Why You Should Standardize with Exergen TA Thermometers

Exergen’s Value Proposition:

• Improve Patient Outcomes - Exergen has MORE THAN 50 PUBLISHED STUDIES SUPPORTING ACCURACY FROM PREEMIES TO GERIATRICS IN ALL AREAS OF CARE. Unlike other thermometers, the Exergen Temporal Scanner does not come into contact with mucous membranes, thus greatly reducing the risk of cross contamination. Additionally, full instrument sheaths, protecting the entire thermometer, can be utilized for all levels of cross-contamination protection.

• Improve Patient Safety - Exergen has no probe covers that can break, as often occurs with oral thermometers. With a lifetime warranty, your thermometers can be replaced whenever necessary at no charge. Exergen also has less environmental issues than other thermometer methods, increasing reliability of readings.

• Reduce Costs - Exergen doesn’t require expensive probe covers, and with a LIFETIME WARRANTY, COST SAVINGS OF UP TO 90% OVER OTHER THERMOMETRY METHODS can be achieved. Other thermometers can cost more than $100 per year each for probe covers and repairs. Exergen TA thermometers cost $0 per year.

• Increase Efficiencies - Exergen’s non-invasive temperature collection can be utilized on virtually any patient situation, therefore ONE THERMOMETER CAN BE UTILIZED THROUGHOUT THE FACILITY. Also, Exergen upgraded the thermometer casing to reduce or eliminate stress micro cracks that can allow harsh chemical cleaners to penetrate the material and cause fractures.

• Attractive Payback - Elimination of probe covers and repair costs, and easily affordable acquisition costs results in LESS THAN ONE YEAR PAYBACK for standardizing with Exergen TA thermometers.

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Green cash flow
Manufacturer financing for immediate cash flow boost.
By FRANCESCO POMPEI

How does manufacturer-financed new technology increase immediate cash flow for cash-short hospitals?

Francesco Pompei. First, a new technology must cost less and deliver improved patient care. In the current climate, unless both criteria are met, a new technology may not be a good deal for the hospital, or for the patient. Second, out-of-pocket cost of acquisition of the new technology must be lower than what it replaces on day one. This means that effective new technology must be financed in some way to allow the hospital to gain its benefits immediately, even if there is no readily available cash or financing. The best ready source of this financing may be the manufacturer, who even in the toughest of times always has the lowest financing costs of anyone in the supply chain. This is because its cost of producing any product is always the lowest in the supply chain.

An example of this is temporal artery (TA) thermometry, a new technology that both improves patient care and substantially reduces costs. Patient care improvement results from the increased speed and accuracy of measurement, with the inherent patient appeal of a gentle forehead scan. This replaces other methods, which are slower and less accurate, and require an unwelcome probe insertion into a body cavity. The scan of the forehead, like the use of a stethoscope, lightly touches skin with no mucous membranes and requires no disposable – simple cleaning between patients is adequate. Since disposables account for about 90 percent of thermometry costs, this saving is very substantial.

How does the manufacturer financing work?

FP. The hospital conducts its evaluations, purchase and acquisition in the normal manner, but the payment method is a monthly credit card charge by the manufacturer. No complexity of leases, compliancy or contracts. The hospital owns the instruments and pays on an installment basis financed by the manufacturer. For TA thermometers, this charge is less than $15/month per thermometer for 24 months for most GPO pricing. A typical cost for disposables alone for other types of thermometers is about $21/month, thus immediately improving cash flow by $6/month per thermometer. A further cash flow improvement is from elimination of probe replacement and repair charges, which typically are about $100/yr per thermometer. This brings the total immediate cash flow gain to approximately $14/month per thermometer. After the thermometers are paid for, the total cash flow improvement is then 100 percent of the previous cost, or $29/month per thermometer. For a hospital with 500 thermometers, over five years this adds up to nearly a million dollars of free cash flow.

What makes this green?

FP. Elimination of waste – particularly non-biodegradable plastics used in thermometer probe covers. One medium-sized hospital estimated that it eliminated 2.2 tons of waste per year due to thermometer probe covers when converting to TA thermometry. Other thermometers are easily broken due to their design requirement for a probe insertion into a body cavity. Because TA thermometers are entirely non-invasive instruments, they can be designed to be nearly indestructible. This allows the manufacturer to offer a lifetime warranty, eliminating the cost and associated waste for replacing thermometer probes as well as disposables.

Why would a manufacturer provide this type of financing?

