact on the patient care or caregiver interface. User features must be intuitive, controllable and ergonomic. Information displays, touchscreens and storage systems must be intuitive with easy understanding and limited training for proficiency. Personalization of these features should allow for caregiver control of screen layout, lighting control, setting changes and storage of this information based on RFID or user access control settings.

"Easy-to-read cart health is critical, by informing the caregiver of battery life, cart issues, interface with other systems like service and other related warnings and cautions, ensuring that the caregiver can focus on patient care," Mikulak added. "Large worksurfaces that are not limited by keyboard or monitor placement to allow for caregivers to prepare medications and other tasks without the need to reset your workstation."

Convenience coupled with security is paramount, according to Cardinal/Detecto's Sabo. "In the current crisis of drug diversion, ensuring added security combined with quick access to drawer contents is crucial," he said. "Added security and speedy drawer access don't have to be mutually exclusive. Electronic carts now offer unique and sophisticated ways to securely lock up drawer contents, including theft-prone narcotics, while providing quick access for verified healthcare professionals. Features such as drawer alarms for forced entry, open drawer alarms, and an audit trail of drawer opens with time/date and personnel access information ensure narcotic safety and staff accountability. User setup can be easily done at the cart or with included Windows software.

As opioid abuse and drug-related deaths continue to be a pressing issue, healthcare providers must take aggressive steps to prevent drug diversion, Sabo argues.

"Electronic carts now offer multiple unlocking and access authorization methods, such as individual PIN entry on a touchscreen keypad, touchless RFID card badge scanner, or a combination of both for dual entry protection," he noted. "This allows for specific drawers on the cart to be unlocked based on individual needs and security levels, enabling quick access to

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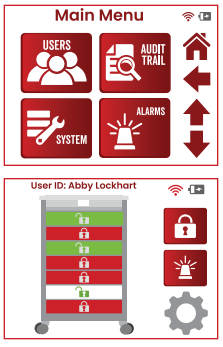

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basic supplies while keeping controlled substances safely locked away. Alarms can also be set up to alert staff about drawers left open, using audible alerts, as well as e-mail and text notifications to pre-assigned admin personnel."

For H+H's Ramcoobeer, the issue boils down to two words: Space constraints. "It seems to be a daily conversation with clinical staff that space is a major limiting factor in the speed and accuracy at which they can deliver patient care," he noted. "Unfortunately, space, or the lack thereof, isn't a quick, cheap, or easy fix. To make the most of the space that is available, we always hear the need for workstations that are both modular and scalable."

DSI's Loper acknowledges durability remains an ongoing concern because mobile carts can take a beating. "Whether it's crashing into walls, being rolled over a bumpy floor, drawers being slammed, exposure to cleaning chemicals, outdoor elements, humidity, etc., any and all carts in a hospital need to be able to take a beating," he said. "In comes quality of design, quality or materials used, and quality of care for the rolling assets.

"Carts are tools, and they need to be designed for the application with the right materials, with the right casters, with the right locking device and with the right accessories," Loper continued. "Not all manufacturers have this area of expertise pinned down. If a crash cart goes wrong, what's the worst-case scenario? If a workstation in the SPD tips over, what's the worst-case scenario? If an anesthesia cart is compromised and can't be open, what's the worst-case scenario? What's the after-sale service look like after a cart is sold? Who is the rep and are they accountable? These are just some of the questions that should be considered during the evaluation process of determining which manufacturer to partner with on this large and important investment."

Design tips

Cart and workstation makers consistently search for relevant and useful design tips from customers to improve ergonomics and workflow, which aren't always so overt.

Cardinal/Detecto's Sabo turns to recent events and issues as instigators. "In light of recent events such as the COVID-19 pandemic and concerns about healthcare-associated infections (HAIs), the importance of hygienic cleaning in medical facilities has become more critical than ever," he said. "Modern medical carts are designed with the busy clinical user in mind, prioritizing hygienic features that are easy to clean and disinfect.

These carts feature wipe-down surfaces made of materials such as ABS with smooth-molded contours that are easy to clean, ensuring effective disinfection. Additionally, features such as steering locks for the wheels and parking lots are beneficial for nurses maneuvering their carts in busy medical environments. Some carts offer push handles on one side, while others provide the option of guide handles on multiple sides or other variations, catering to different user preferences.

"Soft close drawers are a convenient feature for nurses, allowing them to close drawers easily with a gentle bump using their hips when their hands are often occupied with other tasks," Sabo continued. "Keeping up with the demand for wireless connectivity, some carts come with built-in Wi-Fi, enabling cart updates for user access and other functions to be managed through a centralized point. The onboard user interface of these carts is designed to be user-friendly, with full-color touchscreens, beautiful graphics, and easy navigation, similar to popular consumer devices like Apple products. These features enhance the overall usability and convenience of the carts in healthcare settings, prioritizing hygiene, ease of use, and efficiency."

TouchPoint's Mikulak concentrates on physical harm and injury prevention as key. "Overuse injuries are extremely common in the healthcare environment," he indicated. "User-specific height adjustability of the worksurface is a standard expectation with expansion into electronic lifts to decrease lift injuries. Mobility and maneuverability relating to handles, handle locations and caster selection [must] ensure the workstations can be configured to optimize the transport ergonomics. Keyboard location and tilt options for user adjustment [must] decrease the risk of carpel tunnel and other overuse injuries. Visual interfaces like the touchscreen need to be placed and oriented for quick easy visualization, and computer monitors require adjustability to include positioning for caregivers with glasses or multifocal lenses. Positioning and expansion of the workstations require significant ergonomic thought to ensure that walking, reaching and bending can be minimized by providing a central system to assist in repetitive daily operations."

DSI's Loper also impresses the importance of eliminating potential injury. "Adjustable height workstations are mission critical for a prep and pack tech workstation in a Sterile Processing department," he said. "Everyone is a different height, so to optimize employee productivity, ergonomics come into play. It's not a one-size-fits-all scenario for workstations where healthcare workers sit most of the day cleaning, sorting and organizing sterile instruments. Having the ability to adjust the height of the workstation should be mandatory."

H+H's Ramcoobeer focuses on the limited options available for medication and inventory labeling as particularly irksome. "All too often teams are forced to tape labels onto bins and medication trays," he said. "These fashioned labels then deteriorate or fall off, leaving clinicians with no way of quickly identifying what they need, sometimes in life-or-death circumstances." HPN

Read sidebar: "Cart, workstation product updates abound for convenience, ergonomics" online at https://hpnonline.com/53059860

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Trends and treatments in wound and skin care

Products, personnel, and protocols remain key for healing patients and post-COVID profits.

by Brenda Silva

Just as many of the wounds inflicted upon the healthcare industry by COVID-19 are still slow to heal, so are the wounds of many patients in hospitals and healthcare facilities throughout the country. One common factor affecting the healing process of both is the current shortage of healthcare personnel, which is evidenced by a critical reduction in healthcare staff—many of whom chose to leave the healthcare profession post-COVID, which resulted in understaffed facilities and directly impacted patient care.

Along with a decrease in qualified and available healthcare staff, another area that requires immediate attention is the increase in wound- and skin-related infections. Industry professionals assert that it is not enough to have innovative products that are designed to increase healing and prevent further infections. Hospitals and healthcare facilities must also educate and train existing personnel in wound-treatment protocols in order to effectively stop the bleeding of patients and profits in the future.

Slow-release option for slow healing

For every patient and every wound, there exists a wide range of factors that determine the time it takes for a wound and the surrounding skin to heal completely, such as a patient's age and overall health status. In addition, the time to optimal wound healing is also affected by the type of wound a patient has and how/where it originated (infection, accident, surgery, etc.). As such, many wound care and skin care companies are looking to create dressings that are designed to expedite the skin- and wound-healing process, with many products also serving as cost-effective options for the patient, as well as the hospital or healthcare facility.

At Medline Industries, Greg Olk, senior director of product management, Advanced Wound Care, pointed out one of the factors that contribute to slow wound healing, and detailed a solution to overcome the challenge faced by patients and physicians.

Greg Olk

"More than 90% of chronic wounds contain biofilm, which are bacterial structures physically attached to a surface and characterized by tolerance to antibiotics and biocides. Biofilm stalls wound healing and contributes to chronicity. It is also very difficult to remove because it firmly adheres to surrounding tissue and is highly tolerant to antibiotics. Recent evidence suggests that 'slow-release' iodine is more effective on biofilm than many standard antimicrobials, such as silver and Polyhexamethylene Biguanide (PHMB)," Olk said.

He continued, "Slow-release iodine dressings release iodine in a slow, controlled manner over a three-day period to sustain antibacterial activity and reduce cytotoxicity. Perhaps more

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[1] entrotech life sciences inc. study report no. 13-RP-1025

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importantly, with today's growing concern of superbugs and multidrug-resistant organisms (MDROs), iodine's multiple modes of action ensure the rapid kill of microbes and help prevent the development of bacterial resistance."

Citing the benefits of Medline's foam dressing, Olk said, "An example of Medline's innovative wound care dressings is IoPlex foam dressing. It is the only foam dressing with controlled-release iodine, which has been shown to be effective in-vitro on a broad spectrum of mature biofilms. This allows healthcare workers to treat significantly recalcitrant wounds effectively, which previously may have been stalled. For example, a venous leg ulcer that was present for six years and did not respond to other dressings was closed in six months using Medline's IoPlex foam dressing."

Silver and honey saves time and money

David Navazio

As evidenced by many patients in hospitals and healthcare facilities, chronic and infected wounds are often slow to heal. At Gentell, President and CEO David Navazio offered an explanation as to the reason behind the slow healing process.

"One of the causes of delayed wound healing is the presence of microorganism overgrowth in wounds. When wounds exhibit this, it is tempting to reach for cleansers or packing solutions to treat the overgrowth. However, routine use of some types of these products—such as sodium hypochlorite solution, hydrogen peroxide, or povidone iodine—may also remove essential components for wound healing, such as regenerating tissues, growth factors, and chemokines. Ultimately, these solutions may be potentially harmful to the wound tissues; cytotoxic (cell death), delay wound healing, and exhibit other adverse effects," Navazio reported.

He continued, "If the products mentioned above are cytotoxic, and could potentially delay wound closure, then what are the alternate advanced wound care products that can be used in their place? The answer is that silver or honey products may be the ideal treatment option. Silver and honey dressings kill microbial organisms at the source, which is why wound care best practices indicate them as preferred treatment options."

Navazio elaborated on the benefits of silver and honey products, and when each one is the best choice for the patient's wound.

"Silver has been used as an antimicrobial agent for centuries; it is effective against a broad range of bacteria (including methicillin (MRSA) and vancomycin-resistant strains), yeast, fungi, and viruses. In infected wounds, dressings containing nanocrystalline silver are helpful in the early treatment phase (i.e., the first two to three weeks) to reduce bacterial counts and mitigate wound odor. Silver ions engage directly with bacteria on the wound bed, thus eliminating the source of the infection. These dressings are best used as an adjunct to surgical debridement. As the wound becomes cleaner, you should use silver-free dressings to minimize toxicity toward keratinocytes and fibroblasts."

Silver products available from Gentell include Collagen Ag dressings, Calcium Alginate Ag dressings and Foam Ag adhesive dressings. Among the honey products available from Gentell are Honey Alginate/Fiber dressings.

Navazio pointed out, "Honey has been used as a wound dressing for thousands of years; it is a biologic wound dressing with multiple bioactivities and physical properties that work together to expedite the healing process. Honey's acidity increases the release of oxygen from hemoglobin, thereby making the wound environment less favorable for the activity of destructive proteases, and the high osmolarity of honey draws fluid out of the wound bed to create an outflow of lymph fluid."

He added, "Honey has a broad-spectrum antibacterial activity, but there is much variation in potency between honey products, due to levels of hydrogen peroxide, but much of this is inactivated by the enzyme catalase present in blood, serum, and wound tissues. Honey also has bioactivities that stimulate the immune response (thus promoting the growth of tissues for wound repair), suppress inflammation, and support rapid autolytic debridement."

So which is the best to use for optimal wound care? "Best practice is to avoid the use of cytotoxic wound cleansers such as sodium hypochlorite, hydrogen peroxide or povidone iodine to treat chronic or infected wounds. Use of a silver or honey product should be considered. Silver dressings control biofilm in wound beds, manage exudate, and promote autolytic debridement. However, you should never use silver on clean wounds; chronic wounds healing as expected; or wounds being treated with an enzymatic debriding agent. Honey would be the better choice in those cases," Navazio summed up.

Addressing wound care dressings

Before addressing what kind of wound dressing is most appropriate for optimal patient healing, healthcare professionals must look to the most appropriate products for cleaning the skin and wound area itself. At Angelini Pharma, an important consideration in choosing a cleanser is the potential for irritation from continued use, as noted by Artee Hazari, U.S. marketing head.

Artee Hazari

"A common problem with skin and wound cleansers is irritation with continued usage. ExSept Plus from Angelini Pharma has been shown to be non-sensitizing, non-allergenic, and non-irritating. This antimicrobial skin and wound cleanser is a highly effective antimicrobial solution that provides rapid and long-lasting protection against a wide range of pathogens, including bacteria, viruses, and fungi."

She added, "It is a multi-faceted infection control across several indications – debridement, post-surgical cleansing, Stage I-IV pressure ulcers, debriding agent, catheter exit site cleansing, and diabetic foot ulcers, as well as graft and donor sites."

Infection prevention and staff shortages

According to Robert Garcia, a 40-year infection preventionist, an increase in the number of hospital-acquired infections (HAIs) during the pandemic is only partially to blame for slow healing among patients. Garcia pointed out that the impact of the continuing exodus of experienced patient care staff has also contributed significantly to a rising trend in hospital and healthcare facility patient complications.

Robert Garcia

"In addition to the rise in pandemic-related HAIs, the problem for hospitals is compounded by the related 'Great Resignation' of over 100,000 nurses, which is directly linked to the pandemic and is expected to grow to 800,000 by the year 2028. This has had, and will continue to have, a severe impact on hospitals and healthcare facilities, as well as patient care," Garcia said.

He continued, "Hospitals need to turn to established protocols while assuring compliance with all elements. Facility leaders need to expand oversight and intravascular teams. In addition, consideration should be made of benefits achievable with new technology."

Garcia summed up, "In order to best address staff shortages, hospitals need to standardize applications and procedures as much as they can throughout their facility. By doing this, patients can benefit because there will be little deviation in what all staff members do at the bedside." HPN

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3. https://www.epa.gov/pesticide-registration/emerging-viral-pathogen-guidance-and-status-antimicrobial-pesticides. Accessed 02.23.23.

Metrex INFECTION PREVENTION

Return to best practices

2023 Infection Prevention Resource Guide

by Janette Wider

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Hospitals are facing more pressures than ever before. Staffing shortages and razor-thin operating margins are two major areas of struggle, yet infection prevention still remains a critical area of focus. The key to overcoming these struggles and keeping infection prevention a top priority, according to industry experts, is a return to best practices and continued education.

Doe Kley

Doe Kley, MPH, RN, CIC, LTC-CIP, T-CHEST, principal infection preventionist for The Clorox Company, said, "With a rise in both emerging pathogens and hospital-acquired infections (HAIs), the importance of infection prevention and control measures is more relevant than ever. For the past three years, attention and resources have been singularly focused on COVID-19, but as we enter the fourth year of the pandemic, it's apparent that we need to get back to a horizontal approach to infection prevention, such as ensuring the implementation of practices and products that will do the greatest good for the greatest number—in other words, is effective against most threats."

Alice Brewer, MPH, CIC, CPHQ, FAPIC, Senior Director of Clinical Affairs, PDI, agrees, she said, "COVID kind of clouded our view of all the things that could go wrong or all the problems in healthcare. The public health emergency has ended, but there are still so many things that we need to think about and worry about. *Candida auris* has been a huge issue. And it was a big issue before the pandemic. I remember listening to some talks about that in 2018 and 2019, and thinking 'Oh no, this is going be a big problem.' So that's certainly still a big issue—causing a lot of infections and causing a lot of problems in terms of identifying it and treating it. And unfortunately, during the pandemic, we actually saw a spike in some infections. CLABSI [Central Line-associated Bloodstream Infection] actually went up about 50% during the pandemic. We were doing everything that we could to keep patients safe and treat COVID patients at this time—I've been referring to it as kind of guerilla warfare. And so, we slipped on some of the best practices that we know should

Alice Brewer

be done in order to prevent some of these infections. We're seeing a need to return to what we know is best practice and address these things that were an issue pre-pandemic."

Strong programs

On April 17, the New Jersey Department of Health (NJDOH) published a press release[1] calling on all healthcare facilities and professional healthcare organizations in the state to sign up their staff for infection prevention and control (IPC) training from NJDOH's Project Firstline team. Project Firstline, a national initiative established and funded by the federal Centers for Disease Control and Prevention (CDC), provides training and educational tools on IPC practices for frontline healthcare workers.

The team is planning to expand the training throughout New Jersey following its successful first partnership with Hackensack Meridian Health (MHM) network.

Sharon Ward-Fore

Sharon Ward-Fore, Clinical Consultant for Metrex, stresses the importance of infection prevention and control programs. "Infection prevention and control programs are built upon an evidence-based approach to prevent patients and health workers from being harmed by avoidable infections," she noted. "Without effective IPC it is impossible to achieve quality healthcare delivery, as IPC programs are an indicator of patient quality and safety. "

She added, "In fact, as recently as November 2022, the CDC revised its 'Core Infection Prevention and Control Practices for Safe Healthcare Delivery in All Settings' document to include a core set of infection prevention and control practices that are required in all healthcare settings, regardless of the type of healthcare."

"Any healthcare facility that receives reimbursement from CMS is required to have an IPC program. CMS issued a revised guidance statement on July 14, 2022, on infection prevention and control and antibiotic stewardship programs," Ward-Fore said. "This guidance created a rule for hospital Conditions of Participation (CoP) for infection prevention and control and antibiotic stewardship program requirements. The requirements are that 'any healthcare facility must have an infection prevention and control program organization and policies, antibiotic stewardship program organization and policies, leadership responsibilities and unified and integrated infection prevention and control and antibiotic stewardship programs for multi-hospital systems.'"

Kley largely agrees, and gives tips for organization's infection prevention departments, she said, "We recommend that infection preventionists take stock of the current status of their facility's environmental cleaning and disinfection program. Any gaps identified should be included in this year's annual Work Plan—the IP's road map."

Compatibility is key

When it comes to compatibility, Kley said, "As part of IPs' evaluation of their cleaning and disinfecting programs, product inventory should also be assessed. With some of the supply chain issues accruing during the pandemic, unfamiliar and unapproved products often found their way into facilities. It's important for healthcare facilities to incorporate the right disinfectants for the right jobs. This means ensuring disinfectant products have the appropriate kill claims needed to address pathogens of concern within their facility, fast contact times and broad surface compatibility."