FP. If the manufacturer has the financial strength to offer this service to its hospital customers, then it is an excellent use of resources to help improve the financial health of its customers, which ultimately results in increased sales for the manufacturer. In addition, the manufacturer, together with its hospital customers, makes a significant improvement in care for our patients and care for our planet.
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Mr. & Mrs. Supply Chain

Amid the cultural chatter about what defines and constitutes “traditional” marriage, one business media outlet explored the institution in a creative way.

Bloomberg Business tapped into the data stream from the U.S. Census Bureau’s 2014 American Community Survey, which polled 3.5 million households, to see the type of professionals other professionals wed.

In the business of match-making, who did the career-minded in selected professions seem to attract? Were they similar in category or management level? Or were they part of the so-called “opposite attract” romanticism, highlighted by polarizing pundits James Carville (that liberal Democratic icon) and Mary Matalin (that conservative Republican idealist) who periodically speak at healthcare conferences, particularly during presidential election seasons?

The answers may surprise you. Or not.

Bloomberg promoted its clever story, which injected some life into what an esoteric slice-of-life project by a federal bureaucracy, as a chart that showed “who marries CEOs, doctors, chefs and janitors.” And the interactive chart it developed for online exploration is downright cool. You can play with it here: http://www.bloomberg.com/graphics/2016-who-marries-whom/?cmpid=BB0D21116_BIZ.

There were some yawn-inducing revelations. For example, the “most common” pairing involved grade-school teachers marrying each other. Cue the chirping crickets. Meanwhile, high-earning women, such as doctors and lawyers, tended to attract their economic equivalents. No surprise there.

Yet the data also showed that middle- and lower-earning women “often marry up.” Bloomberg’s reporting duo who penned the story about the survey—a man and a woman, no less—inserted the following keen analysis sure to tickle your cockles: “In other words, female CEOs tend to marry other CEOs; male CEOs are OK marrying their secretaries.” NOW we’re getting somewhere. Of course, cynics will snort their surprise that male CEOs actually marry their secretaries. Maybe it’s a second marriage. You get the drift. Moving along now.

Curiously, survey data showed that female dancers seem to prefer male welders, but also lawyers, judges, CEOs and legislators. Male firefighters most often marry female nurses, while female nurses seem to prefer truck drivers, managers and retail supervisors. Hmm.

Explosive workers tend to pick elementary and middle school teachers, secretaries and administrative assistants, registered nurses, cashiers, maids and housekeeping cleaners, librarians and hairdressers, hairstylists and cosmetologists.

Not surprisingly, physicians and surgeons tend to pair up with nurse anesthetists and registered nurses, but also retail salespersons and secretaries and administrative assistants.

Covering the healthcare supply chain industry for a quarter-century now as a journalist, writer and editor, naturally I wondered who might pair up with healthcare purchasing news’ heritage readership?

Their decision? Mildly surprising but chock full of common sense. Most refreshing, however, is that Bloomberg included a supply chain at all and didn’t short-shrift this important and valuable profession like so many other education and media outlets do.

Okay, technically they listed “purchasing managers,” which remains acceptable outside of healthcare but fell out of fashion in healthcare at least two decades ago if you remember however, is that Bloomberg included a supply chain entry at all and didn’t short-shrift this technology managers as suitable suitors for supply chain folks. Meanwhile, high-earning women, such as doctors and lawyers, tended to attract their economic equivalents. No surprise there.

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NEWswire

AORN pilots simulation learning tool for perioperative nurses

The Association of periOperative Registered Nurses (AORN) has added PeriopSim, a new simulated learning module, to Periop 101 in a six-month pilot program that will evaluate whether simulation learning is effective as an additional educational approach.

By using simulation learning activities in perioperative practice, nurse users, who are new or returning to the profession, can demonstrate their skills before entering the operating room. Periop 101 is an online education program based on the evidence-based Guidelines for Perioperative Practice.

PeriopSim has been developed in close collaboration with medical experts including surgeons, nurses and nurse educators to ensure accuracy and realistic learning outcomes. The product has recently been tested in academic research with neurosurgical residents learning how to perform Burr Hole brain surgery at the annual Canadian Neurosurgery Rookie Camp and with perioperative nurses in the ‘100 Nurses’ academic research study in Halifax, Nova Scotia.

Joint Commission accredits largest federal provider of occupational health services

The Joint Commission announced it has awarded Ambulatory Care Accreditation to Federal Occupational Health (FOH), the largest provider of occupational health services in the federal government.

The Joint Commission’s accreditation for occupational/worksite health services aims to help ambulatory organizations improve treatment for work-related injuries and illness, work-related preventive medicine and injury, illness-prevention services, OSHA, and departmentally mandated medical surveillance programs. The Joint Commission is a member of the National Association of Worksite Health Centers.

FOH is a component of the Program Support Center (PSC) within the U.S. Department of Health and Human Services. FOH works in partnership with agencies to design and deliver comprehensive occupational health solutions exclusively to federal employees. Today, FOH serves nearly 400 federal agencies and provides occupational health services to 1.8 million federal employees.

Fast Stats

1 IN 6
central line-associated bloodstream infections (CLABSIs) are caused by urgent or serious antibiotic-resistant threats.

1 IN 10
catheter-associated urinary tract infections (CAUTIs) are caused by urgent or serious antibiotic-resistant threats.

9 IN 10
patients diagnosed with C. difficile are related to healthcare.

50% was the decrease in CLABSI cases between 2001 and 2014.

17% was the decrease in surgical site infections (SSI) between 2008 and 2014 (related to 10 procedures tracked in previous HAI progress reports).

48% of Staphylococcus aureus isolates were methicillin resistant in 2014.

30% of enterococci were vancomycin-resistant.

18% of Enterobacteriaceae were extended-spectrum beta-lactamase phenotype.

4% of Enterobacteriaceae were carbapenem resistant.


FDA recommends healthcare facilities transition from Custom Ultrasonics AERs

The FDA is revising its November 2015 Safety Communication to provide updated information about its communications with Custom Ultrasonics regarding its Recall Order.

On November 12, 2015, in accordance with a Consent Decree entered in January 2007 with Custom Ultrasonics (Consent Decree), FDA ordered Custom Ultrasonics to recall, at its expense, all of its Automated Endoscope Reprocessors (AERs). On November 24, 2015, Custom Ultrasonics submitted a recall strategy to the FDA, which the Agency found inadequate. Custom Ultrasonics has to date made no additional proposals to FDA to recall its AERs.

On January 29, 2016, the FDA sent a letter to Custom Ultrasonics reinforcing the terms of the Recall Order and requiring Custom Ultrasonics to remove its AERs from the market. The FDA further notified Custom Ultrasonics that it could take additional measures under the Consent Decree should Custom Ultrasonics fail to initiate or diligently implement the recall or take other required actions.

Because Custom Ultrasonics has not demonstrated that its AERs can adequately wash and disinfect endoscopes to mitigate the risk of patient infection, the Agency continues to recommend that healthcare facilities using Custom Ultrasonics AERs transition to alternative methods to reprocess flexible endoscopes as soon as possible. Facilities are advised to:

• Identify and transition to alternate methods to reprocess flexible endoscopes, such as manual high-level disinfection, liquid chemical sterilization, alternative AERs, or other cleaning and sterilization methods according to the endoscope manufacturers’ reprocessing instructions.

• Before transitioning to an alternative method, be sure that the endoscopes your facility uses are compatible with the alternative method by referring to the endoscope manufacturer’s reprocessing instructions.

The recall is at www.fda.gov/MedicalDevices/Safety/AlertsandNotices/ucm472462.htm?

CDC’s top 10 Zika response planning tips

Currently, outbreaks are occurring in many countries and territories. To date, Zika has not been spread by mosquitoes in the continental United States, but travel-associated cases have been reported. CDC continues to evaluate cases of Zika transmission in the
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NEWswire


Local, state, and territorial responses to Zika cases or an outbreak will differ in jurisdictions where Aedes species mosquitoes (Ae. aegypti and Ae. albopictus) are endemic, and, therefore, local mosquito populations could become infected with Zika virus. All locations will likely have travel-associated cases, and there is priority need for laboratory testing capabilities, enhanced epidemiology, and surveillance systems, and support for pregnant women and families with a child born with microcephaly or other birth defects linked to Zika virus infection. Following are resources CDC has developed to help state, local, and territorial health officials prepare for potential Zika virus cases.

1. Vector control and surveillance: To target vector control programs in priority areas/at-risk populations to suppress Zika virus transmission if local cases or an outbreak is detected:
   - Establish a communication network with vector control/surveillance partners.
   - Educate communities on how to protect themselves using personal protection and primary mosquito prevention methods.
   - Provide vector guidance and vector control services to pregnant women in high-risk areas.