Brewer added, "We're having a lot more conversations lately about compatibility and instructions for use. There are so many products and options out there for hospitals to choose from. But we really have to pay attention to the compatibility of cleaning agents with our equipment and our surfaces. Because if you're using the wrong thing, and you're using it the wrong way, you can really cause a lot of damage, and that gets expensive. And no hospital wants to be constantly replacing equipment or refinishing surfaces. This is something that the Joint Commission has started paying a lot more attention to, as they're going in and certifying hospitals are really paying attention to appropriate use of products and that the right products are being used on the right surfaces and for the right indication."

At PDI, Brewer said, they're getting a lot of questions about compatibility and instructions. So much so, that the organization has a website dedicated to navigating compatibility questions. The website allows users to look up equipment and the product to determine compatibility.

Kley told *Healthcare Purchasing News* that Clorox Healthcare also has educational materials for infection prevention departments. She said, "Not only does Clorox Healthcare provide product solutions, but we have also invested in the development of educational resources with CloroxPro HealthyClean, an online learning platform offering best-in-class education and training on environmental cleaning and disinfection with the only industry-wide certificate course accredited by ANAB. Recently, the platform expanded with the launch of CloroxPro HealthyClean Introduction to Healthcare, a microlearning module for EVS managers, supervisors and new IPs entering the workforce to increase understanding of healthcare-specific considerations when cleaning for health."

Staffing challenges remain

Brewer commented on one of the largest challenges in the healthcare industry today. She said, "Industry staffing is a big issue in infection prevention. The pandemic resulted in a lot of people just burning out, we overworked our healthcare staff beyond anything we've seen before so we've had a lot of infection preventionists step away from the profession, retire early, or go do something else. So, there are a lot of new infection preventionists and education and training are really critical."

She added that PDI has always been focused on education, but the organization is stepping it up in terms of offering a lot of educational materials and continuing education courses that can help get new infection preventionists to be effective in the healthcare space.

"The other issue when you're short staffed is figuring out how to do more with less," Brewer added. "For example, finding efficiencies, and I think that will probably be a slower thing. We're really going to have to try and figure out how we improve efficiencies and where we can find those efficiencies—this is what I've been hearing from people in the field. They all have so much to do and are trying to figure out how to get it all done in a day."

David Nelson, Marketing Director, Metrex, shared his thoughts on staffing as well. He said, "Staffing remains a challenge in two ways: end-user staff turnover presents a challenge to IPs in trying to achieve compliance with cleaning and disinfection protocols; and turnover in the IP population itself post-pandemic resulting in many newer IPs."

The possible solution? According to Nelson, effective products with simple-to-use instructions to help ensure end-user compliance. HPN

Reference

1. Zbarby. (2023, April 17). New Jersey Department of Health encourages healthcare facilities, organizations to sign up for Infection Prevention and Control Training From Department's Project Firstline Team. Department of Health | News | New Jersey Department of Health Encourages Healthcare Facilities, Organizations to Sign Up for Infection Prevention and Control Training from Department's Project Firstline Team. https://www.nj.gov/health/news/2023/approved/20230417a.shtml

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PDi Communication Systems
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Cardinal Health
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RyMed Technologies
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Medtronic
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www.isikel.com

Teleflex Medical
www.teleflexmedical.com

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Eloquest Healthcare
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Safety-Med Products
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Contec Professional
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HAIGuard
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MICROFIBER MOPS/PRODUCTS

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- **Simply dispense, apply, and allow to dry. Use with any dry wipe.**

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1. Meyers C, Milici J, Robison R. The ability of two chlorine dioxide chemistries to inactivate human papillomavirus-contaminated endocavitary ultrasound probes and nasendoscopes. J Med Virol. 2020 Aug;92(8):1298-1302. doi: 10.1002/jmv.25666. Epub 2020 Feb 4. PMID: 31919857; PMCID: PMC7497195.

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www.alimed.com
Angelini Pharma
www.angelini-us.com
Ansell Healthcare
www.ansell.com
Cantel Medical Corp.
www.cantelmedical.com
Case Medical
www.casemed.com
Certol International
www.certol.com
CIVCO Medical Solutions
www.civco.com
Clorox Professional
www.cloroxpro.com
CS Medical
www.csmedicalllc.com
Cygnus Medical
www.cygnusmedical.com
Diversey
www.sdfhc.com
Dynarex Corporation
www.dynarex.com
Ecolab Healthcare
www.ecolab.com/healthcare
EvaClean Infection Prevention Solutions by EarthSafe
www.evaclean.com
GOJO Industries
www.gojo.com
Healthmark Industries
hmark.com
Isikel Medical Supplies
www.isikel.com
Kimberly-Clark Professional
www.kcprofessional.com
Lonza
www.lonza.com
Marketlab
marketlab.com
Medicom
medicom.com
Medtrica
www.medtrica.com
Metrex
www.metrex.com
Micro-Scientific
www.micro-scientific.com
Nanosonics
www.nanosonics.us
Parker Laboratories
www.parkerlabs.com
PDI
pdihc.com
Pure Processing
www.pure-processing.com
Safety-Med Products
www.safety-med.com
SONO Disinfectants
www.ultrasoundwipes.com
STERIS
www.steris.com
STERIS IMS
www.steris-ims.com
Surgmed Group
www.surgmed.com
Technowipe Lint Free Wipes
www.technowipe.com
UMF - PerfectCLEAN
perfectclean.com

DISPOSABLES

BODY BAGS

Medtrica
www.medtrica.com

DISPOSABLE KITS & TRAYS

Advanced Medical Innovations
www.amiwelisten.com
AliMed
www.alimed.com
Ansell Healthcare
www.ansell.com
B. Braun Medical
www.bbraunusa.com
BD
www.bd.com
Choyce Products
www.choyce-products.com
CIVCO Medical Solutions
www.civco.com

Contec Professional
professional.contecinc.com

Dynarex Corporation
www.dynarex.com

Healthmark Industries
hmark.com

Medtronic
www.medtronic.com

Metrex
www.metrex.com

Olympus America
www.olympusamerica.com

Ruhof Corporation
www.ruhof.com

Teleflex Medical
www.teleflexmedical.com

DISPOSABLE MEDICAL DEVICES/PRODUCTS

Advanced Medical Innovations
www.amiwelisten.com

Aesculap
www.aesculapusa.com

Ahlstrom-Munksjö
www.ahlstrom-munksjo.com

Air-Matt
www.air-matt.com

AliMed
www.alimed.com

Ambu
www.ambuusa.com

Ansell Healthcare
www.ansell.com

B. Braun Medical
www.bbraunusa.com

Baxter
www.hill-rom.com

BD
www.bd.com

Beekley Medical
beekley.com/

C Change Surgical
www.cchangesurgical.com

CIVCO Medical Solutions
www.civco.com

Dale Medical Products
www.dalemed.com

Dräeger
www.draeger.com

Dynarex Corporation
www.dynarex.com

GelPro Medical
www.Gelpromedical.com

Healthmark Industries
hmark.com

HEATJAC
www.heatjac.com

HoverTech International
hovermatt.com

KelCor
www.kelcortape.com

Key Surgical
www.keysurgical.com

Kimberly-Clark Professional
www.kcprofessional.com

Malaysian Rubber Export Promotion Council
www.mrepc.com

Medicom
medicom.com

Mölnlycke Health Care
www.molnlycke.us

Myco Medical
www.mycomedical.com

NEXT Medical Products Company
nextmedicalproducts.com

Olympus America
www.olympusamerica.com

Retractable Technologies
www.retractable.com

Ruhof Corporation
www.ruhof.com

S2S Global
www.s2s-global.com

Safety-Med Products
www.safety-med.com

Scanlan International
www.scanlaninternational.com

Serim Research
www.Serim.com

Surgmed Group
www.surgmed.com

Tricol Biomedical
www.tricolbiomedical.com

Viscot Medical
www.viscot.com

DISPOSABLE PRIVACY/ SHOWER CURTAINS

Construction Specialties
www.c-sgroup.com

Cubicle Curtain Factory
www.cubiclecurtainfactory.com

HAIGuard
www.haiguard.com

On the Right Track
www.ontherighttrack.com

Standard Textile
www.standardtextile.com

DISPOSABLE SCRUBS

Ahlstrom-Munksjö
www.ahlstrom-munksjo.com

Care + Wear
www.careandwear.com

Dynarex Corporation
www.dynarex.com

Encompass Group
www.encompassgroup.com

Healthmark Industries
hmark.com

Marketlab
marketlab.com

Medicom
medicom.com

Mölnlycke Health Care
www.molnlycke.us

ProTEC-USA
www.protecusaproducts.com

S2S Global
www.s2s-global.com

Tronex Healthcare
www.tronexcompany.com

DISPOSABLE/ WASHABLE BLOOD PRESSURE CUFFS/ COVERS/ADAPTERS

AliMed
www.alimed.com

Dräeger
www.draeger.com

Dynarex Corporation
www.dynarex.com

GE Healthcare
www.gehealthcare.com/en

Midmark
www.midmark.com

Technicuff Corp
www.technicuff.com

DRAPES & BARRIER PRODUCTS

ANTIMICROBIAL-IMPREGNATED LINENS/FABRICS/ TEXTILES/CURTAINS

AliMed
www.alimed.com

Ansell Healthcare
www.ansell.com

Comfort Line
www.mycomfortline.com

Construction Specialties
www.c-sgroup.com

Cubicle Curtain Factory
www.cubiclecurtainfactory.com

Cupron Medical Textiles
www.cupronmedicaltextiles.com

HAIGuard
www.haiguard.com

ICP Medical
www.icpmedical.com

ImageFIRST
www.imagefirst.com

On the Right Track
www.ontherighttrack.com

Standard Textile
www.standardtextile.com

EMERGENCY BEDS/COTS

AliMed
www.alimed.com

EQUIPMENT DRAPES/COVERS

CIVCO Medical Solutions
www.civco.com

Cygnus Medical
www.cygnusmedical.com

Dynarex Corporation
www.dynarex.com

Ecolab Healthcare
www.ecolab.com/healthcare

ICP Medical
www.icpmedical.com

Infection Prevention Products
www.ippmfg.com

Kimberly-Clark Professional
www.kcprofessional.com

Man & Machine
www.man-machine.com

Medicom
medicom.com

Parker Laboratories
www.parkerlabs.com

Pedigo Products
www.pedigo-usa.com

Standard Textile
www.standardtextile.com

FLUID CONTROL DRAPES

Ahlstrom-Munksjö
www.ahlstrom-munksjo.com

Ecolab Healthcare
www.ecolab.com/healthcare

Standard Textile
www.standardtextile.com

GENERAL PURPOSE DRAPES

AliMed
www.alimed.com

CIVCO Medical Solutions
www.civco.com

Cygnus Medical
www.cygnusmedical.com

Dynarex Corporation
www.dynarex.com

Ecolab Healthcare
www.ecolab.com/healthcare

HAIGuard
www.haiguard.com

Kimberly-Clark Professional
www.kcprofessional.com

Medicom
medicom.com

Standard Textile
www.standardtextile.com

MATTRESS PROTECTION/ MAINTENANCE

AliMed
www.alimed.com

Ansell Healthcare
www.ansell.com

Cardinal Health
www.cardinalhealth.com

Diversey
www.sdfhc.com

Ecolab Healthcare
www.ecolab.com/healthcare

ICP Medical
www.icpmedical.com

Medtrica
www.medtrica.com

Peel Away Labs
www.peelawayshealth.com

Standard Textile
www.standardtextile.com
Trinity Guardion
www.trinityguardion.com
UMF - PerfectCLEAN
perfectclean.com

PRIVACY SCREENS - FIXED/MOBILE/ WASHABLE

AliMed
www.alimed.com
Man & Machine
www.man-machine.com
Silentia
www.silentia.com

RADIATION PROTECTION BARRIERS

Wolf X-Ray Corporation
www.wolfxray.com

SURGICAL DRAPES

3M
www.3m.com/medical
Ahlstrom-Munksjö
www.ahlstrom-munksjo.com
Cardinal Health
www.cardinalhealth.com
CIVCO Medical Solutions
www.civco.com
Dynarex Corporation
www.dynarex.com
Ecolab Healthcare
www.ecolab.com/healthcare
HAIGuard
www.haiguard.com
Kimberly-Clark Professional
www.kcprofessional.com
Standard Textile
www.standardtextile.com
Viscot Medical
www.viscot.com

FLUID/TEMPERATURE/ PRESSURE MANAGEMENT

FLUID MANAGEMENT SYSTEMS

Ansell Healthcare
www.ansell.com
B. Braun Medical
www.bbraunusa.com
Baxter
www.hill-rom.com
Ecolab Healthcare
www.ecolab.com/healthcare
S2S Global
www.s2s-global.com

FLUID WARMING SYSTEMS

3M
www.3m.com/medical
AliMed
www.alimed.com
Ecolab Healthcare
www.ecolab.com/healthcare
ICU Medical
www.icumed.com

IRRIGATION SYSTEMS

Ecolab Healthcare
www.ecolab.com/healthcare
Isikel Medical Supplies
www.isikel.com
Torvan Medical
www.torvanmedical.com

PATIENT TEMPERATURE MANAGEMENT PRODUCTS

3M
www.3m.com/medical
AliMed
www.alimed.com
Dynarex Corporation
www.dynarex.com
Ecolab Healthcare
www.ecolab.com/healthcare
Encompass Group
www.encompassgroup.com
Exergen
www.exergen.com
ICU Medical
www.icumed.com
Kimberly-Clark Professional
www.kcprofessional.com

PRESSURE MANAGEMENT/ POSITIONING PRODUCTS

AliMed
www.alimed.com
Ansell Healthcare
www.ansell.com
Cygnus Medical
www.cygnusmedical.com
Dynarex Corporation
www.dynarex.com
HoverTech International
hovermatt.com
Kyra Medical
www.kyramedical.com
Linet Americas
www.linetamericas.com
Spry Therapeutics
www.sprytx.com
Stryker Sage
www.stryker.com

SURGICAL SLUSH MACHINES/CONTAINERS

C Change Surgical
www.cchangesurgical.com

HAND HYGIENE

ALCOHOL HAND RUBS

AliMed
www.alimed.com
Angelini Pharma
www.angelini-us.com
Diversey
www.sdfhc.com
Ecolab Healthcare
www.ecolab.com/healthcare
GOJO Industries
www.gojo.com
Inopak Ltd.
www.inopak.com
Isikel Medical Supplies
www.isikel.com
Kimberly-Clark Professional
www.kcprofessional.com
Marketlab
marketlab.com
Metrex
www.metrex.com
SC Johnson Professional
www.scjp.com/en-us
Triple S
triple-s.com

ANTISEPTICS

Dynarex Corporation
www.dynarex.com
Georgia-Pacific
www.gppro.com
GOJO Industries
www.gojo.com
Metrex
www.metrex.com
Mölnlycke Health Care
www.molnlycke.us

AUTOMATED HANDWASHING/ SURVEILLANCE

Baxter
www.hill-rom.com
Ecolab Healthcare
www.ecolab.com/healthcare
Georgia-Pacific
www.gppro.com
GOJO Industries
www.gojo.com
Kimberly-Clark Professional
www.kcprofessional.com
SC Johnson Professional
www.scjp.com/en-us
Steriliz UVC Disinfection
www.rduvc.com

DISPENSING SYSTEMS, HANDCLEANERS

3M
www.3m.com/medical
AliMed
www.alimed.com
Angelini Pharma
www.angelini-us.com
Diversey
www.sdfhc.com
Ecolab Healthcare
www.ecolab.com/healthcare
Georgia-Pacific
www.gppro.com
GOJO Industries
www.gojo.com
Inopak Ltd.
www.inopak.com
Isikel Medical Supplies
www.isikel.com
Kimberly-Clark Professional
www.kcprofessional.com
Marketlab
marketlab.com
Metrex
www.metrex.com
Safety-Med Products
www.safety-med.com
TORK ESSITY
www.torkusa.com
Triple S
triple-s.com

DISPENSING SYSTEMS, TOUCHLESS

3M
www.3m.com/medical
Diversey
www.sdfhc.com
Ecolab Healthcare
www.ecolab.com/healthcare
Georgia-Pacific
www.gppro.com
GOJO Industries
www.gojo.com
ImageFIRST
www.imagefirst.com
Inopak Ltd.
www.inopak.com
Isikel Medical Supplies
www.isikel.com
Kimberly-Clark Professional
www.kcprofessional.com
Marketlab
marketlab.com
Rubbermaid Commercial Products
www.rubbermaidcommercial.com
Safety-Med Products
www.safety-med.com
TORK ESSITY
www.torkusa.com
Triple S
triple-s.com

FOAMING HAND SOAPS

Diversey
www.sdfhc.com
Ecolab Healthcare
www.ecolab.com/healthcare
Georgia-Pacific
www.gppro.com
GOJO Industries
www.gojo.com
ImageFIRST
www.imagefirst.com
Inopak Ltd.
www.inopak.com
Kimberly-Clark Professional
www.kcprofessional.com

Marketlab
marketlab.com
Mölnlycke Health Care
www.molnlycke.us
Rubbermaid Commercial Products
www.rubbermaidcommercial.com
Safety-Med Products
www.safety-med.com
SC Johnson Professional
www.scjp.com/en-us
TORK ESSITY
www.torkusa.com
Triple S
triple-s.com

HAND CLEANERS/ ANTIMICROBIAL SOAPS

3M
www.3m.com/medical
Diversey
www.sdfhc.com
Dynarex Corporation
www.dynarex.com
Ecolab Healthcare
www.ecolab.com/healthcare
Georgia-Pacific
www.gppro.com
GOJO Industries
www.gojo.com
ImageFIRST
www.imagefirst.com
Inopak Ltd.
www.inopak.com
Kimberly-Clark Professional
www.kcprofessional.com
Lonza
www.lonza.com
Marketlab
marketlab.com
Metrex
www.metrex.com
Micro-Scientific
www.micro-scientific.com
Mölnlycke Health Care
www.molnlycke.us
TORK ESSITY
www.torkusa.com

HAND CLEANING STATIONS

Belimed Infection Control
www.belimed.com
Bowman Dispensers
www.BowmanDispensers.com
Diversey
www.sdfhc.com
Ecolab Healthcare
www.ecolab.com/healthcare
Torvan Medical
www.torvanmedical.com

HAND SANITIZERS, WATERLESS

3M
www.3m.com/medical
AliMed
www.alimed.com
Angelini Pharma
www.angelini-us.com
Choyce Products
www.choyce-products.com
Diversey
www.sdfhc.com
Dynarex Corporation
www.dynarex.com
Ecolab Healthcare
www.ecolab.com/healthcare
GOJO Industries
www.gojo.com
ImageFIRST
www.imagefirst.com
Inopak Ltd.
www.inopak.com
Isikel Medical Supplies
www.isikel.com
Kimberly-Clark Professional
www.kcprofessional.com
Medicom
medicom.com
Parker Laboratories
www.parkerlabs.com
Safety-Med Products
www.safety-med.com

HAND SANITIZERS, WIPES

PDI
pdihc.com

SURGICAL HAND SCRUBS

3M
www.3m.com/medical
AliMed
www.alimed.com
Ecolab Healthcare
www.ecolab.com/healthcare
Georgia-Pacific
www.gppro.com
GOJO Industries
www.gojo.com
Kimberly-Clark Professional
www.kcprofessional.com
Mölnlycke Health Care
www.molnlycke.us