2. Public health surveillance and epidemiological investigation: The goal is to ensure adequate diagnosis and reporting of Zika virus cases; to monitor epidemiologic trends in distribution, transmission, and severity; to direct prevention and control efforts; and to identify cases that require follow up or intervention:
   - Determine if systems and procedures are in place to identify potential or confirmed Zika cases:
     - through symptomatic infections
     - in pregnant women
     - associated with reproductive or congenital outcomes, including microcephaly
     - associated with Guillain-Barré syndrome
     - associated with blood transfusions
     - associated with sexual transmission
   - Ensure investigating officials and clinicians have the latest case definitions developed with the assistance of the Council of State and Territorial Epidemiologists.
   - Ensure clinicians are aware that, as an arboviral disease, Zika is a nationally notifiable condition in the National Notifiable Disease Surveillance System.

3. Laboratory testing and support services: To ensure state and territorial health departments have the support needed to adequately test specimens from suspect Zika cases.
   - Determine which laboratories in the jurisdiction are capable of conducting molecular (RT-PCR) tests or IgM antibody ELISA for Zika virus infection.
   - Assess routine and surge capacity of laboratories to aid in setting priorities for specimen testing.
   - Communicate with healthcare providers about how to submit specimens through the state health department.
   - Establish a point of contact for healthcare providers who have questions regarding testing services and the interpretation of results of tests for Zika virus infection.

4. Prevention of sexually transmitted Zika virus infections: To reduce the risk of sexually transmitted Zika virus by providing guidance to the public regarding the risks and to clinicians so they may counsel their patients. Educate the public and clinicians so they are aware of the risks of sexual transmission of the Zika virus so that the public, especially pregnant women, follow guidelines to prevent transmission and further spread of the virus.

5. Prevention of blood transfusion–transmitted Zika virus infections: To reduce the risk of transfusion-transmitted Zika virus during a local or more widespread outbreak in areas with active transmission. Coordinate with local and state epidemiology and surveillance partners to identify the support needed to investigate Zika virus infections suspected to be associated with blood products or transfusions in collaboration with local blood centers and transfusing healthcare facilities.
   - Identify local blood centers within endemic areas to ensure that blood products collected are tested for the Zika virus, subjected to pathogen-reduction technology, or come from sources where Zika infection is not present.

6. Maternal and child health surveillance and response: To prevent Zika virus infection during pregnancy, monitor pregnant women with suspected or confirmed Zika virus infection, and follow up to track adverse pregnancy and infant outcomes.
   - Incorporate information from this system into other systems that monitor pregnant women and infants/children.
   - Work with CDC to engage in U.S. pregnancy registry.
   - Ensure training and educational materials from CDC are appropriately augmented with information on state/territorial requirements and distributed to healthcare providers.

7. Rapid birth defects monitoring and follow-up: To ensure rapid detection of microcephaly, other major birth defects, and other disabilities that might be associated with Zika virus infection and to plan for adequate services for these children and their families.
   - For those states/territories with a state birth defects surveillance program, ensure healthcare providers have information regarding reporting requirements and infrastructure.
   - Ensure training and educational materials from CDC are appropriately augmented with state/territorial requirements and distributed to pediatric providers so that they can evaluate infants with possible congenital Zika virus infection.

8. Travel health news:
   - To ensure travelers to areas with locally transmitted Zika virus receive appropriate information regarding risks and protection measures. Disseminate travel notices designed to inform travelers and clinicians about the risks for contracting Zika infection related to specific destinations and provide prevention recommendations.

9. Clinician outreach and communication:
   - To inform healthcare providers on the risks, recognition, diagnosis, reporting, clinical management, outcomes, and prevention of Zika virus infections. Review updates to Zika material, including clinical care guidelines, and augment the material to meet the needs/regulations within the jurisdiction.
   - Identify the most appropriate and functional channels to share information with healthcare providers (e.g., Health Alert Network, webinars).

10. Risk communication/community education:
    - To inform the public about Zika virus and related birth defects or illnesses, especially microcephaly and other harmful effects to pregnant women and their fetuses. Develop communication messages, products, and programs with key partners and stakeholders to harmonize response for people traveling to or living in areas of higher risk of Zika transmission.
Franciscan Missionaries of Our Lady Health System recognized that financial sustainability was — and would continue to be — a significant focus. It turned to Bill Mosser, Vice President of Materials Management. Mosser proposed a multi-year plan for his health system to transform its supply chain into a much leaner, more streamlined organization, but time was not on his side.

“We couldn’t recreate the wheel ourselves, and we certainly didn’t have the time to try. We had to partner with someone who already had and who shared our values. My first phone call was to ROi.”

BILL MOSSER, Vice President, Materials Management  
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**SPECIAL FOCUS**

**Asset, patient tracking technology jockeys for bottom-line position**

by Rick Dana Barlow

Track and trace represents a simple concept, really.

You track where something is and where it’s going; you trace where it’s been. This is how you close the loop electronically between the past, present and future of a patient along a clinical pathway or a product in the supply chain.

While that may be simple in concept and theory, it can be a bit more complex in design and practice.

Due largely to the myriad technological options from which healthcare organizations can choose, tracking and tracing patients and products has morphed into as much an art form as it is a science.

While bar coding in healthcare has been around since the mid-1970s, radiofrequency identification (RFID) represents more of a 21st century phenomenon with real-time location systems (RTLS), including RFID as one of several different “modalities” in its quiver, such as infrared, ultraviolet, ZigBee, and others that have emerged as well.

At the turn of the millennium, when facing all three options first movers tended to gravitate toward the latest and greatest at the expense of their predecessor technologies. Pragmatists retained what they knew worked based on their experience and waited for more proof to advance. Progressives implemented upgrades as needed based on making the most of what they already used before using efficiency and economic justification to move to the next one up. Realists, however, figured out a way to apply and utilize all three to varying degrees, pursuing a more holistic approach that allowed for specialization.

“Anything beyond early adopters and one-off type science experiments really requires a strong plan to be successful, especially at an enterprise scale,” said Conrad Emmerich, Vice President, Operations, Wake Forest Baptist Medical Center. “What we’ve experienced is that through focus and committing to an enterprise-wide program, we’ve been able to achieve the type of success with RTLS technologies that weren’t even considered five years ago. This is largely due to the fact that we subscribed to solid methodologies to increase the opportunity for success and invested in people who knew how to make it all work together.

“The technologies themselves have advanced to the point where the reliability and accuracy is sufficient to support advanced use cases — where the value is — and the prices work within the business model,” he continued. “All three of the specified technologies play a role in the solutions we deploy, and we believe that they will continue to do so. Projects are moving far beyond the basics and we are seeing exponential value from a hospital perspective.”

Whatever philosophy they embrace, healthcare organizations’ interest remains steady for bar coding and relatively hot for RFID and RTLS. As such, technological advancements and applications remaining just ahead of that curve, observers told Healthcare Purchasing News.

**Full speed ahead**

Makers of track-and-trace technologies report considerable growth in adoption and implementation since 2010, nearly coinciding with healthcare reform’s deployment that includes electronic health record provisions.

In fact, Gary Wittbrodt, Director, Product Management, Versus Technology, cited various reports showing RTLS growth estimated at around 35 percent for the next five years.

“Adoption and implementation rates are definitely increasing,” Wittbrodt indicated. “Early adopters have had tremendous success and return on investment with the technology, and this is causing others to take notice. Additionally, we’ve seen adoption move from just a location and tracking tool to using RTLS as a business intelligence tool. By applying sophisticated workflow rules to location data, RTLS can help improve workflows not only for assets, but also for patient flow in the ED, OR, outpatient clinics and hospital-wide.”

And he’s not alone in witnessing the functional expansion of traditional track-and-trace tech.

“With the technological improvements in speed and accuracy of location services, we have seen a tremendous shift in the healthcare industry from using RTLS for simple asset tracking to much more advanced use cases, such as patient locating and workflow automation,” said Ari Naim, President and CEO, Centrak Inc. “Five years ago, the market was not quite ready for high performance technology. Estimated location, using a single RF technology (i.e., Wi-Fi only), was sufficient for basic asset tracking. However, with the advancements of a clinical-grade locating infrastructure, the industry has realized the true value in patient tracking and using their RTLS technology to integrate information into other enterprise systems and automate operational workflows. From tagging a few pieces of equipment, to true enterprise-wide implementations across entire hospital networks, gaining insights into the location, movement and interaction of hospital patients, staff, and equipment has been proven to increase workflow efficiencies, reduce costs, protect critical assets and increase clinical quality.” (See graphic, below.)

In a bit of irony, Shane Waslaski, President and CEO, Intelligent InSites, linked increasing facility interest to decreasing device and technology size.