PATIENT HYGIENE

BATHING SYSTEMS & PRODUCTS

AliMed
www.alimed.com
Avadim Technologies
www.theraworx.com
Coloplast
www.coloplast.us
Dynarex Corporation
www.dynarex.com
Ecolab Healthcare
www.ecolab.com/healthcare
Mölnlycke Health Care
www.molnlycke.us
Standard Textile
www.standardtextile.com
Stryker Sage
www.stryker.com

INCONTINENCE PRODUCTS

AliMed
www.alimed.com
Standard Textile
www.standardtextile.com
Stryker Sage
www.stryker.com

NASAL ANTISEPTIC

3M
www.3m.com/medical
Nozin
www.nozin.com

ORAL CARE/VAP PREVENTION PRODUCTS

Dale Medical Products
www.dalemed.com
Dynarex Corporation
www.dynarex.com
Kimberly-Clark Professional
www.kcprofessional.com
Stryker Sage
www.stryker.com

PATIENT HYGIENE PRODUCTS

AliMed
www.alimed.com
Avadim Technologies
www.theraworx.com
Coloplast
www.coloplast.us
Dynarex Corporation
www.dynarex.com
GOJO Industries
www.gojo.com
Inopak Ltd.
www.inopak.com
Kimberly-Clark Professional
www.kcprofessional.com
Lonza
www.lonza.com
Medway Group
www.medwayus.com
Mölnlycke Health Care
www.molnlycke.us
PDI
pdihc.com
S2S Global
www.s2s-global.com
Safety-Med Products
www.safety-med.com
Stryker Sage
www.stryker.com

PATIENT SCREENING/TESTING

C. DIFFICILE TEST/ASSAYS

Abbott
www.alere.com/en/home.html
BD
www.bd.com
Isikel Medical Supplies
www.isikel.com

COVID-19 DIAGNOSTIC TESTS

Abbott
www.alere.com/en/home.html
BD
www.bd.com
Isikel Medical Supplies
www.isikel.com
Onyx Medical
www.onyxmedical.com

COVID-19 SEROLOGY TESTS

Abbott
www.alere.com/en/home.html
Isikel Medical Supplies
www.isikel.com

MRSA TEST/ASSAYS

Abbott
www.alere.com/en/home.html
BD
www.bd.com
Isikel Medical Supplies
www.isikel.com

POINT-OF-CARE SCREENING

Abbott
www.alere.com/en/home.html
BD
www.bd.com
BioFire Diagnostics
www.Biofiredx.com
Cepheid
www.cepheid.com
Isikel Medical Supplies
www.isikel.com
Onyx Medical
www.onyxmedical.com

RAPID FLU TEST KITS

Abbott
www.alere.com/en/home.html
BD
www.bd.com
BioFire Diagnostics
www.Biofiredx.com
Cepheid
www.cepheid.com
Isikel Medical Supplies
www.isikel.com

SEPSIS SCREENING

Abbott
www.alere.com/en/home.html

SPECIMEN COLLECTION KITS/CONTAINERS/ TRANSPORT/DECAPPERS

Ansell Healthcare
www.ansell.com

BD
www.bd.com

Choyce Products
www.choyce-products.com

Isikel Medical Supplies
www.isikel.com

Marketlab
marketlab.com

Medtronic
www.medtronic.com

TEMPERATURE SCREENING DEVICES/COVERS

Exergen
www.exergen.com

Marketlab
marketlab.com

Midmark
www.midmark.com

PERSONAL PROTECTIVE EQUIPMENT/APPAREL

APRONS/BIBS/ARM PROTECTORS

Ansell Healthcare
www.ansell.com

Choyce Products
www.choyce-products.com

Dynarex Corporation
www.dynarex.com

Kimberly-Clark Professional
www.kcprofessional.com

PolyCo
https://polycousa.com

ProTEC-USA
www.protecusaproducts.com

S2S Global
www.s2s-global.com

Safety-Med Products
www.safety-med.com

Tronex Healthcare
www.tronexcompany.com

Wolf X-Ray Corporation
www.wolfxray.com

BOOT COVERS/ OVERSHOES

AliMed
www.alimed.com

Ansell Healthcare
www.ansell.com

Choyce Products
www.choyce-products.com

Dynarex Corporation
www.dynarex.com

Isikel Medical Supplies
www.isikel.com

Kimberly-Clark Professional
www.kcprofessional.com

Marketlab
marketlab.com

Medicom
medicom.com

PolyCo
https://polycousa.com

Pure Processing
www.pure-processing.com

S2S Global
www.s2s-global.com

Safety-Med Products
www.safety-med.com

Standard Textile
www.standardtextile.com

Surgmed Group
www.surgmed.com

Tronex Healthcare
www.tronexcompany.com

BOUFFANT/ SURGICAL CAPS

AliMed
www.alimed.com

Choyce Products
www.choyce-products.com

Dynarex Corporation
www.dynarex.com

Isikel Medical Supplies
www.isikel.com

Kimberly-Clark Professional
www.kcprofessional.com

Marketlab
marketlab.com

Medgluv
www.medgluv.com

Medicom
medicom.com

Mölnlycke Health Care
www.molnlycke.us

S2S Global
www.s2s-global.com

Safety-Med Products
www.safety-med.com

Standard Textile
www.standardtextile.com

Tronex Healthcare
www.tronexcompany.com

CLIP-ON/WRAP-AROUND LENSES

AliMed
www.alimed.com

S2S Global
www.s2s-global.com

Safety-Med Products
www.safety-med.com

Wolf X-Ray Corporation
www.wolfxray.com

COVERALLS/JACKETS

Ahlstrom-Munksjö
www.ahlstrom-munksjo.com

AliMed
www.alimed.com

Ansell Healthcare
www.ansell.com

Cardinal Health
www.cardinalhealth.com

Kimberly-Clark Professional
www.kcprofessional.com

Marketlab
marketlab.com

Medicom
medicom.com

Mölnlycke Health Care
www.molnlycke.us

ProTEC-USA
www.protecusaproducts.com

S2S Global
www.s2s-global.com

Safety-Med Products
www.safety-med.com

Tronex Healthcare
www.tronexcompany.com

FACE MASKS/SHIELDS

3M
www.3m.com/medical

Ahlstrom-Munksjö
www.ahlstrom-munksjo.com

AliMed
www.alimed.com

American Ultraviolet
www.AmericanUltraviolet.com

Ansell Healthcare
www.ansell.com

Cardinal Health
www.cardinalhealth.com

Care + Wear
www.careandwear.com

Choyce Products
www.choyce-products.com

Dynarex Corporation
www.dynarex.com

Isikel Medical Supplies
www.isikel.com

Key Surgical
www.keysurgical.com

Kimberly-Clark Professional
www.kcprofessional.com

Marketlab
marketlab.com

MAXAIR Systems
www.maxair-systems.com

Medgluv
www.medgluv.com

Medicom
medicom.com

Mölnlycke Health Care
www.molnlycke.us

Myco Medical
www.mycomedical.com

Onyx Medical
www.onyxmedical.com

Pure Processing
www.pure-processing.com

Ruhof Corporation
www.ruhof.com

S2S Global
www.s2s-global.com

Safety-Med Products
www.safety-med.com

Standard Textile
www.standardtextile.com

STERIS
www.steris.com

Summit Medical LLC
www.instrusafe.com

Surgmed Group
www.surgmed.com

Tronex Healthcare
www.tronexcompany.com

Wolf X-Ray Corporation
www.wolfxray.com

GLOVES

AliMed
www.alimed.com

Ansell Healthcare
www.ansell.com

Cardinal Health
www.cardinalhealth.com

Choyce Products
www.choyce-products.com

Dynarex Corporation
www.dynarex.com

Endoscopy Superstore
www.endoscopysuperstore.com

Isikel Medical Supplies
www.isikel.com

Kimberly-Clark Professional
www.kcprofessional.com

Malaysian Rubber Export Promotion Council
www.mrepc.com

Marketlab
marketlab.com

Medgluv
www.medgluv.com

Medicom
medicom.com

Mölnlycke Health Care
www.molnlycke.us

Onyx Medical
www.onyxmedical.com

PolyCo
https://polycousa.com

Pure Processing
www.pure-processing.com

S2S Global
www.s2s-global.com

Safety-Med Products
www.safety-med.com

STERIS
www.steris.com

Tronex Healthcare
www.tronexcompany.com

UMF - PerfectCLEAN
perfectclean.com

Wolf X-Ray Corporation
www.wolfxray.com

GOGGLES

AliMed
www.alimed.com

American Ultraviolet
www.AmericanUltraviolet.com

Ansell Healthcare
www.ansell.com

Dynarex Corporation
www.dynarex.com

Mölnlycke Health Care
www.molnlycke.us

S2S Global
www.s2s-global.com

Safety-Med Products
www.safety-med.com

Wolf X-Ray Corporation
www.wolfxray.com

HOOD FILTERS

MAXAIR Systems
www.maxair-systems.com

ISOLATION GOWNS

Care + Wear
www.careandwear.com

Choyce Products
www.choyce-products.com

Dynarex Corporation
www.dynarex.com

Encompass Group
www.encompassgroup.com

ImageFIRST
www.imagefirst.com

Isikel Medical Supplies
www.isikel.com

Isolation Door Caddy
www.isodoorcaddy.com

Kimberly-Clark Professional
www.kcprofessional.com

Marketlab
marketlab.com

Medicom
medicom.com

PolyCo
https://polycousa.com

ProTEC-USA
www.protecusaproducts.com

S2S Global
www.s2s-global.com

Safety-Med Products
www.safety-med.com

Standard Textile
www.standardtextile.com

Tronex Healthcare
www.tronexcompany.com

LAB GOWNS/COATS

Choyce Products
www.choyce-products.com

Dynarex Corporation
www.dynarex.com

ICP Medical
www.icpmedical.com

ImageFIRST
www.imagefirst.com

Isikel Medical Supplies
www.isikel.com

Kimberly-Clark Professional
www.kcprofessional.com

Marketlab
marketlab.com

Medicom
medicom.com

Mölnlycke Health Care
www.molnlycke.us

S2S Global
www.s2s-global.com

Safety-Med Products
www.safety-med.com

Standard Textile
www.standardtextile.com

Tronex Healthcare
www.tronexcompany.com

N95 MASKS

3M
www.3m.com/medical

Choyce Products
www.choyce-products.com

Dynarex Corporation
www.dynarex.com

Endoscopy Superstore
www.endoscopysuperstore.com

Isikel Medical Supplies
www.isikel.com

Kimberly-Clark Professional
www.kcprofessional.com

Marketlab
marketlab.com

MAXAIR Systems
www.maxair-systems.com

Medgluv
www.medgluv.com

Medicom
medicom.com

Myco Medical
www.mycomedical.com

Ruhof Corporation
www.ruhof.com

S2S Global
www.s2s-global.com

Safety-Med Products
www.safety-med.com

Tronex Healthcare
www.tronexcompany.com

PPE DISPENSING SYSTEMS/ORGANIZERS

AFC Industries
www.afcindustries.com

AliMed
www.alimed.com

Ansell Healthcare
www.ansell.com

Care + Wear
www.careandwear.com

Hänel Storage Systems
www.sterilestorage.com

Isolation Door Caddy
www.isodoorcaddy.com

Kimberly-Clark Professional
www.kcprofessional.com

Marketlab
marketlab.com

S2S Global
www.s2s-global.com

Silentia
www.silentia.com

Standard Textile
www.standardtextile.com

RADIATION PROTECTION PPE

Wolf X-Ray Corporation
www.wolfxray.com

RESPIRATORS

3M
www.3m.com/medical

CleanSpace Technology
www.cleanspacetechnology.com

Isikel Medical Supplies
www.isikel.com

Kimberly-Clark Professional
www.kcprofessional.com

MAXAIR Systems
www.maxair-systems.com

Safety-Med Products
www.safety-med.com

SCRUBS

Ahlstrom-Munksjö
www.ahlstrom-munksjo.com

Care + Wear
www.careandwear.com

Dynarex Corporation
www.dynarex.com

ImageFIRST
www.imagefirst.com

Isikel Medical Supplies
www.isikel.com

Kimberly-Clark Professional
www.kcprofessional.com

Marketlab
marketlab.com

Mölnlycke Health Care
www.molnlycke.us

ProTEC-USA
www.protecusaproducts.com

S2S Global
www.s2s-global.com

Safety-Med Products
www.safety-med.com

Standard Textile
www.standardtextile.com

Tronex Healthcare
www.tronexcompany.com

SURGICAL GOWNS/ APPAREL

Ahlstrom-Munksjö
www.ahlstrom-munksjo.com

Cardinal Health
www.cardinalhealth.com

Care + Wear
www.careandwear.com

Dynarex Corporation
www.dynarex.com

HEATJAC
www.heatjac.com

ImageFIRST
www.imagefirst.com

Isikel Medical Supplies
www.isikel.com

Kimberly-Clark Professional
www.kcprofessional.com

Marketlab
marketlab.com

MAXAIR Systems
www.maxair-systems.com

Medicom
medicom.com

Medtronic
www.medtronic.com

ProTEC-USA
www.protecusaproducts.com

Ruhof Corporation
www.ruhof.com

Safety-Med Products
www.safety-med.com

Standard Textile
www.standardtextile.com

SURGICAL MASKS

3M
www.3m.com/medical

Ahlstrom-Munksjö
www.ahlstrom-munksjo.com

AliMed
www.alimed.com

Dynarex Corporation
www.dynarex.com

Isikel Medical Supplies
www.isikel.com

Kimberly-Clark Professional
www.kcprofessional.com

Marketlab
marketlab.com

MAXAIR Systems
www.maxair-systems.com

Medgluv
www.medgluv.com

Medicom
medicom.com

Mölnlycke Health Care
www.molnlycke.us

Myco Medical
www.mycomedical.com

S2S Global
www.s2s-global.com

Safety-Med Products
www.safety-med.com

STERIS
www.steris.com

QUALITY CONTROL & TESTERS

BIOLOGICAL INDICATORS

3M
www.3m.com/medical

Advanced Sterilization Products
www.asp.com

EMSL Analytical
www.EMSL.com

Getinge
www.getinge.com/us

Healthmark Industries
hmark.com

Hygiena
www.hygiena.com/healthcare

Propper Manufacturing Co.
www.proppermfg.com

STERIS
www.steris.com

Tuttnauer USA
https://tuttnauerusa.com/

Xstream Infection Control
www.xstreamic.com

CHEMICAL INTEGRATORS

3M
www.3m.com/medical

EMSL Analytical
www.EMSL.com

Getinge
www.getinge.com/us

Healthmark Industries
hmark.com

Propper Manufacturing Co.
www.proppermfg.com

Serim Research
www.Serim.com

STERIS
www.steris.com

Tuttnauer USA
https://tuttnauerusa.com/

CHEMICAL/GAS MONITORS

3M
www.3m.com/medical

CS Medical
www.csmedicalllc.com

EMSL Analytical
www.EMSL.com

Kem Medical Products
www.kemmed.com

Micro-Scientific
www.micro-scientific.com

Propper Manufacturing Co.
www.proppermfg.com

Serim Research
www.Serim.com

Xstream Infection Control
www.xstreamic.com

CLEANING PROCESS VERIFICATION/TOOLS

3M
www.3m.com/medical

Advanced Ultra-Violet Systems
www.advanceduvsystems.com

Belimed Infection Control
www.belimed.com

EMSL Analytical
www.EMSL.com

Healthmark Industries
hmark.com

Hygiena
www.hygiena.com/healthcare

Kinnos
www.kinnos.com

Propper Manufacturing Co.
www.proppermfg.com

Ruhof Corporation
www.ruhof.com

Scanlan International
www.scanlaninternational.com

Serim Research
www.Serim.com

STERIS
www.steris.com

UMF - PerfectCLEAN
perfectclean.com

RESPIRATOR FIT TESTERS

Cardinal Health
www.cardinalhealth.com

STERILITY ASSURANCE PRODUCTS/TESTERS

3M
www.3m.com/medical

Advanced Sterilization Products
www.asp.com

C Change Surgical
www.cchangesurgical.com

EMSL Analytical
www.EMSL.com

Getinge
www.getinge.com/us

Healthmark Industries
hmark.com

Propper Manufacturing Co.
www.proppermfg.com

STERIS
www.steris.com

Tuttnauer USA
https://tuttnauerusa.com/

Xstream Infection Control
www.xstreamic.com

UV DISINFECTION VALIDATION/DOSAGE INDICATOR

American Ultraviolet
www.AmericanUltraviolet.com

EMSL Analytical
www.EMSL.com

Intellego Technologies
uvcdosimeters.com

Propper Manufacturing Co.
www.proppermfg.com

Sterilray
sterilray.com

The HUBSCRUB Company
www.hubscrub.com

SHARPS SAFETY/ NEEDLESTICK PROTECTION

DISPENSER BOXES

BD
www.bd.com

Myco Medical
www.mycomedical.com

Safety-Med Products
www.safety-med.com

NEEDLE PROTECTION/ SHARPS SAFETY DEVICES

Advanced Medical Innovations
www.amiwelisten.com

AliMed
www.alimed.com

Ansell Healthcare
www.ansell.com

B. Braun Medical
www.bbraunusa.com

Baxter
www.hill-rom.com

BD
www.bd.com

Healthmark Industries
hmark.com

ICU Medical
www.icumed.com

Key Surgical
www.keysurgical.com

Marketlab
marketlab.com

Medtronic
www.medtronic.com

Myco Medical
www.mycomedical.com

Owen Mumford
www.owenmumford.com

Retractable Technologies
www.retractable.com

SHARPS DISPOSAL/ CONTAINERS/ TRANSFER DEVICES

Advanced Medical Innovations
www.amiwelisten.com

AliMed
www.alimed.com

Ansell Healthcare
www.ansell.com

Baxter
www.hill-rom.com

BD
www.bd.com

Cardinal Health
www.cardinalhealth.com

Dynarex Corporation
www.dynarex.com

Healthmark Industries
hmark.com

ICU Medical
www.icumed.com

Marketlab
marketlab.com

Medtronic
www.medtronic.com

Myco Medical
www.mycomedical.com

Safety-Med Products
www.safety-med.com

STERIS
www.steris.com

STERILE PROCESSING

AUTOCLAVES/STEAM STERILIZERS

Belimed Infection Control
www.belimed.com

Getinge
www.getinge.com/us

Isikel Medical Supplies
www.isikel.com

Midmark
www.midmark.com

STERIS
www.steris.com

Tuttnauer USA
https://tuttnauerusa.com/

AUTOMATED SCOPE/ PROBE/DEVICE REPROCESSORS

Advanced Sterilization Products
www.asp.com

Cantel Medical Corp.
www.cantelmedical.com

Cardinal Health
www.cardinalhealth.com

CIVCO Medical Solutions
www.civco.com

Nanosonics
www.nanosonics.us

Olympus America
www.olympusamerica.com

Pure Processing
www.pure-processing.com

STERIS
www.steris.com

DEVICE TRANSPORT

Belimed Infection Control
www.belimed.com

BELINTRA
belintra.us/en

Case Medical
www.casemed.com

CIVCO Medical Solutions
www.civco.com

Healthmark Industries
hmark.com

Metro - InterMetro Industries Corp.
www.metro.com

Olympus America
www.olympusamerica.com

Pegasus Medical Concepts
pegasusmedical.net

Ruhof Corporation
www.ruhof.com

STERIS
www.steris.com

STERIS IMS
www.steris-ims.com

Summit Medical LLC
www.instrusafe.com

Torvan Medical
www.torvanmedical.com

ETO STERILIZING UNITS

3M
www.3m.com/medical

HLD PASTEURIZATION

Cenorin
www.cenorin.com

HYDROGEN PEROXIDE GAS/VAPOR STERILIZERS

Advanced Sterilization Products
www.asp.com

SteraMist Disinfection
www.steramist.com

STERIS
www.steris.com

Tuttnauer USA
https://tuttnauerusa.com/

LIQUID CHEMICAL STERILIZERS

Belimed Infection Control
www.belimed.com

Micro-Scientific
www.micro-scientific.com

STERIS
www.steris.com

LOW TEMPERATURE STERILIZERS

3M
www.3m.com/medical

Advanced Sterilization Products
www.asp.com

STERIS
www.steris.com

MEDICAL DEVICE DRYING CABINETS/SYSTEMS

Air Clean Systems
www.aircleansystems.com

Belimed Infection Control
www.belimed.com

Cenorin
www.cenorin.com

CIVCO Medical Solutions
www.civco.com

CS Medical
www.csmedicalllc.com

H+H SYSTEM
www.hhsystem.com

Olympus America
www.olympusamerica.com

Steelco USA
www.steelcogroup.com

STERIS
www.steris.com

STERIS IMS
www.steris-ims.com

Torvan Medical
www.torvanmedical.com

REPROCESSING SERVICES & PRODUCTS

Baxter
www.hill-rom.com

Belimed Infection Control
www.belimed.com

Cenorin
www.cenorin.com

Ecolab Healthcare
www.ecolab.com/healthcare

Five Star Surgical
www.fivestarcompanies.com

Hospital Safety Solutions
www.hospitalsafetysolutions.com

Metro - InterMetro Industries Corp.
www.metro.com

Nanosonics
www.nanosonics.us

oneSource Document Site
www.onesourcedocs.com

Pure Processing
www.pure-processing.com

Ruhof Corporation
www.ruhof.com

S2S Global
www.s2s-global.com

Serim Research Corporation
www.serim.com

SpecialtyCare
specialtycareus.com

STERIS
www.steris.com

STERIS IMS
www.steris-ims.com

Summit Medical LLC
www.instrusafe.com

Surgio Health
www.surgio.com

Surgmed Group
www.surgmed.com

Torvan Medical
www.torvanmedical.com

Tuttnauer USA
https://tuttnauerusa.com/

VERDA Water Quality
www.mmicmedical.com/products/water-quality-systems

STERILIZATION CONTAINERS/TRAYS

Advanced Sterilization Products
www.asp.com

Aesculap
www.aesculapusa.com

BELINTRA
belintra.us/en

Case Medical
www.casemed.com

Cygnus Medical
www.cygnusmedical.com

Hänel Storage Systems
www.sterilestorage.com

Isikel Medical Supplies
www.isikel.com

Midmark
www.midmark.com

ONETRAY
https://onetray.com/

Pegasus Medical Concepts
pegasusmedical.net

Scanlan International
www.scanlaninternational.com

STERIS
www.steris.com

Summit Medical LLC
www.instrusafe.com

STERILIZATION PACKAGING/WRAP/ POUCHES

Advanced Sterilization Products
www.asp.com

Ahlstrom-Munksjö
www.ahlstrom-munksjo.com

Certol International
www.certol.com

Cygnus Medical
www.cygnusmedical.com

Dynarex Corporation
www.dynarex.com

Isikel Medical Supplies
www.isikel.com

Kimberly-Clark Professional
www.kcprofessional.com

Medicom
medicom.com

Propper Manufacturing Co.
www.proppermfg.com

Safety-Med Products
www.safety-med.com

Standard Textile
www.standardtextile.com

STERIS
www.steris.com

ULTRASONIC CLEANERS

Ahlstrom-Munksjö
www.ahlstrom-munksjo.com

Belimed Infection Control
www.belimed.com

Certol International
www.certol.com

Cygnus Medical
www.cygnusmedical.com

Dynarex Corporation
www.dynarex.com

Isikel Medical Supplies
www.isikel.com

Kimberly-Clark Professional
www.kcprofessional.com

Marketlab
marketlab.com

Propper Manufacturing Co.
www.proppermfg.com

Safety-Med Products
www.safety-med.com

STERIS
www.steris.com

Torvan Medical
www.torvanmedical.com

WASHER-DECONTAMINATOR CARTS

Belimed Infection Control
www.belimed.com

STERIS
www.steris.com

Steelco USA
www.steelcogroup.com

TBJ
www.tbjinc.com

WASHER-DISINFECTORS

Belimed Infection Control
www.belimed.com

Cantel Medical Corp.
www.cantelmedical.com

Cenorin
www.cenorin.com

CIVCO Medical Solutions
www.civco.com

CS Medical
www.csmedicalllc.com

Steelco USA
www.steelcogroup.com

STERIS
www.steris.com

Summit Medical LLC
www.instrusafe.com

Tuttnauer USA
https://tuttnauerusa.com/

SURVEILLANCE/ SOFTWARE/ EDUCATION

ALERT SYSTEMS

Baxter
www.hill-rom.com

BD
www.bd.com

Belimed Infection Control
www.belimed.com

Dynarex Corporation
www.dynarex.com

Nanosonics
www.nanosonics.us

Premier
www.premierinc.com

Pryme Audio Technologies
www.pryme.com

ANTIMICROBIAL STEWARDSHIP/ DRUG UTILIZATION MANAGEMENT

BD
www.bd.com

BioFire Diagnostics
www.Biofiredx.com

Hänel Storage Systems
www.sterilestorage.com

Premier
www.premierinc.com

COMPLIANCE AUDITING SERVICE

BD
www.bd.com

Belimed Infection Control
www.belimed.com

Ecolab Healthcare
www.ecolab.com/healthcare

Nanosonics
www.nanosonics.us

Quality Processing Resource Group
www.qprgllc.com

Ruhof Corporation
www.ruhof.com

Surgio Health
www.surgio.com

symplr
www.symplr.com

DATA MINING/ANALYTICS

BD
www.bd.com

Belimed Infection Control
www.belimed.com

Censis Technologies
censis.com

Centrak
www.centrak.com

Ecolab Healthcare
www.ecolab.com/healthcare

Premier
www.premierinc.com

Surfacide
www.surfacide.com

INSTRUMENT TRACKING SYSTEMS

Censis Technologies
censis.com

Hänel Storage Systems
www.sterilestorage.com

Key Surgical
www.keysurgical.com

Nanosonics
www.nanosonics.us

Olympus America
www.olympusamerica.com

Scanlan International
www.scanlaninternational.com

SpecialtyCare
specialtycareus.com

STERIS
www.steris.com

Surgio Health
www.surgio.com

Listings *continue on page 51* ▶

REPORTING/ SURVEILLANCE SOFTWARE

Advantage Support Services
advantagesupportservices.com

BD
www.bd.com

Belimed Infection Control
www.belimed.com

Ecolab Healthcare
www.ecolab.com/healthcare

Hänel Storage Systems
www.sterilestorage.com

Premier
www.premierinc.com

Steriliz UVC Disinfection
www.rduvc.com

Surgio Health
www.surgio.com

Tru-D SmartUVC
www.tru-d.com

TRAINING/EDUCATION/ SIGNAGE

3M
www.3m.com/medical

Advantage Support Services
advantagesupportservices.com

Aesculap
www.aesculapusa.com

AliMed
www.alimed.com

BD
www.bd.com

Belimed Infection Control
www.belimed.com

Cantel Medical Corp.
www.cantelmedical.com

Ecolab Healthcare
www.ecolab.com/healthcare

Finsen Tech
www.finsentech.com

Key Surgical
www.keysurgical.com

Kinnos
www.kinnos.com

Marketlab
marketlab.com

oneSource Document Site
www.onesourcedocs.com

SpecialtyCare
specialtycareus.com

STERIS
www.steris.com

Surgio Health
www.surgio.com

TORK Essity
www.torkusa.com

WIRELESS TEMPERATURE MONITORING

Baxter
www.hill-rom.com

Centrak
www.centrak.com

WASTE MANAGEMENT

BIOHAZARD/INFECTIOUS WASTE CONTAINMENT

AliMed
www.alimed.com

Ansell Healthcare
www.ansell.com

Baxter
www.hill-rom.com

CIVCO Medical Solutions
www.civco.com

Cygnus Medical
www.cygnusmedical.com

Marketlab
marketlab.com

Medtronic
www.medtronic.com

Midmark
www.midmark.com

Rubbermaid Commercial Products
www.rubbermaidcommercial.com

Safety-Med Products
www.safety-med.com

SOLIDIFIERS

AliMed
www.alimed.com

Ansell Healthcare
www.ansell.com

Baxter
www.hill-rom.com

CIVCO Medical Solutions
www.civco.com

Cygnus Medical
www.cygnusmedical.com

Medtronic
www.medtronic.com

Midmark
www.midmark.com

Safety-Med Products
www.safety-med.com

SPILL KITS/ CONTAINMENT

Air Clean Systems
www.aircleansystems.com

AliMed
www.alimed.com

CIVCO Medical Solutions
www.civco.com

CS Medical
www.csmedicalllc.com

Ecolab Healthcare
www.ecolab.com/healthcare

Kem Medical Products
www.kemmed.com

Marketlab
marketlab.com

Medtronic
www.medtronic.com

Safety-Med Products
www.safety-med.com

STERIS IMS
www.steris-ims.com

SUSTAINABILITY

MEIKO USA
www.meiko.us

WASTE MANAGEMENT SYSTEMS

Air Clean Systems
www.aircleansystems.com

MEIKO USA
www.meiko.us

Midmark
www.midmark.com

WATER QUALITY

WATER PURIFICATION TESTING/QUALITY ASSURANCE

EMSL Analytical
www.EMSL.com

WATER PURIFICATION/ FILTRATION/ DISINFECTION SYSTEMS

American Ultraviolet
www.AmericanUltraviolet.com

Atlantic Ultraviolet Corporation
www.AtlanticUltraviolet.com

CS Medical
www.csmedicalllc.com

EMSL Analytical
www.EMSL.com

MMIC Medical Systems
www.mmicmedical.com

Pall Corp.
www.pall.com

Quality Processing Resource Group
www.qprgllc.com

RGF Environmental Group
www.rgf.com

Sterilray
sterilray.com

VERDA Water Quality
www.mmicmedical.com/products/water-quality-systems

WOUND CARE

ADHESIVES/ADHESIVE REMOVERS

3M
www.3m.com/medical

AliMed
www.alimed.com

Choyce Products
www.choyce-products.com

Dale Medical Products
www.dalemed.com

Eloquest Healthcare
www.eloquesthealthcare.com

Micro-Scientific
www.micro-scientific.com

ANTIMICROBIAL/SILVER DRESSINGS/BANDAGES

3M
www.3m.com/medical

AliMed
www.alimed.com

Coloplast
www.coloplast.us

Dynarex Corporation
www.dynarex.com

Medtronic
www.medtronic.com

Medway Group
www.medwayus.com

Mölnlycke Health Care
www.molnlycke.us

BANDAGES & DRESSINGS

3M
www.3m.com/medical

AliMed
www.alimed.com

Cardinal Health
www.cardinalhealth.com

Choyce Products
www.choyce-products.com

Coloplast
www.coloplast.us

Dale Medical Products
www.dalemed.com

Dynarex Corporation
www.dynarex.com

Isikel Medical Supplies
www.isikel.com

Medicom
medicom.com

Medtronic
www.medtronic.com

Mölnlycke Health Care
www.molnlycke.us

Tricol Biomedical
www.tricolbiomedical.com

DEBRIDEMENT PRODUCTS

B. Braun Medical
www.bbraunusa.com

Coloplast
www.coloplast.us

Tricol Biomedical
www.tricolbiomedical.com

DRAINS/SUCTION

Cardinal Health
www.cardinalhealth.com

Isikel Medical Supplies
www.isikel.com

Medela Healthcare
www.medelahealthcare.com

HEMOSTATIC WOUND CARE PRODUCTS

Medicom
medicom.com

Tricol Biomedical
www.tricolbiomedical.com

HYDROGEL ADHESIVE DRESSINGS

AliMed
www.alimed.com

NEGATIVE PRESSURE WOUND CARE THERAPY (NPWT)

3M
www.3m.com/medical

Cardinal Health
www.cardinalhealth.com

Medela Healthcare
www.medelahealthcare.com

PRESSURE ULCER PREVENTION PRODUCTS

AliMed
www.alimed.com

Ansell Healthcare
www.ansell.com

Coloplast
www.coloplast.us

Dale Medical Products
www.dalemed.com

HoverTech International
hovermatt.com

KelCor
www.kelcortape.com

Mölnlycke Health Care
www.molnlycke.us

Spry Therapeutics
www.sprytx.com

Stryker Sage
www.stryker.com

SURGICAL SITE SKIN PREP

3M
www.3m.com/medical

AliMed
www.alimed.com

BD
www.bd.com

Dynarex Corporation
www.dynarex.com

Kimberly-Clark Professional
www.kcprofessional.com

Medtronic
www.medtronic.com

Mölnlycke Health Care
www.molnlycke.us

Scanlan International
www.scanlaninternational.com

WOUND CLEANSERS

3M
www.3m.com/medical

Angelini Pharma
www.angelini-us.com

B. Braun Medical
www.bbraunusa.com

Cardinal Health
www.cardinalhealth.com

Coloplast
www.coloplast.us

Dynarex Corporation
www.dynarex.com

Medtronic
www.medtronic.com

WOUND CLOSURE PRODUCTS

3M
www.3m.com/medical

Baxter
www.hill-rom.com

Dynarex Corporation
www.dynarex.com

Medtronic
www.medtronic.com

Myco Medical
www.mycomedical.com

Tricol Biomedical
www.tricolbiomedical.com

The ups and downs of SPD from 2022 to 2023

by Kara Nadeau

Illustration 59960213 © Apinancgphoto | Dreamstime.com

The average annual salary of Sterile Processing Department (SPD) professionals is up 3% this year at $69,217, compared with $67,096 in 2022. What is surprising is a 14% drop in survey respondents reporting a yearly pay increase (56% in 2023 down from 70% in 2022). Those reporting the receipt of bonuses in 2023 held steady from 2022, at 24%.

These results and others from the 2023 *Healthcare Purchasing News* SPD Salary Survey provide insights into not only compensation, but also job security, certification, continuing education, and shifting roles and responsibilities. SPD professionals commented on their individual experiences and offered their thoughts on the field and its future.

Fluctuations in salary by title, males still lead in pay

While there were no dramatic shifts in salary by role from 2022 to 2023, there were some slight ups and downs, likely because of changing demographics of survey respondents from year to year.

The total number of SPD professionals taking part in the survey rose, at 378 respondents compared with 177 in 2022. Looking at the titles of those who participated this year, there were 8% fewer Lead SPD Technicians and 5% fewer SPD Technicians/Coordinators compared with last year. Other shifts in respondents by title were up or down by 4% or less.

When looking at reported pay by title, the survey data showed average annual increases for SPD Supervisors ($61,267 up from $58,863), Surgical Instrument Technicians ($57,034 up from $55,055), SPD Managers ($88,210 up from $86,756), SPDTechnician/Coordinators ($52,566 up from $49,083) and SPD Directors ($140,674 up from $139,867).

Decreases were found among the average annual salaries of SPD Educators ($64,586 down from $65,500), Lead SPD Technicians ($39,321 down from $41,176), Certified Medical Device Reprocessing Technicians ($44,485 down from $45,833) and OR Liaisons ($51,345 down from $52,500).

Again, this year those respondents identifying as male earned more than those identifying as female: $79,240 compared with $66,209, respectively, with 2% of those surveyed choosing not to disclose their gender.

"I feel like our profession is severely underpaid for the knowledge, material and extensive memory retention we are needed for daily/weekly duties," said Sean Weir, CRCST, CIS, CHL, Sterile Processing Educator, UPMC. "We need to know microbiology, infection prevention, anatomy, chemistry, and then the vast instruments out there. The world needs to understand that this field is no longer a 'entry level' job and more a career-oriented profession that is not a glorified dishwasher. It is a shame that the healthcare market is being paid less than those at fast food restaurants or

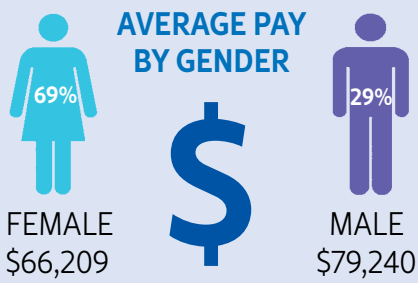
AVERAGE ANNUAL BASE SALARY: $69,217

INCREASE OF BASE SALARY SINCE LAST YEAR?

56% Yes, it increased
36% It remained the same
8% No, it decreased

2020 AVERAGE ANNUAL BASE SALARY: $67,096

AVERAGE PAY BY GENDER



FEMALE $66,209

MALE $79,240

2% of survey respondents chose not to disclose their gender

PERCENTAGE INCREASE OVER LAST YEAR 3%

EXPECTING A BONUS THIS YEAR?

52% No
24% Yes
24% Don't know

2013 AVERAGE ANNUAL BASE SALARY: $53,605

retail, we are aiding in the saving of one's life one tray at a time."

"If you Google 'sterile processing jobs in the U.S.,' you get over 2 million open positions in some form related to sterile processing," said Lawayne Perkins, President of Consulting Services, SIPS. "Clearly, the need for these professionals is more significant than ever; however, provisions haven't changed. There have been no significant or dynamic salary changes in the past decade, and according to the Bureau of Labor Statistics, the mean wage for 'medical instruments preparer,' i.e., sterile processing, is less than your local Starbucks wage."

Lawayne Perkins

Alessandra Nicholson, CIS, CHL, CRCST, is Founder and President of The Candray Institute, providing healthcare education and training, professional development, and employee advocacy for marginalized employees. Understanding how many SPD professionals come from low-income backgrounds, she works to teach financial literacy and negotiation skills so they can advocate for higher wages.

Alessandra Nicholson

"I have found many SPD Techs need training around negotiation, especially when they're new hires and often don't understand there is a pay scale and the opportunity to ask for higher pay," said Nicholson.

She noted another major issue in SPDs: staff members being asked to take on responsibilities beyond their title and paygrade. She stated:

"A Lead SPD Tech may be asked to perform to the level of Supervisor, a Supervisor to that of a Manager, and a Manager to that of a Director. This is problematic when they don't get compensated for that higher level work and don't have that higher level title or pay grade to carry onto their next employer."