“In the past five years we have seen sensory technology and devices get smaller, faster,
Smarter and far less expensive, which has triggered rapidly growing adoption in health systems,” Waslaski noted. “The result is a vast amount of automatically generated location data that a growing number of healthcare leaders are leveraging to streamline processes, improve patient and staff experience, and reduce costs.”

Waslaski highlighted two notable organizations that declared location-based operational tools something they “must have” vs. “nice to have.” One is the Department of Veterans Affairs’ 2013 investment in RTLS across 152 medical centers and seven consolidated outpatient pharmacies. The second is Hospital Corporation of America’s recent enterprise license agreement with Intelligent InSites for several RTLS-based products across its more than 160 facilities nationwide.

Tom O’Boyle, Director of RFID, Barcoding Inc., acknowledged that education and experience has inspired more of a multidisciplinary approach to track-and-trace technologies, contributing to tremendous growth in bar coding, RFID and RTLS.

“Users’ understanding of the benefits and limitations of each technology has allowed for system designers to deploy multiple, and sometimes all three, technologies within the same system,” O’Boyle said. “RFID and RTLS have a tremendous benefit of allowing a system to read many items — assets or patients — at one time. Bar coding is still the preferred method to [locate] an asset or a patient and verify a manual operation. So deploying bar codes in certain instances, like medication dispensing, makes very good sense.”

O’Boyle further noted that facilities tend to deploy and use active RFID tags to locate the position of an asset or patient with a facility using triangulation, but even that technology is changing. “Using Wi-Fi-based tags is expensive and the infrastructure burden is high,” he said. “Newer active tags using Low Energy Bluetooth (BLE) technology will over time become the dominant technology in the space. BLE tags and readers are lower cost, follow an accepted standard and have tremendously long battery life. On top of that, every smartphone or tablet being manufactured has a built-in reader allowing for more handheld-based applications.”

O’Boyle foresees continued evolution with Passive RFID for automatically updating inventories of assets. “As a technology, its low-cost benefits will allow many suppliers to tag and build in readers into supply cabinets,” he said. “We are seeing advancements on the surgical kits, drug supply for LOT tracking, and normal patient consumables. The costs of the label tags have been consistently coming down over the past five years. We see some costs below 10 cents now for some tags at high volumes. That cost will continue to fall with the push to have the RFID antennas printed on the labels. This reduced the label manufacturing costs and allows for custom antennas to quickly be designed and deployed.”

Looking forward
Ask track-and-trace tech experts on what asset and patient tracking systems really can achieve if properly applied and smoothly operational and you’ll likely notice them all hovering around higher quality care, improved patient outcomes and lower costs long-term. But what does all of that really mean and how do these nebulous terms apply?

“With an enterprise-wide installation of certainty-based RTLS, healthcare facilities are able to implement workflow automation, automated nurse call cancellation, staff duress assistance, infant protection, wander management, infection control/contact tracing, among many others,” GmTrak’s Naim listed. “By automating processes and making them more effective and efficient, the caregiver is able to spend more time at the bedside with their patient and less time being burdened by data entry, searching for equipment and other manual procedures.”

Further, Naim attributes innovative technologies spearheading the creation of the “ultimate experience” for patients who will receive higher quality care as “the standard.”

“With lower costs, minimal wait times, efficient care, and reduced risk of infection, the stress patients feel when going to the hospital will be greatly reduced,” he added.

When it comes to safety and satisfaction, Intelligent InSites’ Waslaski concurs. “In healthcare, all efforts and investments are geared toward improving patient experiences and outcomes, and that certainly holds true for the use of asset and patient tracking technology,” he noted. Operational efficiency is one key area. For example, giving staff real-time visibility to the location and status of mobile medical equipment empowers them, according to Waslaski. Nurses spend less time searching for equipment, which gives them more time at the bedside. Biomedical technicians save steps and avoid waiting by seeing when equipment is available for pickup versus in use with patients. Supply Chain staff save countless hours by simply waving a wand in storage areas to complete inventory counts, or print a report to show the current location of recalled equipment.

Analyzing the actual utilization of tagged equipment allows Purchasing to avoid redundant purchases and paying rental fees for equipment that isn’t being used, he continued. Real-time PAR level dashboards automate equipment replenishment with notifications and tasks being triggered when equipment counts drop below pre-set minimums. “This means the equipment is just there — with no running around searching or making phone calls to...

Sterile Processing,” he noted. “Bar codes can be attached to folders containing patient discharge instructions so that timestamps are collected when they pass through unit exit doors, enabling length-of-stay metrics that don’t require manual data entry.”

Waslaski pinpointed the common element in all of these examples as the use of “pervasively available technology that removes steps, guesswork, redundant data entry, and reliance on busy caregivers to interrupt time with patients to write things down or make phone calls.”

Patient safety represents another key area.

“Healthcare facilities are busy and sometimes chaotic environments where caregivers rush between patients while working to maintain compliance with dozens of procedural and diagnostic regulations,” Waslaski noted. “Advances in research and predictive modeling help caregivers guard against misdiagnoses or harmful drug interactions.”

But Waslaski contended that “far too much reliance is placed on individual human intervention to ensure that basic safety standards are consistently met.” These include ensuring patients stay within designated care areas or are seen within an hour of receiving pain medication. Using RTLS, staff can receive notifications when patients pass through designated doorways or aren’t within proximity of a caregiver within an hour of ingesting pain medication, he indicated. Immediately after learning of a patient with an infectious disease being in a healthcare facility, a Safety Officer can print a proximity report showing all of the people and equipment that patient came in contact with so that further spread of infection can be contained and affected individuals can receive appropriate preventative care. Knowing which staff was in a patient room and for how long helps Unit Directors and Nurse Managers understand sequences of events leading to patient falls or abrupt changes in heart rate so they can adjust processes accordingly.

An RTLS-enhanced patient experience also may improve HCAHPS scores, which affect reimbursement, as more satisfied patients spend more time with physicians and less time waiting in overcrowded waiting areas or alone in exam rooms, according to Waslaski.

Minding economics
Facilities need a low-cost RTLS technology that acts as a business tool, providing optics and analytics to help reduce operating costs by clearly pointing out waste and inefficiencies that may be suspected but not able to be “tangibly quantified” without the technology, insisted Albert Larose, Executive Vice President, Secure Care.

“The cost of RTLS is a major variable enabling this business tool to be justifiable, since the saving must be justified...

Albert Larose
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If You Are an Acute Care Provider and Purchased Distribution Services from Cardinal Health 200, LLC or Owens & Minor Distribution, Inc. Since December 18, 2008, You Could Be Affected by a Proposed Class Action Settlement.

What is this about?
Subject to Court approval, two settlements totaling $2.4 million have been reached in a class action lawsuit called Schuylkill Health System, et al. v. Cardinal Health 200, LLC, et al. pending in the United States District Court for the Eastern District of Pennsylvania. The lawsuit claims that Cardinal Health 200, LLC (“Cardinal Health”) and Owens & Minor Distribution, Inc. (“Owens & Minor”) (collectively, “Defendants”) engaged in certain business practices that illegally excluded competitors from the marketplace through the use of exclusionary bundled contracts, resulting in artificially high prices for the distribution of suture and/or endomechanical products.

Cardinal Health and Owens & Minor deny that they did anything wrong or that they have engaged in any business practice that illegally excluded competitors or resulted in artificially high prices. The Court has not decided who is right.

Who is a Settlement Class Member?
The Settlement Class includes all acute care providers in the United States and its territories that purchased sutures and/or endomechanical product distribution services from Cardinal Health and/or Owens & Minor or any of their parents, divisions, subsidiaries, predecessors, or affiliates during the period from December 18, 2008 through August 20, 2015 (the “Class Period”). Excluded from the Settlement Class are federal government entities, Defendants, and Defendants’ parents, divisions, subsidiaries, predecessors, and affiliates.

What are the benefits?
Owens & Minor has agreed to pay $1.25 million to settle the lawsuit and Cardinal Health has agreed to pay $1.15 million to settle the lawsuit, for a combined $2.4 million (the “Fund”). If approved by the Court, the Fund will be distributed to class members, after deduction of attorneys’ fees up to $360,000, litigation expenses up to $1.3 million, and incentive awards up to $25,000 each to the three named class representatives.

What are my rights?
File a claim – this is the only way to get a payment from the settlements. Detailed instructions on how to file a claim form are available on the settlement website. Do nothing - if you do nothing, you will be bound by the decisions of the Court and will not be able to sue Cardinal Health and/or Owens & Minor for any claims in the lawsuit or any claims related to the claims in the lawsuit. Exclude yourself - if you exclude yourself, you cannot object to the Settlement or request for expenses, but you can pursue a lawsuit against Cardinal Health and/or Owens & Minor on your own. The exclusion postmarked deadline is May 16, 2016. Object - write a letter with your objections to the Court, so that it is received by May 16, 2016. Complete details of your rights and how to file a claim or exclude yourself are found on www.sutureandendosettlement.com.