Damien Berg, BA, BS, CRCST, AAMIF, Vice President of Strategic Initiatives, Healthcare Sterile Processing Association (HSPA), said he sees an upswing in the SPD profession on many levels across the U.S. but adding "that doesn't mean we are where we need or deserve to be." He stated:

Damien Berg

"Over the years, we have seen so many challenges and staffing/pay/recognition have always been high on the list of concerns voiced by our professionals; however, we continue to fight, lead and work with our leadership to make these challenges better and not just talking points."

"I will always be that positive warrior for change, and that change happens through action," Berg added. "When we are feeling all the pressures and not feeling appreciated, and even when we are understaffed and underpaid, we must not only show up but prove our value and worth. That is when we will start to see sustaining, positive change. It will be teamwork, education and documentation that will open doors for our profession."

The impact of education and location on SPD salaries

As in past years, the higher the level of education reported by SPD professionals, the higher the annual average salary. Those with post graduate degrees (2% of respondents) reported taking home an average of $92,289 per year, this was down from $103,384 in 2022.

SPD professionals who had earned bachelor's degrees (13% of respondents) reported an average annual salary of $76,074, down from $81,354 last year. Among respondents with associate degrees (26% of respondents), average salary was $59,245, down from $66,519 in 2022. SPD professionals with high school as their highest level of education reported annual average pay of $57,234, up from $56,310 last year. Looking at the demographic data, there were fewer survey respondents reporting a high school level education compared with last year (32% down from 46% in 2022).

Geography played a role in compensation once again in 2023, with each region showing pay increases over 2022. SPD professionals from the Pacific states had an average annual salary of $91,268 (up from $86,916), the Northeastern states $73,190 (up from $70,000), Mountain states $69,754 (up from $67,148), Central states $64,278 (up from $62,974), and Southeastern states $55,643 (up from $53,541).

SPD professionals in urban areas (41% of respondents) reported the highest average annual pay in 2023 at $75,123 (up from $73,224), followed by those in the suburbs (35% of respondents) at $72,093 (up from $68,500), and rural areas (24% of respondents) at $58,821 (up from $53,075).

With regards to facility type, SPD professionals working for IDN/alliance/multi-group institutions earned the highest at $93,120 annually (up from $89,148), followed by teaching hospitals at $82,564 (up from $79,535), standalone hospitals at $60,290 (up from $58,070) and surgicenters/ambulatory centers at $51,234 (up from $52,261).

SPD feeling secure, but are staffing shortages behind it?

The survey findings indicated that SPD professionals are feeling more secure in their jobs, with 94% feeling "very or somewhat secure," compared with 85% in 2022.

SALARY BY TITLE

SPD Manager	25%	$88,210
SPD Supervisor	15%	$61,267
Lead SPD Technician	11%	$39,321
SPD Technician/Coordinator	12%	$52,566
SPD Director	9%	$140,674
Educator	4%	$64,586
Surgical Instrument Technician	8%	$57,034
CMDRT – Cert Medical Device Reprocessing Tech	-1%	$44,485
OR Liaison	1%	$51,345
Other	14%	n/a

FEMALE		
High School	32%	$57,234
Associate's Degree(s)	26%	$59,245
Bachelor's Degree(s)	13%	$63,230
Post-Graduate	2%	$92,289
MALE		
High School	13%	$58,123
Associate's Degree(s)	5%	$100,123
Bachelor's Degree(s)	5%	$119,232
Post-Graduate	4%	$123,143

SALARY BY CERTIFICATION

Already certified	92%	$69,120
In the process of obtaining certification	5%	$60,254
Considering certification	2%	$50,125
Not certified	1%	$59,129

Average annual salary increased by time in the SPD profession, with those with 25+ years of experience earning an average of $84,153 and those with less than 2 years $48,290.

Several of the SPD professionals interviewed for this article cited staffing shortages as a major challenge to the profession. Could it be those in the profession are feeling more secure because there is less competition and more opportunities?

"For the 40 locations I oversee, there are over 75 SPD vacant positions, some with a department of 12-15 and of that eight are travelers," said Weir.

"I think it's fair to say that most areas in healthcare are struggling for workers and sterile processing is no different," said Janene McGlynn, CRCST, CIS, CER, CHL, Sterile Processing Lead, Cleveland Clinic. "Even before the pandemic there was a bit of a healthcare worker shortage, and that struggle has since been exacerbated."

Janene McGlynn

"We are not alone with these concerns and questions about what is next, how we can find more help, and how we can retain qualified staff," said Berg. "With a lot of jobs in healthcare facing critical shortages, the challenge will be how we stand out and get the assistance we need."

"The short answer is continuing to do the great work we can by providing outstanding processing of medical devices," Berg added. "Do not give anyone a chance to doubt our work or dedication - and keep us in the positive light with hospital leadership so they are more inclined to support well-functioning and productive departments."

Fewer staff members, greater errors

HSPA President Monique L. Jelks, BA, MSOL, CRCST, Clinical Educator, Sterile Processing, WellStar Cobb, Vinings, Paulding & Douglas Hospitals, said a major challenge SPD professionals face today is "the excessive amount of work needed to keep up with the surgical case volume."

Monique L. Jelks

"Overtime hours have always been desired, however, now they are demanded," said Jelks.

According to Jelks, there has been an increase in tray errors in many level one trauma facilities, which she credits to "fatigued technicians who work excessive amounts of overtime to the point of exhaustion - losing their normal focus skills."

McGlynn said she has seen more SPD technicians leaving their jobs and "searching for better accommodations and culture," including adherence to industry standards, stating:

"We all have a higher awareness to changes in the standards. It's not so much of putting off changes, but more planning on how to implement new guidelines. More people in SPD are buying into change, which makes our jobs more efficient and foolproof. This is creating a circle effect, for our new and veteran techs being educated to new standards and have better expectations for ourselves."

An aging workforce

Over half (52%) of survey respondents were age 51 or older, and among those, 18% were between the ages of 61-70. Nearly half (45%) fell into the 31-50 age range, while only 1.5% were between the ages of 21-30.

Kim Hughes, BA, CRCST, CHL, CIS, Central Processing Manager, Good Samaritan Hospital, Vincennes, Ind., said the aging workforce and high turnover have played a role in her department's staffing challenges, stating:

Kim Hughes

"There are quite a few of the staff that are at retirement age and when they retire, we lose that experience. Currently, when we do hire, we must understand that a lot of the ones hired will stay approximately a year and then move on. In SPD it takes about a year to feel comfortable in what you are doing and not be overwhelmed. Even if staffing is not a concern, the work is rigorous and physically hard on the body and there are safety concerns which one must always be aware."

Hughes added: "Yes, we have had staffing challenges but the staff that are here are dedicated! One had thought of retiring last year but didn't want to leave us any shorter at that time. (Who else would do that?) I think the staff who are working through the shortages are some of the hardest working and caring. The shortages are hard, but I am very thankful for the people who are here."

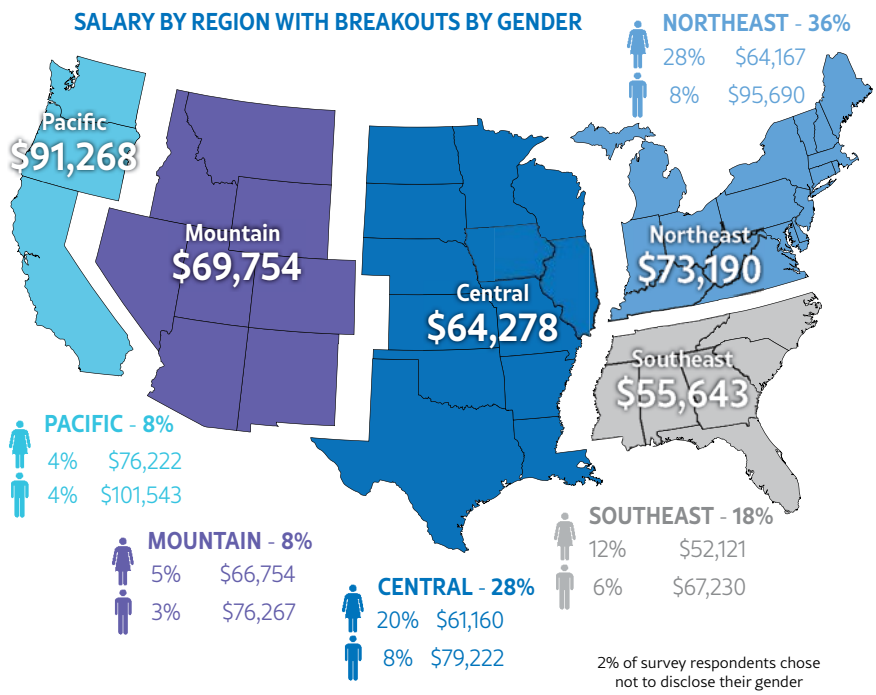
Travelers can both help and harm

Today's environment of mandatory overtime is driving some SPD technicians to leave the "traditional role in hospitals to take on contract work and or travel assignments," according to Jelks.

"They can work so many weeks at a time then take off one or two weeks in between the 8– to 13-week assignments and get paid twice as much," said noted. "Although contract work positions have a downside, such as full-coverage healthcare insurance and desired work location, it is still today a very desirable for technicians working above 40 hours per week to make surgery ends meet."

Weir said while "travelers are a great way to fix a short-term staffing shortage" it is not a sustainable solution, stating:

"My issue with travelers is simple, they are not invested employees of the location and just want to work their 6–13-week contract and move on. Hospitals across the world cannot survive with this



current model. We need invested workers to improve the locations and improve patient care, but then that goes back to paying better."

Nicholson said the opportunity to travel changed her life and she encourages other SPD professionals to pursue a travel career, stating:

"I was working for a hospital in my hometown making minimum wage when we hired a traveler, and she told our team about opportunities to advance our education and careers. One by one we each took steps to become certified and take on travel positions. As a young person, I found myself traveling across the country, which really set off my career. In those first three years, I doubled my income each year."

Nicholson added that it is not just young, single SPD professionals who are benefiting from the travel trend but also more experienced individuals and those with families.

"I see moms and dads traveling to make money to send back home. But there are disparities when you compare travel opportunities for nurses with those for SPD. For example, nurses are typically provided room and board as part of their travel contracts and even the opportunity to fly home on weekends to stay connected with their families. Most SPD travel positions don't offer these benefits."

The need to nurture the next generation

Those interviewed cited the need to educate students, down to the high school and even grade school level, on the sterile processing profession to help recruit and cultivate the next generation of professionals.

McGlynn said one positive side effect of the current SPD staffing shortages is that "more hospitals are actively creating training programs, reaching out to younger individuals through grade schools and even up to college levels."

"The industry as a whole needs to promote the field more heavily in 10th and 11th graders as a career path, reach out to community colleges and figure out to get a program started, not just a "read the book" course but a true hands-on approach," said Weir.

Certification levels hold steady, with higher pay reported

When asked if they were certified, 92% of respondents said "yes," which was on par with last year at 91%, and the same percentage of SPD professionals said they were in the process of becoming certified at 5% in both 2023 and 2022. Respondents who were already certified reported the highest average annual pay at $69,120, followed by those in the process of certification at $60,254.

When asked if their employer required certification, the response was similar to last year at 69% saying "yes" (70% in 2022). Those reporting employers without certification requirements was only slightly higher (28% in 2023, 26% in 2022). Additionally, 3% said their employers were considering instituting certification as requirement, compared with 4% last year.

When asked whether their employers give them higher levels of compensation for obtaining certified education units/points, only 14% said 'yes.'

"I believe that decision makers who control the financial resources fail to see the true value or equity in this role," said Perkins. "Although SPD does not generate income directly, they do so indirectly. And this department can be a preventative measure to avoid negative patient outcomes. As a rule, healthcare facilities with better wages will attract better professionals and thereby strengthen the facility's ability to court preferred physicians."

"I believe there must be public advocacy for this position," he added. "The last thing we would want to happen are national strikes from this department. And contrary to some popular belief, sterile processing roles, or experienced processing roles, are not easy to backfill. It would be a disaster if a national strike was to ever happen, and it would ultimately paralyze our healthcare system, nationwide."

Respondents certified by the HSPA dropped to 67% in 2023 from 76% in 2022, which could be a leveling off from a 7% jump from 2021 to 2022 (69% to 76% from one year to the next). Those certified by the Certification Board for Sterile Processing & Distribution (CBSPD), fell as well at 25% in 2023 down from 28% in 2022, whereas in 2021, 28% of respondents reported being CBSPD certified.

"Lately it has been increasingly difficult to find a location to take the certification exams," McGlynn commented. "In some cases, there is only one location in a major metropolitan area. Globally this is also an issue as some SPD Professionals outside the US are required to travel into the country to take their exams. There must be a better way to offer exam by proxy."

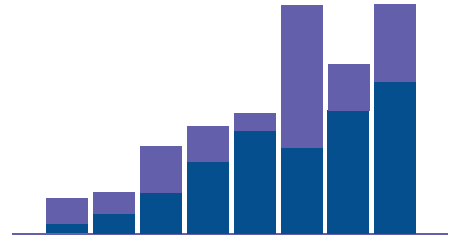
Association for the Advancement of Medical Instrumentation (AAMI) certifications were up at 23% in 2023, from 21% in 2022, as were those for the Association of Surgical Technologists (AST) at 10% in 2023 from 7% in 2022. Respondents with Association of periOperative Registered Nurses (AORN) certifications held steady from last year at 8%.

Shifts in reported specific certifications varied slightly from last year:

- Certified in Healthcare Leadership Strategies (CHL): 32% in 2023 up from 31% in 2022

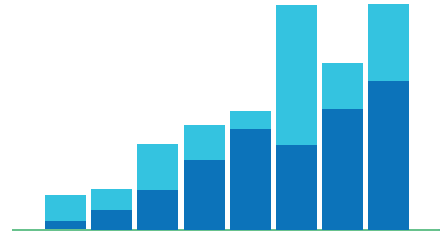
SALARY BY TYPE OF FACILITY

Hospital, Standalone	54%	$60,290
Hospital, Teaching Facility	20%	$82,564
IDN/Alliance/ Multi-Group	14%	$93,120
Surgi-Center / Ambulatory Center	8%	$51,234
Clinic	2%	$61,232



SALARY BY TIME IN SPD

Less than 2	3%	$48,290
2-4	4%	$51,209
5-9	17%	$56,243
10-14	15%	$61,908
15-19	17%	$66,190
20-24	18%	$67,908
More than 25	26%	$84,153



SALARY BY TIME AT FACILITY

Less than 2	20%	$62,129
2-4	19%	$76,250
5-9	26%	$75,298
10-14	9%	$64,870
15-19	9%	$68,740
20-24	7%	$54,109
More than 25	10%	$71,924

Thoughts on the future of SPD

HPN asked those interviewed for the article for their thoughts on the future of the SPD profession.

Damien Berg, BA, BS, CRCST, AAMIF, Vice President of Strategic Initiatives, Healthcare Sterile Processing Association (HSPA)

Berg acknowledged how healthcare facilities are "feeling the pinch" with increased expenses, decreased reimbursements and the need to stay competitive in the market with staffing, technology and capital expenditures to "meet the demand and needs of the patients." He feels the SPD profession is in "a unique position to help with those challenges by being one of the key players in surgical/perioperative services."

"Providing medical devices when the provider needs them, ensuring they are functioning appropriately and, of course, ensuring those devices are clean and sterile will all lead to the best patient outcomes and satisfied medical staff," said Berg. "As a department, if you can do this then you have the leverage you need to show the hospital leadership that supporting Sterile Processing through retention, recognition, pay and a positive work environment will pay off where it counts. It is a small investment into the growth of the facility and the care of the patient."

Kim Hughes, Central Processing Manager, PIH Health Good Samaritan Hospital, Los Angeles

"First and foremost, we as SPD professionals need to support each other – new people and people that have been in the department for years need help, need knowledge, and need understanding. We need directors that understand the why of what we do and the importance of education. We need the C-Suite to understand that while we are not a revenue generating department, we are important to patient's outcomes. For the future generations, I think we need recognition that certification is important."

"There are some in other departments that do not understand the complexity of what we do; it is believed that all instruments are washed and sterilized the same. This challenge is one that I feel that we can meet and overcome. We do this by communicating what we do and how we do it, by taking pride in our profession and increasing our knowledge, by helping co-workers to learn as much as we know, by sharing what we do with as many as we can in opportunities that we haven't done yet, such as going to schools or attending job fairs."

Monique L. Jelks, BA, MSOL, CRCST, Clinical Educator, Sterile Processing, WellStar Cobb, Vinings, Paulding & Douglas Hospitals

"Executives who have the oversight of sterile processing within their facility require education for how the departments produce instrument trays and equipment for surgery, L&D, and all the minor procedure clinics/departments in their facility. Education for executives will support both current and next-generation SPD professionals. Their education will better support the SPD with educational opportunities, equipment, instruments and, finally, will fill and or open new positions to meet daily sterile processing productivity demands."

Janene McGlynn, CRCST, CIS, CER, CHL, Sterile Processing Lead, Cleveland Clinic

"The future of SPD is evolving in a grand way. A lot of the top performers in our field are talking about all aspects of sterile processing through social media and networking. It has been very rewarding to ask a random person on the street if they know what sterile processing is and more people now can give a solid answer than ever before. Engagement with community is starting to spark interest in sterile processing, which is an awesome way to recruit people. I've been in the field for about 6 years and there is overwhelming positivity from those stepping up and doing things we used to think was a waste of time."

"I've seen so many people creating so many forms of media to share with one another, and we are better at supporting each other within our field. I know there are techs that feel alone or can't talk to their peers about ideas. Now, everything is at your fingertips. We are becoming voting members of AAMI, which we never thought was possible. Now that we are, our voices can be heard in the healthcare industry. It is a really good time to jump on that wave and bring change to you own department. So many of us have ideas on how to make our field better."

Alessandra Nicholson, CIS, CHL, CRCST, is Founder and President of The Candray Institute

Nicholson told a story that clearly supports the need for SPD professionals to advance their knowledge around finances and take steps to become financially stable to avoid becoming victims of the system:

"I worked in the SPD of a premier healthcare organization alongside a man who came to the U.S. from El Salvador and worked his way up to a supervisor position after 20 years. He was diagnosed with pancreatic cancer, couldn't work to keep his benefits, and lost everything: he lost his home, his wife had to return to El Salvador, and his daughter has remained in the states unattended, no savings account, nothing to back her up. That made me want to take the rose-colored glasses off SPD professionals and teach them that they can't just collect their bi-weekly paychecks and think everything will be great, especially because the job is so physical. They must think about bodily safety, financial safety and building stability outside of their jobs so they don't become trapped in the system."

"And I believe the more technicians become empowered in that way, the less they will let practice issues go on because they won't be in a position to do whatever anyone tells them to do. (For example), I don't have to run the instruments without washing them just because you told me to because I can afford to lose my job. Maybe I have built up a real estate portfolio or have another source of income that will allow me to sustain myself while I look for a place that is in better alignment with what I know must happen in the industry."

Lawayne Perkins, President of Consulting Services, SIPS

"The future of SPD is going to rely on the investment in technologies. Considering the incorporation of AI and other technologies it is imperative for healthcare professionals to acquire the skill set to be part of the hirable 10%. That's expected to be provision by 2025. That is experts indicate that only 10% of the population would have the necessary skill set to meet the work the demand this would also include healthcare."

Sean Weir, CRCST, CIS, CHL, Sterile Processing Educator, UPMC

"We need to educate the high school of our profession. No offense by any means by this next statement: Nurses do not make the hospital run, it is run by many various positions from SPD, EVS, facilities and more. But if you ask someone what field in a hospital they know about, it's a nurse. Walk down the street and ask people, they won't know our profession. There are many folks out there that think they couldn't function in a role within a hospital. Thinking about my last statement, (they) do not know about the other avenues in a hospital setting."

- Certified Sterile Processing Distribution Technician (CSPDT) 20% in 2023 up to 23% in 2023
- Flexible Endoscope Reprocessor Certification (CFER): 19% in 2023 up from 17% in 2022
- Certified Surgical Technician (CST): 12% in 2023 up from 10% in 2022
- SPD Technician Certification: 10% in 2023 up from 7% in 2022
- Certified Registered Central Service Technician (CRCST): 66% in 2023 up from 69% in 2022
- Certified Instrumentation Specialist (CIS): 30% in 2023 down from 32% in 2022
- Certified HSPA Instructor: 2% in 2023 down from 6% in 2022
- SPD Manager Certification (CSPDM): 4% in 2023 down from 5% in 2022

According to Hughes, staffing shortages have made it harder to find the time and resources for SPD departments to train new staff members and provide opportunities for current staff to advance in their education. She stated:

"When there are shortages in staff, it is a challenge to train new staff, to get education to all staff, to encourage staff to participate in meetings or associations and to not become burnt out. All those things are necessary to have a well-trained proactive staff, but we are focused on getting the needed instruments ready for cases because the patient is our first priority."

SPD professionals reporting 10 or more continuing education courses/lessons each year dropped from last year, at 80% in 2023 down from 88% in 2022, as did those who indicated they participated in 20 or more courses/lessons, 39% in 2023 down from 44% in 2022.

McGlynn's advice to current and next generation SPD professionals with regards to furthering their education and careers: "Let negativity go. Follow your own path." She stated:

"Get involved with your chapters whether you're new to the field or seasoned. Get your certifications. Hospitals are starting to look into upgrading our pay. Hopefully, that means the certifications will pay off for your efforts. Having a solid foundation from learning and retaining from your certifications will be key for your future. Share your knowledge with everyone. I am sharing all my resources with my coworkers. As a lead, I integrate listening to SPD podcasts during our shift when there is an interesting topic."

"We must cut the chains off everything that is gatekeeping education and information is the best way to support everyone," she added. "Information is going to help our SPDs get the equipment we need; being able to show data when asking for support from the C-suite. We should be building our confidence as professionals because we are professionals. Knowledge is going to help the individual build their skillset and become more valuable to their department."

Reporting, processes and technologies

When looking at hospital reporting structures and which functions report directly to the SPD department heads in their facilities, there was an 11% jump in survey respondents that said GI/Endoscopy reports to the head of SPD (41% in 2023 up from 30% in 2022).

There was a 4% increase across the board for storeroom, medical equipment cleaning/disinfection, and central transport reporting to the SPD department head compared with the 2022 survey results. Conversely, there was a 3% decrease in respondents who said decontamination and case carts reported to their department heads.

When asked if their facility had changed its methodology around the use of manufacturer instructions for use (IFU), there was a 9% increase in SPD professionals who reported changes, (25% in 2023 up from 16% in 2022). There was an 8% increase in those stating their facilities had put new measures (process and/or products) in place to further minimize the risk of reprocessing related outbreaks (52% in 2023 up from 44% in 2022).

Survey respondents that said their facilities use track and trace systems for their instruments increased by 3% (65% in 2023 up from 62% in 2022), while reporting use of sterile processing workflow management systems dropped by 7% (46% in 2023, down from 53% in 2022).

As in past years, most respondents use steam sterilization (98%). There was a decrease in those reporting use of hydrogen peroxide (76% in 2023 down from 85% in 2022), immediate use steam sterilization (41% in 2023 down from 50% in 2022), gas plasma (27% in 2023 down from 31% in 2022), and EtO (4% in 2023 down from 11% in 2022).

There was little change in those using Cidex OPA (31% in 2023 down from 32% in 2022), glutaraldehyde (12% in 2023 up from 10% in 2022), peracetic acid (25% both years), UV-C (2% both years), and ozone (2% both years).

Complex technologies prompt demand for advanced SPD solutions

"As the world of technology becomes more and more complex so does the advancement of instruments," said Weir. "Some instruments we are tasked to clean take an hour to just do the manual cleaning process, tie that in with the other 30-110 cases a day and it is just plain crazy. 3D printed models are being used more and more and their IFUs are so complex that we still need to reference them each time we get them in and sterilize them."

With regards to the growing complexity of surgical technology and its impact on SPD professionals, Jelks offered the example of reprocessing robotic arms, commenting on how it requires "a very labor-intensive process of inspecting and decontaminating."

"Robotic arms have a short life span, and technicians must be mindful of expiration indicators prior to and after reprocessing," said Jelks. "Departments without proper disinfection machines and equipment for reprocessing arms will have a harder time prioritizing and completing trays due to the amount of work it takes to manually reprocess robotic arms."

McGlynn feels growing education among SPD professionals has prompted them to increasingly demand of decision makers the technologies they need to perform effective and safe instrument reprocessing. She stated:

"I have noticed a shift in the way funds are being invested into our departments. Ideally, we want every SPD to have all the bells and whistles to provide top notch care every time an instrument is reprocessed. In the past, you would not even bother asking for a borescope because most techs were not even aware of what a borescope is. Now, they are more educated enough to ask the hospital to provide one so they can properly follow the IFU. It seems to me companies are trying to keep the staff they have which means equipment needs to be fixed and updated."

In her work, Nicholson provides financial education to SPD managers to help them navigate the complex process of yearly budgeting and capital requests in the hospital so they can make their case to leadership on what their department requires in terms of staffing and equipment.

She pointed to the increase in mass shootings in the U.S. and how hospitals presented with multiple victims may not have the instrument sets required to care for all of them, stating:

"Before, if there was a shooting, there were maybe one or two people requiring emergency care but now hospitals are being presented with five or 10 victims all at once. In SPD, we may not have enough instrument trays to support care of these patients or find ourselves having to reallocate trays intended for scheduled surgeries to these trauma cases." HPN

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June 2023
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LEARNING OBJECTIVES

1. *Identify the performance characteristics of a biological indicator.*
2. *Explain how Rapid Readout biological indicators detect sterilization process failures.*
3. *Discuss what a marginal sterilization process is.*
4. *Develop policy and procedures for the appropriate use of biological indicators.*

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Positive biological indicators

by Nikki Kluck, Gale Havrilla, Martha Young

Positive biological indicators (BI) set in motion the recall of all medical devices processed since the last negative BI, an analysis of what caused the failure, correction of those causes, and retesting of the sterilizer before it is put back into routine use.[1] The purpose of the BI is to identify when microorganisms are not killed, which is a sterilization process failure. So, when you get a positive BI the appropriate question to ask is: what changed or was different about this sterilization process that the microorganisms were not killed?

Definition and performance characteristics of biological indicators

The Association for the Advancement of Medical Instrumentation (AAMI) defines a biological indicator as a "device intended for use by a health care provider to accompany products being sterilized through a sterilization procedure and to monitor adequacy of sterilization. The device consists of a known number of microorganisms, of known resistance to the mode of sterilization, in or on a carrier and enclosed in a protective package. Subsequent growth or failure of the microorganisms to grow under suitable conditions indicates the adequacy of sterilization."[1]

A BI consists of a calibrated population of bacterial spores of a high resistance to the mode of sterilization being monitored. For example, Geobacillus stearothermophilus is the most resistant spore for steam sterilization, hydrogen peroxide gas plasma and ozone sterilization. Bacillus atrophaeus is the most resistant spore for ethylene oxide (EO) sterilization. In some BI configurations, spores are coated on a carrier, which is enclosed in a plastic vial containing a crushable glass media ampoule and cap that allows the sterilant to penetrate into the plastic vial, killing the spores and demonstrating whether sterilization conditions were met. This is called a self-contained biological indicator; Figure 1, below, shows the components of an exemplary BI.

The performance characteristics of a BI are defined in the Association for the Advancement of Medical instrumentation (AAMI) standards.[2,3] BI performance is based on spore population, D-value and survival/kill values. See Table 1 (next page) for an example of BI performance data for steam sterilization and Table 2 (next page) for BI performance data for EO sterilization. This data is included in a Quality Assurance Certification that is found in each box of product.

The labeling of a BI will state which sterilization cycle the BI can be used for, which spore is contained on the carrier, and what the population of the spores is. The population is expressed as the mean number of spores per strip and the term colony forming unit (CFU) is used. If the population is listed as 3.7x106 CFU, there are 3,700,000 spores on the carrier. In order to be an appropriate challenge for the sterilization process, the population of spores must not be less than 1x106 CFU for EO sterilization processes and 1x105 CFU for steam sterilization processes.[2,3] A BI with a spore count less than these would not be considered an appropriate challenge.

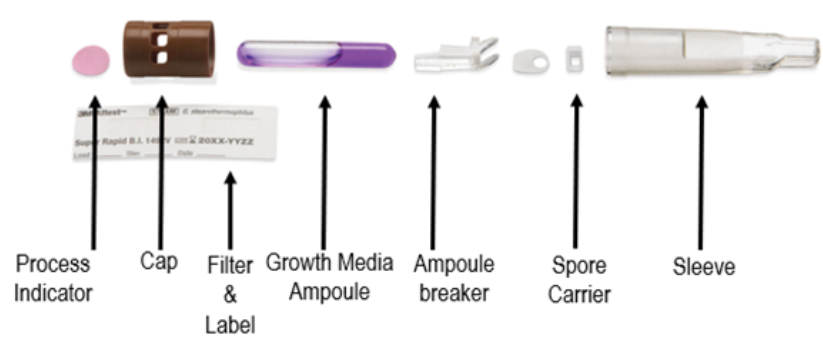

Figure 1. Brealout of biological indicator

Table 1. Biological indicator performance data for stream sterilization processes.	
For use in monitoring the 250°F (121°C), gravity and 270°F (132°C) vacuum assisted steam sterilization process.	
Organism: Geobacillus stearothermophilus ATCC 7953	
Population (mean/strip): 3.7x106 CFU	Determined at time of manufacture. Population is reproducible only under the exact conditions under which it was determined.
Resistance Testing Data	
Test D-value (121°C): 1.6 minutes	Survival/kill is verified and D-value is determined in a BIER vessel using a gravity cycle. D-values are determined by a fraction negative procedure after graded exposures to sterilization conditions. D-value is reproducible only under the exact conditions under which it is determined. User would not necessarily obtain the same results and would need to determine the biological indicators suitability for their particular use.
Survival time (121°C): 7.3 minutes	
Kill time (121°C): 16.9 minutes	

The D-value is defined as the decimal reduction value, which indicates the resistance of the BI. The larger the D value, the more resistant the microorganism is to destruction.1 D-value testing is determined in a biological indicator evaluation resistometer (BIER) test vessel that has a small chamber, no come-up-time or load. For BIs used for steam sterilization, this testing is done at 121°C (250°F). The D-value is the exposure time required to secure inactivation of 90 percent of a population of test organisms under stated conditions. For example, if a BI used for steam sterilization states that the D-value (121°C) is 1.6 minutes, it means 90 percent of the spore population is killed in the first 1.6 minutes of a 121°C steam sterilization cycle. During the next 1.6 minutes, 90 percent of the remaining spore population is killed. By this data, you can tell that all spores do not die at the same time. There is a transition period between all spores surviving and all spores being killed. During this transition period, when some negative and some positive BIs are obtained, the cycle is described as consisting of marginal sterilization conditions.

Biological indicator performance is also defined by survival/kill values. This also relates to the resistance of the biological indicator. The survival time is the time at which all spores in the BI will still be alive. The kill time is the time at which all spores in the BI will be killed. The survival and kill value can be determined by testing in a BIER test vessel or can be calculated based on the spore count and the D-value. BI performance data should be included in each package of product, usually in a Certificate of Analysis.

Evolution of biological indicators

In the 1970s, self-contained BIs first became commercially available. Self-contained BIs had three major advantages over multicomponent BIs. First, they eliminated the need to aseptically transfer the spore strip to a liquid growth media by combining the spore strip (or carrier) and a crushable glass ampoule in the same container. This addressed the common contamination problem of spore strips. Second, the addition of a pH dye, which turned yellow when microbial growth produced acidic by-products, was used to detect positives in place of observing for cloudy media indicating microbial growth. This greatly simplified interpretation of the results and put BI testing in the hands of the sterilization departments rather than the microbiology laboratory. The third advantage is faster read-out times. As refinements in recovery media were developed, they resulted in shorter required incubation times. These advantages have resulted in the elimination of spore strips that require aseptic transfer to media and incubation wherever possible. These advantages, plus labor and time savings, have resulted in the widespread use of self-contained BIs.

The need to verify the efficacy of the sterilization process in a shorter time period has been becoming more important because of the turnover demands on the sterilization department, the complexity of medical devices being introduced, and the need to save time and control costs. These needs drove the development of rapid readout BIs. Rapid readout BIs (indicators with enzyme-based early-readout capability) are identical to the original self-contained BIs with one major exception: The glucose in the media has been removed and replaced by a glucoside (or equivalent glucosidase substrate) with a fluorescent indicator dye attached. Spores that have not been destroyed by a sterilization process and are biologically active are demonstrated in a much shorter period of time because, as soon as the glucoside is broken down, the fluorescent dye becomes detectable in trace amounts. Spores do not need to multiply to release the dye from the glucose substrate. A proper sterilization process will sufficiently destroy cellular components so that microbes are no longer able to grow. Following a proper sterilization process, neither detectable enzymatic activity is present nor is the cell able to grow or multiply. An auto-reader detects the presence of the naturally occurring enzyme, which is an intrinsic component produced by the

Table 2. Biological indicator performance data for ethylene oxide sterilization processes.	
For use in monitoring the ethylene oxide sterilization process.	
Organism: Bacilus atrophaeus ATCC 9372	
Population (mean/strip): 3.9x106 CFU	Determined at time of manufacture. Population is reproducible only under the exact conditions under which it was determined.
Resistance Testing Data	
Test D-value (121°C): 3.4 minutes	Survival/kill is verified and D-value is determined in a BIER vessel at 54°C, 60 percent RH, 600 mg ethylene oxide/liter. D-values are determined by a fraction negative procedure after graded exposures to sterilization conditions. D-value is reproducible only under the exact conditions under which it is determined. User would not necessarily obtain the same results and would need to determine the biological indicators suitability for their particular use.
Survival time (121°C): 15.99 minutes	
Kill time (121°C): 36.99 minutes	

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

spore, by reading a fluorescent product that is produced when this enzyme converts the non-fluorescent substrate in the media vial.[4] The fluorescence indicates the presence of an active enzyme and a sterilization process failure. Non-fluorescence indicates inactivation of the enzyme and an effective sterilization process. A sterilization process failure can be detected in as little as a few minutes, which is an improvement over the one to seven days previously required.[5] Obtaining results within a minimal incubation time allows sterilization process failures to be identified much sooner, instruments to be turned around faster, costs associated with inventory and recall to be reduced, and improved patient outcomes.[6]

When a biological indicator is doing its job

BIs detect conditions that are not able to kill the spores. Since spores are more resistant than other microbes, they provide a safety margin. If the spores have been killed, then by inference, the other microbes on medical devices should have also been killed. Sterilization cycles are designed to kill spores within the first half of the exposure cycle. In a normally functioning cycle, the spores should easily be destroyed. See Figure 2, below, for a graphic representation of spore kill in a typical sterilization process.

At the beginning of the process, all spores are expected to be alive. By the middle of the process all spores should be killed. At some point between these two states, marginal cycle conditions exist. A marginal cycle is one that fails to completely kill all spores, and can yield both positive and negative BI results. In a sterilization process failure (i.e., sterilizer not functioning, inadequate steam quality and quantity, or human errors due to incorrect packaging, loading, or choosing the incorrect cycle for the load) the marginal part of the process may come at the end of the cycle. It is toward the end of these marginal cycle conditions where a more sensitive indicator, such as a fluorescent dye, may detect a few more positives than a less-sensitive indicator, such as a pH dye. Detection of biologically active proteins, such as the intrinsic enzyme in the spore that breaks down the glucoside substrate containing the fluorescent dye, demonstrates a sterilization process failure. Whether the spore is able to multiply or not, the detection of biologically active proteins demonstrates a sterilization failure.

Rapid readout BIs can detect marginal cycle conditions that other spore strips and self-contained BIs do not. Vesley and Allwood concluded in their evaluation of BIs that rapid readout BI technology was a more sensitive indicator of marginal sterilization cycles than other self-contained BIs without any indication of false positive results.[7] Likewise, Rutala et al. reported that rapid readout BIs were a suitable monitor that ensures sterilization without inappropriately indicating failure.[8]

Recommended practices for using biological indicators

A process challenge device (PCD) is a test pack that creates a challenge to the sterilization process that is greater than or equal to a routinely processed item.[9] The AAMI and the Association for the periOperative Registered Nurses (AORN) recommend that a BI in a PCD be run weekly, but preferably every day that the steam sterilizer is used.[1,10] Additionally BIs within PCDs should be used for sterilizer testing after sterilizer installation, relocation, malfunction or process failure, and any major repairs.[1,9] This testing should be done in each type of cycle (gravity-displacement, dynamic air-removal [prevaccum or steam flush pressure pulse]) used. If a sterilizer runs cycles for different exposure times, then the shortest cycle time should be tested.[1] In addition, when using the immediate-use-steam-sterilization (IUSS) sterilization process, each type of tray configuration (e.g., open surgical tray, single-wrapped surgical tray, protective organizing case, rigid sterilization container) in routine use should be tested separately. Each load containing implantable medical devices should be monitored with a PCD containing a BI and a Type 5 integrating chemical indicator, and the implantable device quarantined until the results of the BI testing are available. If a PCD containing only a BI is used to release a sterilized load, it should be quarantined until the BI results are known.[1]

BIs are used for qualification testing by the sterilizer manufacturer at time of installation, and by the healthcare facility for periodic quality assurance testing. BIs are also used for product testing.[1]

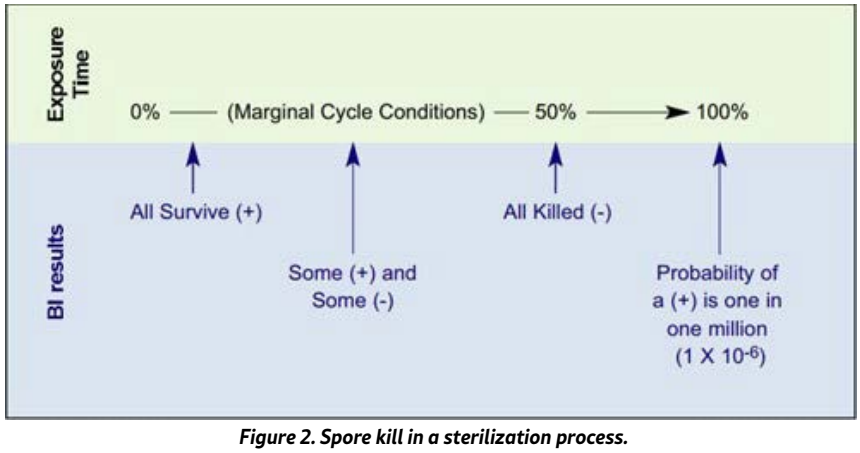

Figure 2. Spore kill in a sterilization process.

Summary

Biological indicators (BIs) provide direct evidence that the sterilization process conditions are able to kill spores. BIs have evolved over the past 50 years. Results that once took seven days or more now are obtained in less than 1 hour, and less than 30 minutes in some cases. Cumbersome subculturing and long incubation times have been replaced by self-contained biological indicators with rapid readout techniques. HPN

References

1. Association for the Advancement of Medical Instrumentation. Comprehensive guide to steam sterilization and sterility assurance in healthcare facilities. ANSI/AAMI ST79: 2017.

2. Association for the Advancement of Medical Instrumentation. Sterilization of health care products – Biological indicators – Part 2: Biological indicators for ethylene oxide sterilization processes. ANSI/AAMI/ISO 11138-02:2017.

3. Association for the Advancement of Medical Instrumentation. Sterilization of health care products – Biological indicators – Part 3: Biological indicators for moist heat sterilization processes. ANSI/AAMI/ISO 11138-03:2017.

4. Schneider PM. Evaluation of a new rapid readout biological indicator for use in 132°C and 135°C vacuum-assisted steam sterilization cycles. *Am J Infect Control*. 2014 Feb;42(2):e17-21.

5. Alfa MJ, Olson N, DeGagne P, Jackson M. Evaluation of rapid readout biological indicators for 132 degrees C gravity and 132 degrees C vacuum-assisted steam sterilization cycles using a new automated fluorescent reader. *Infect Control Hosp Epidemiol*. 2002 Jul;23(7):388-92.

6. Zaman SU, Sadia I, Yasmin N, et al. Application of Rapid Biological Indicators Coupled with Auto-Reader for the Quality Assurance of Surgical Instruments after Sterilization at a Cardiac Hospital in Bangladesh. *Cureus*. 2021 Nov 10;13(11):e19428.

7. Vesley D, Nellis MA, Allwood PB. Evaluation of a Rapid Readout Biological Indicator for 121ºC Gravity and 132ºC Vacuum-Assisted Steam Sterilization Cycles. *Infection Control and Hospital Epidemiology*, Vol. 16, No 5, July:1995.

8. Rutala WA, Jones SM, Weber DJ. Comparison of a rapid readout biological indicator for steam sterilization with four conventional biological indicators and five chemical indicators. *Infect Control Hosp Epidemiol*. 1996 Jul;17(7):423-8.

9. Association for the Advancement of Medical Instrumentation. Process Challenge Devices/Test Packs for Use in Health Care Facilities. AAMI TIR31:2008.

10. Association of periOperative Registered Nurses. Guideline for Sterilization. In: *Guidelines for Perioperative Practice*. 2023.

CONTINUING EDUCATION TEST • JUNE 2023

Positive biological indicators

Circle the one correct answer:

1. **Which of the below statements about biological indicators (BI) is/are true?**
   A. A positive BI result should be investigated to determine the cause.
   B. The purpose of a BI is to identify when microorganisms are not killed.
   C. A BI contains a known number of microorganisms.
   D. All of the above.

2. **Which of the below measures do NOT contribute to the performance characteristics of BIs?**
   A. D-values
   B. Survival and kill values
   C. Cost
   D. Spore population

3. **What does the acronym CFU stand for?**
   A. Conditions for use
   B. Colony forming unit
   C. Critical failure underkill
   D. None of the above

4. **What requirements need to be met for a BI to be an appropriate challenge for the sterilization process?**
   A. Contain microorganisms with a high resistance to the mode of sterilization being monitored
   B. Contain at least 1x106 CFU for ethylene oxide sterilization processes
   C. Contain at least 1x105 CFU for steam sterilization processes
   D. All of the above

5. **A marginal sterilization cycle ___.**
   A. successfully kills all microorganisms
   B. can yield both positive or negative BI results
   C. is never due to human error
   D. All of the above

6. **Sterilization cycles are designed to kill all spores at which point in the cycle?**
   A. 25%
   B. 50%
   C. 90%
   D. 100%

7. **Which of the following factors could contribute to a sterilization process failure?**
   A. Sterilizer malfunction
   B. Inadequate steam quality
   C. Selection of the incorrect cycle for the load
   D. All of the above

8. **Which of the following statements is/are NOT true about rapid readout BIs?**
   A. Rapid readout BIs are less reliable than slow-read BIs.
   B. Rapid readout BIs contain an enzyme substrate attached to a fluorescent indicator dye.
   C. Rapid readout BIs can detect biologically active spores without needing to wait for the spores to multiply.
   D. All of the above

9. **What is the AAMI ST79 and AORM recommended frequency for monitoring steam sterilization cycles with a BI in a process challenge device?**
   A. At least weekly, preferably daily, plus implants
   B. At least monthly, preferably weekly, plus implants
   C. Only after a sterilization process failure
   D. None of the above

10. **Which of the following statements are true about monitoring with BIs?**
    A. BI testing does not need to be done in both gravity-displacement and dynamic air-removal cycles if they are done in the same sterilizer
    B. Loads containing implantable devices should be monitored with a BI and Type 5 chemical indicator, and quarantined until the results of the BI results are available
    C. If a sterilizer runs cycles at multiple different exposure times, then a BI should be tested using the longer cycle time
    D. None of the above

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HSPA VIEWPOINT

Travel advisory: traveling techs changing face of SPD

by David Taylor III, MSN, RN, CNOR

A major disruption in America's labor force happened at the height of the pandemic, with an estimated 50 million workers leaving their jobs. So many workers quit that it has been referred to as the great resignation.1 Whether it was to search for better work-life-balance, greater flexibility, increased compensation, or improved work culture, it certainly left gaps in many industries—including healthcare and Sterile Processing.

Interestingly, corporate profits are at an all-time high, outpacing labor costs and leaving frontline workers' wages waning in comparison.[2] Numerous studies have been published about the shortages of medical professionals (mostly, registered nurses and physicians), but little is being reported on the shortage of allied healthcare professionals. A survey conducted by AMN Healthcare revealed that 85% of the facilities surveyed are experiencing shortages in this category.[3] The Bureau of Labor Statistics has predicted that by 2029 there will be a need for over 70,000 [SP] technicians.[4]

Although SP has made more headlines in recent years due to patient safety risks and even infections associated with improperly processed medical instrumentation, it has been my experience as a healthcare consultant that not enough healthcare organizations are doing what they should to improve the working conditions, environment and culture of their SPDs. Inadequate staffing, outdated equipment, limited device inventories to safely meet procedural demands, cramped workspaces, and pay that isn't commensurate with the difficult roles and duties for which SP technicians are responsible are all-too-common occurrences. The risks are real—not only for those working in the SPD but also for the healthcare customers and patients they serve.

SP leaders nationally are tasked with engaging their workforce while retaining high-quality, skilled and, ideally, certified technicians. On average, SP technicians earn between $16 and $21 per hour, although education level, experience and certifications held can play into the equation.[5] Of course, the state and region where one works also affect pay.[6] In comparison, traveling SP technicians make $62,336 on average nationally, and some salaries top $91,000.[7] As a result of more traveling technicians, many facilities seeking full-time, non-traveling technicians have had to hire inexperienced employees who require focused training, onboarding and mentoring before they can confidently and competently step into the role.

Personally, I have witnessed healthcare organizations being reticent to move salaries above market-wage averages or provide compensation incentives such as retention or hiring bonuses or even modest monetary increases for those who hold certifications. In one instance, I worked for a client organization that lost four tenured SP professionals in a single day because the organization refused to review technicians' compensation and consider increases based on their deep experience, contributions, and commitment to quality and professionalism. Six weeks later, those same employees returned to the facility as traveling technicians—at far higher compensation.

Higher compensation isn't the only lure for traveling technicians. It can also create exciting personal and professional opportunities, allowing employees to see different areas of the country, explore a variety of healthcare settings, experience how other organizations apply best practices, and more. One technician I worked with recently shared how she had never been on an airplane or even traveled out of her home state. Now, having worked three years as a traveling technician, she has experienced five states and seen things she only read about previously. Another experienced, full-time traveling technician and empty-nester sold her home and now says she is saving well for her retirement because she is living comfortably in hotels and has her vehicle and meal costs covered by the hospitals that employ her.

Hospitals must do better

Healthcare organizations should take note of the employment shifts and how a growing lack of interest in full-time, non-traveling, low-compensation healthcare positions can jeopardize patient safety and customer service outcomes. Traveling technicians can certainly be quality contributors to the existing SP team, but they require the same onboarding, training and attention as any other new employee; what they may have done in previous facilities may not align with the existing facility's policies and procedures, or even the latest industry standards.

Likewise, it is essential that traveling SP technicians are viewed as a traditional member of the team, and encouraged to identify any questionable practices that may counter instructions for use, standards, and guidelines. Over time, travelers will have experienced many different departments and, possibly, ways of doing things, so their knowledge and input should be solicited and celebrated just like full-time, non-traveling employees. Above all, every employee—full-time, traveling or otherwise—must be carefully vetted and observed to ensure they are following appropriate policies and practices.

There are times when hiring traveling technicians is a necessary and viable approach to filling staffing gaps, but I advocate for temporary contracts and a greater emphasis on establishing better hiring and retention strategies to attract and keep more full-time, skilled employees. SP technicians play a vital role in patient care, infection prevention, and other positive outcomes. It is time healthcare organizations look closely at the compensation and employment offerings being provided for SP professionals and ensure that the SPD culture and environment meet the needs of today's quality-focused, experienced, and professional SP technicians and leaders. HPN

References:

1. https://www.cnbc.com/2023/02/01/why-2022-was-the-real-year-of-the-great-resignation.html

2. https://www.epi.org/blog/corporate-profits-have-contributed-disproportionately-to-inflation-how-should-policymakers-respond/

3. https://www.amnhealthcare.com/amn-insights/surveys/survey-2021-temporary-allied-staffing-trends/

4. https://www.careerwatch.co/blog/sterile-processing-tech#:~:text=The%20Bureau%20of%20Labor%20Statistics%20predicts%20that%20by%202029%2C%20there,will%20be%20a%2013%2C252%20increase!

5. https://www.salary.com/research/salary/alternate/sterile-supply-processing-technician-hourly-wages

6. https://www.herzing.edu/salary/sterile-processing-technician

7. https://www.ziprecruiter.com/Salaries/Sterile-Processing-Technician-Travel-Salary

SUBMIT YOUR QUESTIONS:
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Marking tape – yay or nay?

by Stephen M. Kovach

Q "We just had a surveyor come and tell us we cannot use marking tape. Have you heard that marking tape cannot be used any more for identifying instruments?"

A To my knowledge, I have not heard or read anything stating that you cannot use marking tape or any other means of identifying surgical instruments. My first response to you is to ask the surveyor to produce some type of evidence that states you cannot use marking tape on your instruments.

Now, they might cite you for not using marking tape properly, and that is a different reason.

Over the years, there have been many methods used to mark surgical instruments. Based on my observations, marking tape has been the most popular followed by a "color-coded dipping method." New and possible better methods are on the horizon.

First, whatever technique is being used to help identify surgical instruments, it should be done according to the Instructions for Use (IFU) of the product you are using. Be sure to consult them before doing any marking.

In general, any method used should not impede the reprocessing of the medical device. In the last few years, medical device reprocessing departments have had more options to mark medical devices to help in traceability or the total instrument sets, and to help ensure that sets are kept together during the reprocessing of those devices.

Let's look at taping and dipping, and then some of the other options medical device reprocessing department have for use.

Pictures of bad taping and dipping.

Photos courtesy Stephen Kovach

Taping and dipping will wear out over time. Staff needs to inspect them each time they touch the instrument and check the integrity of the product according to the IFU. This is part of the inspection of each instrument that should include looking for any worn out tape and replacing it (as well as examining the dipping coating for any cracking/flaking), and sending the instrument out for repair, as necessary.

The color-dipping method is done by the product manufacturer of the surgical instrument or by a third party.

When tape is first applied, it must "cure," [a chemical process to let the tape set and/or be sterilized], and I do not see that happening all the time. I see staff just apply new tape on the instrument and put it back in the set. This means tape not applied properly—or not removed when it should be—may become a potential source of infections.

Thus, instruments should be cleaned first before tape is applied for the first time, then it can be sterilized and put into service. I've witnessed too many times where staff will just remove old tape and apply new tape. This is not correct. When applying instrument tape, the IFU must be followed to get the proper usage and life from the product.

If departments do not want to use taping or dipping, there are other options (e.g., laser/acid etching, color silicone bands, etc.). Departments also must consider the initiative that the United States (U.S.) Food and Drug Administration (FDA) established called the Unique Device Identification (UDI) system to adequately identify medical devices sold in the United States from manufacturers because this process might offer some new techniques able to help that have not been available before. As with any method, each has its advantages and disadvantages, and each department should use their critical thinking skills to determine what method is the best for their needs.

In thinking back to your original comment, this might make sense. Perhaps one or two (or a combination) of different things may have happened at your facility to tip the surveyor off. They might have seen some poorly taped instruments inclining them to comment not to tape your instruments; or maybe they asked if you have a policy on taping and you did not, therefore stating you "… cannot use marking tape."

Regardless of whichever method a department uses to help identify surgical instruments, a department should have a policy in place with its staff efficiently trained in how to follow it.

I remember these two quotes concerning policy and procedures:

"Walk your talk." (You may know this as, "Practice what you preach.")

"If you cannot speak to a policy or procedure, you do not have one to follow."

In closing, the one method that should not be used is engraving. Why? Because it can harm the surface of the medical device, promote corrosion, and (possibly) decrease the passivation layer of the medical device. **HPN**

References:

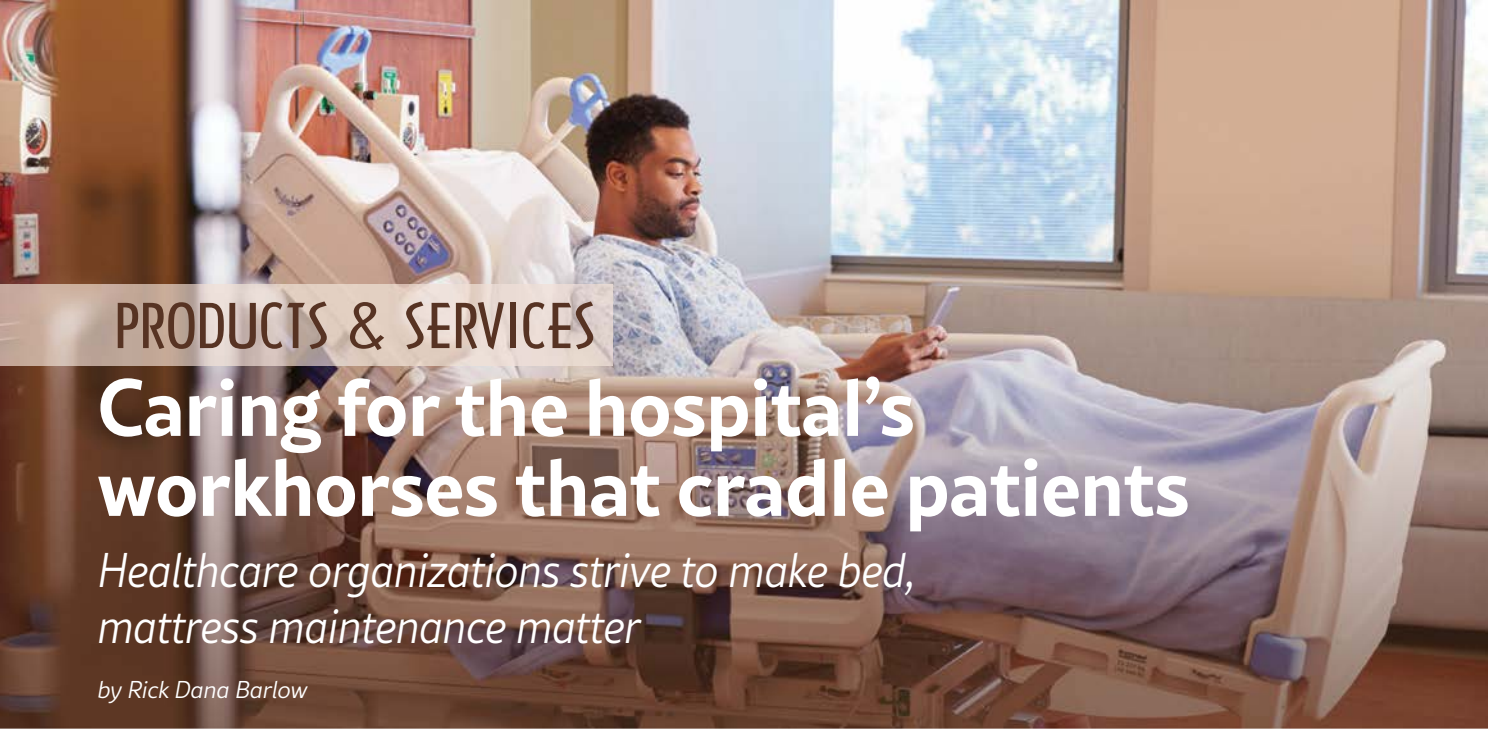
1. Kraayenbrink, M., Baer, S. T., Jenkins, J. G., & Moore-Gillon, V. (1987). Serious hazard of plastic coding tape on surgical instruments. *The British Journal of Surgery*, *74*(8), 696. https://doi.org/10.1002/bjs.1800740815.

2. Ipaktchi, K., Kolnik, A., & Messina, M. (2013). Current surgical instrument labeling techniques may increase the risk of unintentionally retained foreign objects: a hypothesis. *Patient Saf Surg*, 7(31), 2. https://doi.org/10.1186/1754-9493-7-31.

3. Kostyal, D. A., Verhage, J. M., Beezhold, D. H., & Beck, W. C. (1993). Flash sterilization and instrument tape--an experimental study: *Journal of healthcare materiel management*, Oct;11(9), 34-5. PMID: 10129224. https://pubmed.ncbi.nlm.nih.gov/10129224/.

4. AAMI (2020). ANSI/AAMI ST79: 2017 Comprehensive guide to steam sterilization and sterility assurance in healthcare facilities *(7.4.1 - General considerations for all devices and utensils, 40)*, Amendment A.2 (2020). Arlington, VA: Association for the Advancement of Medical Instrumentation.

5. Samit, A., Dodson, R. (1983). Instrument-marking Tapes: An Unnecessary Hazard. *J Oral Maxillofacial Surg*, Oct;41, 687-88. https://doi.org/10.1016/0278-2391(83)90029-0.



PRODUCTS & SERVICES

Caring for the hospital's workhorses that cradle patients

Healthcare organizations strive to make bed, mattress maintenance matter

by Rick Dana Barlow

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Ask the famous physiological trivia question, "What is the largest body organ?" and people likely may respond with the intestines or the lungs, completely missing the obvious answer: Skin. Same can be said for asking people what they think is perhaps the most important product (device, equipment, etc.) within a healthcare facility. Responses may veer toward surgical robotics, computed tomography (CT) scanners or magnetic resonance imaging (MRI) units, completely missing the obvious answer: Beds.

After all, where do inpatients – whether in critical care, surgery or patient rooms – spend the most time?

Iwain Lam, president and CEO, Surface Medical Inc., calls hospital beds and mattresses "the workhorse of every healthcare organization," because "they are in constant use. They are also one of the highest touch points in the patient environment."

Iwain Lam

Steady, extensive use, of course, can lead to excessive wear-and-tear and breed infectious microorganisms – viral and bacterial – if the beds and their mattresses are not routinely and completely cleaned, decontaminated and disinfected or sterilized. Over time, beds and their mattresses will need to be replaced via recycling or even disposal if they're too far gone to be repurposed in some way.

Because patients spend so much time in beds and on mattresses it stands to reason that healthcare organizations should have comprehensive maintenance, repair and replacement procedures for one of their most integral products.

Unfortunately, carrying out effective bed and mattress maintenance protocols is not necessarily the case for everyone. The obvious question is why? There's a lot resting on that product.

Not so fast

Simple timing represents one of the principal impediments to thorough and proper maintenance, according to bed and mattress company executives.

"As with many things in delivering care, time impacts surface inspections," said Andrew Aitken, director, Product Management and Marketing, Linet Americas. "Housekeeping staff have a set amount of time to terminally clean the room. Typically, there is not enough time to inspect the mattress."

Andrew Aitken

High census rates mean few to no vacancies in patient rooms, according to a Stryker spokesperson who released an official statement to *Healthcare Purchasing News*.

"When a room does become available, hospital staff must clean, disinfect and change-out that entire room as quickly as possible in preparation for the next patient," the Stryker spokesperson stated. "Beds and mattresses are often focal points for cleaning and disinfection, and there can be challenges because of their size and weight. Cleaning products can require up to three minutes, in most cases, to properly disinfect and sanitize a surface, including Stryker's beds and mattresses. Ensuring that wet mattresses are not put back onto a bed frame, which can lead to rusting and/or premature breakdown of components, is critical to realizing full useful life."

Census contributes to infrequent access to beds and mattresses as well, according to Stryker's spokesperson.

"When a problem arises on a bed or mattress, or an annual preventive maintenance inspection is due, the bed must be temporarily taken out of service," the spokesperson stated. "If the hospital facility does not have extra beds available to swap out, an entire room can potentially be unavailable until all required work is complete."

David Willoughby, vice president, Marketing & Business Development, Medtrica Solutions Ltd., highlights an underlying list of challenges that complicate effective bed and mattress maintenance.

David Willoughby

"Some of the most prevalent are rushing protocols due to time constraints, lack of correct training and education, lack of communication, staff turnover and at times use of inferior products or not following [manufacturer instructions for use] due to their complexity," Willoughby told *HPN*. "Out of these contributors, I would say that time constraint and inconsistent protocol implementation resulting from lack of correct training and education are key contributors."

Linet Americas' Aitken also acknowledges education as a factor.

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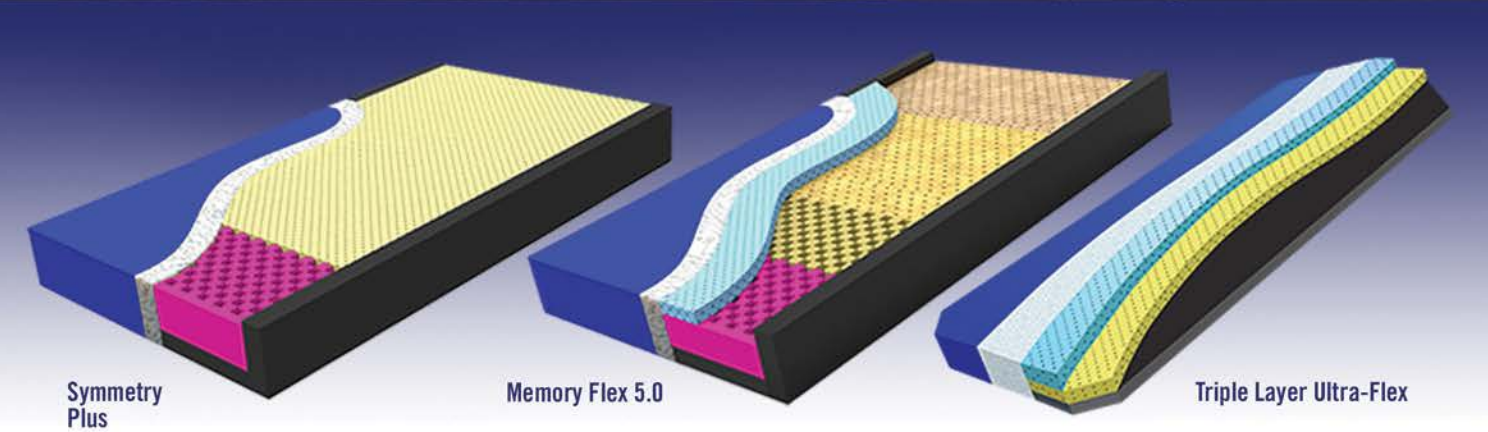

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"In most areas of the hospital, turnover is an issue, and staff need to be trained to inspect mattresses properly," he advised. "This education also extends to the management level, who needs to understand not only the cost avoidance that can be achieved by utilizing a robust inspection program, but also the impact of improper cleaning on the spread of infection in the hospital and health of patients."

Solid mattress covers can extend the product's life but even those can be damaged by other cleaning and clinical products, according to Surface Medical's Lam.

"Because they are in constant use, hospital mattress covers are frequently damaged by sharp objects and by the caustic cleaning agents used during routine disinfection and terminal cleaning," he noted. "If they are not properly maintained, hospital mattresses can become reservoirs of deadly pathogens, leading to the possible spread of hospital-associated infections (HAIs) to patients and staff."

Consequently, Lam emphasizes the need for routine awareness of mattress cover intactness for infection prevention as tantamount to any maintenance program.

"A mattress is usually concealed by bed linens, so damage tends to escape notice by hospital staff until it is cleaned between patients," he indicated. "This scenario is problematic, however, because staff may not want to risk removing a much-needed mattress from service while a replacement mattress is sourced. Sadly, this means minor damage such as rips or punctures are often overlooked until they become too big to ignore, but even a small puncture can allow pathogens to enter the mattress core and render the equipment 'uncleanable,' putting patients and staff at risk of contracting an HAI. The US FDA has received hundreds of reports of patients that have [been attributed to] a damaged mattress soaked with blood or other bodily fluids."

Healthcare organizations should not limit bed and mattress maintenance to those products alone, but should extend their efforts to bed linens and what patients wear while lying on them, according to Samlane Ketevong, senior director, Certification, Textile Rental Services Association of America (TRSA), which supports companies that supply, launder and maintain linens and uniforms.

Samlane Ketevong

"Patients' contact with gowns and bed linens make it imperative that every healthcare facility properly handle and maintain the cleanliness of these healthcare textiles," she urged. "Research shows that environmental contamination can lead to infectious disease outbreaks in hospitals, and therefore, every surface these linens encounter must be carefully inspected."

TRSA members launder an estimated 90 percent of North American hospital linen volume, and many follow the standards of the association's "Hygienically Clean Healthcare" certification, which is verified by independent third-party inspections and microbial testing, according to Ketevong.

"Pathogens can exist on surfaces for hours or even months, making safe handling procedures critical from transportation to storage and distribution, ensuring [healthcare textiles] remain as clean as when they were laundered," she cautioned. "Linens should remain covered and a physical separation of clean and soiled [healthcare textiles] should always be maintained. Clean [healthcare textiles] must be properly stored, ideally in a designated clean holding room, away from all possible contaminants, on organized and labeled shelves. Upon distribution, healthcare staff need to be mindful of keeping the [healthcare textiles] away from potentially contaminated surfaces and uniforms."

Stryker encourages "proper and regular maintenance" of beds and mattresses to optimize performance, even if such oversight must be conducted by an external third party service provider, including the original equipment manufacturer (OEM).

"It is rare to have an experienced and dedicated bed repair technician in a hospital's BioMed department, and thus beds and mattresses are often low on the priority list," the Stryker spokesperson stated. "This is especially true because of the criticality of the other equipment needing attention or if spare beds are available. Therefore, partnering with an OEM repair service allows for regular maintenance inspections and is like having an in-house expert bed technician at your request."

It's so easy

Bed and mattress company executives recognize how easy it can be to miss or neglect proper and thorough maintenance of these products.

"When a visual inspection fails to detect micro damage, when cover permeability testing or support surface evaluation are not conducted when needed, or when ineffective manual cleaning occurs at time of termination any failure of these processes is still, unfortunately, a reflection of how underappreciated these risks pose to not to only patients and staff but to visitors as well," lamented Medtrica's Willoughby.

Aitken from Linet Americas zeroes in on the mindset of taking something for granted.

"Mattresses have the out-of-sight, out-of-mind issue," he noted. "They are almost always hidden from view by the sheets and are not considered a medical device that needs proper maintenance and inspection."

But he also singles out the number and variation of staff involved.

"Multiple departments seem responsible for the mattress," he observed. "Housekeeping for cleaning and disinfection, nursing staff for its clinical suitability and biomedical for its control in the case of an active surface. Historically there is often little to no coordination between these groups regarding mattress maintenance."

The Stryker spokesperson points to the "lower criticality of this specific equipment and overall availability for internal teams to fix the products.

"The inability to gain access to the beds and mattresses can also lead to missing proper maintenance," the spokesperson continued. "Communication with floor staff, such as Nursing, [Environmental Services] and Transport team members is key to success in this area."

Surface Medical's Lam warns against overlooking the importance of intact treatment surfaces for patient safety.

"Without routine inspection protocols in place, a nurse or environmental services staff might not identify infection risks such as fluid ingress due to a minor puncture," he said. "It is important for a hospital to proactively look for and address damage to ensure patient surfaces are intact and cleanable, rather than waiting until the damage is too big to ignore or fluid ingress has already occurred."

TRSA's Ketevong expresses concern about a healthcare organization's internal procedures and standards for preserving clean linen once delivered from a TRSA-certified supplier, homing in on guidelines from The Centers for Disease Control and Epidemiology (CDC) that she says may be "very limited and not clearly defined."

She cites CDC guidelines as stating, "'hygienic and common-sense storage and processing of clean textiles is recommended,' With room for interpretation, this could mean something different for every facility or individual. Instead, having clear and concise rules and regulations would limit the margin of error and guarantee the safe storage and handling of clean [healthcare textiles]," she added.

Elevating priorities

Bed and mattress company executives concur that hospitals and other healthcare facilities must make product maintenance a higher priority across the board, which hinges on and stems from increased education.

Surface Medical's Lam pinpoints three priorities: "Educating staff on the importance of intact treatment surfaces to HAI

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reduction, implementing a routine mattress inspection program and training staff to repair or replace a mattress when damage is identified.

"Most damage is repairable if it is identified early," Lam continued, "so a proactive approach will allow hospitals to minimize the risks posed by compromised mattresses while reducing the budget required for equipment replacement. It will also help reduce citations from accreditation services such as The Joint Commission and increase the capacity of healthcare organizations to treat patients and, concomitantly, reduce revenue lost from removing beds from service while waiting for new equipment to arrive."

Adhering to proper and thorough protocols "can allow for more satisfied end users, higher functionality of the products and less product downtime, which can lead to a better patient experience," stated the Stryker spokesperson who also emphasized keeping diligent cleaning and maintenance records as required for accreditation.

Healthcare organizations certainly can implement their own detailed procedures, but they could start with OEM recommendations, according to Linet Americas' Aitken.

"Each manufacturer has tested and developed a program to clean and inspect mattresses," he said. "The financial impact [includes] details on how much the facility is spending on replacement mattresses, hospital-acquired Infections and hospital-acquired pressure Injuries – all of which are related to the condition of the mattress."

TRSA's Ketevong recommends keeping vigilant on textile protocols and standards, too, and think about sustainability practices.

"TRSA has estimated that healthcare facilities lose roughly $840 million each year primarily from items lost or discarded as waste when they could have been washed and reused," she noted. "Studies, such as one conducted by the University of Michigan Health System, have found that units that follow a clear bed-changing policy generate less waste on average compared to units without such a policy.

"Establishing comprehensive [healthcare textile] storage and distribution practices will not only reduce the spread of infection and promote a culture of safety in healthcare settings, but it also can reduce costs by diminishing the expense of lost linen products," she continued. "Healthcare providers may also wish to consider the balance of reusable linens versus disposable products in their bed and mattress maintenance planning. TRSA recommends maintaining an inventory of 50% reusable linens as a hedge against surges in demand, supply chain issues or other unanticipated disruptions that might prevent them from receiving regular shipments. By maintaining a 50% reusable stockpile, hospitals and clinics ensure continued availability of hygienic linens."

All told, however, Aitken urges healthcare organizations to embrace a new approach and attitude about beds and mattresses.

"Begin treating the mattress as a medical device in the hospital," he insisted. "The complexity and technology inside mattresses have been steadily evolving, and many in the hospital still see it as simply a thing under the patient." HPN

Suggested additional references:

1. Best Practices for Cleansing, Disinfecting, and Care of Polyurethane Support Surface National Pressure Injury Advisory Panel. https://cdn.ymaws.com/npiap.com/resource/resmgr/s3i/S3i_NPIAP_Cleansing_Disinfec.pdf

2. Disinfecting hospital beds and mattresses: A time for change https://www.ajicjournal.org/article/S0196-6553(21)00511-3/fulltext

3. United States Food and Drug Administration Hospital Beds – Covers for Hospital Bed Mattresses: Learn How to Keep Them Safe. https://www.fda.gov/MedicalDevices/ProductsandMedicalProcedures/GeneralHospitalDevicesandSupplies/HospitalBeds/ucm585737.htm

4. Meyer J., Nippak P., Cumming A., An evaluation of cleaning practices at a teaching hospital. *Am J Infect Control.* 2021; 49: 40-43

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VALUE. DELIVERED.

Resilience requires collaborative leadership

by Karen Conway, Vice President, Healthcare Value, GHX

On May 11, the Public Health Emergency (PHE) ended in the United States, and with it, a return to the more restrictive regulations in place before the pandemic. The question now is, "Will we also return to the pre-pandemic supply chain practices that many believe made the U.S. healthcare system more vulnerable to significant supply shortages?"

There is little dispute that an overemphasis on lowering supply chain costs created the conditions in which the healthcare system could not meet the substantial increases in demand for certain products, e.g., personal protection equipment (PPE). A disproportionate reliance on products produced overseas also made the U.S. healthcare system more vulnerable.

Deloitte queried more than 400 healthcare clinical, service line, and supply chain leaders if they were prepared for the next disruption, and the response was a resounding no; they expect more supply chain failures the next time there is a pandemic or other major emergency.[1]

The problem, according to Deloitte and healthcare supply chain scholars, is that healthcare leaders lack the commitment to make the systemic changes necessary to support resilience. For Arizona State University professor Eugene Schneller, PhD, this is also a board governance issue, adding that collaborative leadership is needed to support community and individual system preparedness.

During the pandemic, many healthcare systems – some even mandated by state governments – stockpiled massive amounts of PPE. Today, those stockpiles have led to fewer orders for those products as health systems use up existing stock, threatening the viability of new domestic PPE manufacturers that require a steady pipeline of business.

Deloitte also notes that supply shortages were not always a matter of not having enough stock. Sometimes it was a lack of visibility as to where the stock is located in order to shift it to meet local demand. This is a topic we discussed in the December 2021 issue of Value.Delivered, (https://hpnonline.com/21247071) demonstrating how the use of standard identifiers, such as unique device identifiers (UDIs), could have helped healthcare systems adjust supply levels at various facilities and even support the ability of the Strategic National Stockpile (SNS) to deliver supplies to where they were needed most.

At the height of the pandemic, health systems understandably sought to acquire as much product as possible, although unbridled competition led to massive price hikes. Going forward, both Deloitte and Dr. Schneller have recommendations to avoid the mistakes of the past and ensure the U.S. healthcare system can deliver the supplies needed to support the nation's health and wellbeing.

Deloitte recommends creating digital supply networks, including the use of control towers and inventory management solutions, cautioning that data quality and standardization are also needed to address the visibility issues discussed earlier.

Even the right technology is not enough without the support of executive leadership, the buy-in among those who must implement the technological and process changes, and strong inter-organizational relationships across the supply network. Dr. Schneller goes further, suggesting that the resilience of individual provider organizations demands a sense of shared community risk, even among the fiercest of competitors.

During the pandemic, he noted how supply chain and clinical leaders from competing systems came together to share data on both patient volume and supply availability, at times transferring both to ensure an effective allocation of resources. This collaboration was tolerated by the C-suite but has waned with the passing of the pandemic. That, he says, is a mistake.

What leaders fail to recognize, says Dr. Schneller, are the system-level interdependencies within communities. When leaders come together to understand their shared risks, they can most effectively determine how best to implement and finance appropriate response mechanisms. In his words, "Preparedness for the next 'big one' is a community affair," noting how the financial constraints faced by most health systems today make it impossible for a single organization to achieve resilience on its own.

Instead, he and his colleagues Mikaella Polyviou and Jim Eckler propose what they call a Common Pool Resource Organization (CPRO). A CPRO can be virtual, with each organization managing its own resources but with a high level of transparency across the participants, or it can be physical, in which resources are managed and distributed by the CPRO on behalf of the participants. In such cases, stock can be effectively rotated to prevent products from expiring or becoming unusable due to lack of regular maintenance, an issue that plagued the SNS in the early days of the pandemic.

A CPRO also requires a commitment by the boards of the participating organizations to provide necessary financing for maintaining "just in case" stock levels, but in a manner that also supports their ongoing supply needs. There are plenty of details to work out, such as ensuring advance agreement on clinically equivalent products should stock normally used by one organization need to be distributed to another. But these are matters that can best be handled by clinical and supply chain professionals, but only if they have the edict and support of their leadership at the highest levels. HPN

References:

1. Health care supply chain resilience | Deloitte Insights; https://www2.deloitte.com/us/en/insights/industry/health-care/healthcare-supply-chain.html

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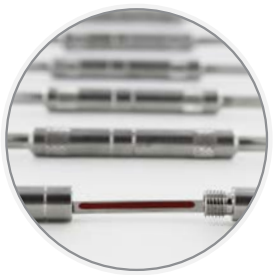

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