The Court has scheduled a hearing on June 14, 2016, at 9:00 a.m., at the James A. Byrne United States Courthouse, 601 Market Street, Courtroom 11A, Philadelphia, PA 19106, to determine the fairness of the Settlement and request for fees, expenses, and incentive awards. The motion for fees, expenses, and incentive awards will be filed by May 2, 2016 and posted on the website below. The motion for final approval of the settlements will be filed by May 31, 2016 and posted on the website below. You or your own attorney may appear at the Hearing, but you don’t have to.

This is only a summary. You can get a copy of the settlement agreement or a detailed notice by visiting www.sutureandendosettlement.com. You may also call the settlement administrator toll-free at 1-(877) 900-9196. You may also write to: Suture and Endo Settlement Administrator, PO Box 2400, Faribault, MN 55021-9100.

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When starting a renovation project, a mix of different department leaders and end-users will want to collaborate closely on design and implementation. It’s also likely that some of those departments may be joining forces for the first time. Who do you invite to the table, at what stage do they need to be included, and why? Are there any pitfalls to avoid? We asked industry experts these questions. Here’s their advice:

“The entire team should be included from day one: Administration, Project Manager, OR Management, Facilities/Eng Management, OR Nurse Manager, Nurse, Surgeons, and Infection Prevention. Much can be taken from basic principles of Kaizen or continuous improvement from lean manufacturing. The project should begin with all levels of team members reviewing the current state of the OR, followed by brainstorming activities to identify opportunities for improvement. These ideas will build the future state plan and determine the project scope. One pitfall to avoid is setting the budget before the scope is established. The team needs to be allowed to explore the project and present recommendations without a fixed ceiling.” — Tom Crenshaw, Principal, mPHD llc

“The most commonly involved people include the OR manager, the surgeons who are clinical champions for specific needs and products, chiefs of clinical specialties who provide input as to how the room should be set up for their procedures and a biomedical representative. External stakeholders often include the equipment planner, an architect and a representative from the vendor company who will be supplying the technology. Not commonly included, for smoother collaboration, a facility considering an OR upgrade should include all end-user stakeholders, too — including nurses or scrub techs that interact with these rooms on a daily basis. They can help identify potential pitfalls at the onset of a project and offer solutions before it’s too late. Project management representatives also can be very helpful for keeping the project on task, on budget and on time.” — Jake Isley, Sr. Product Manager, Systems Integration, Olympus America Inc.

“I’d like to tell you there’s some magic formula for success, but there isn’t — the more the team agrees on a shared view of success, the more likely the project will go smoothly. If there are influential individuals that have not bought into the project, it can make the process more contentious. One other discipline that is often overlooked early-on is IT. People often think of integration like a surgical ceiling.” — Pete Renzi, Chief Technology Officer, Image Stream Medical Inc.

Integrated, hybrid, smart. Those are the buzz words used to describe today’s most cutting edge operating rooms (ORs). As minimally invasive surgery and interventional procedures continue to emerge the surgical suite is evolving also with innovative features to support the clinicians performing them. To attract and retain the best surgeons and remain competitive today, facility leaders are increasingly cognizant of the value and necessity of renovating existing ORs and/or building brand new ones from the ground up.

“For an OR to reach its full potential — to best support positive surgical outcomes, to allow its teams to be efficient and precise, and to be most profitable — the OR needs to be integrated,” said Phil Kennedy, Vice President, Global Marketing, STERIS. “Smart ORs help create smart surgical teams, allowing them to make more-informed decisions in less time.”

State-of-the art tables, boom, lights, imaging equipment, HD surgical displays, audio and video integration are the typical staples inside the modern OR. According to market research released this year, almost 23 percent of all ORs in the U.S. were integrated in 2013 and by 2019 that figure is expected to reach 31 percent.

**Taking the big step**

Yet many still grapple with the question of whether or not they are ready or even able to invest millions of dollars into such a project or if it’s even worth it.

“This is a question that we have considered a great deal over the past few years,” said Keith Evans, Director of Marketing, Stryker. “Our customers have generally understood and supported the idea that a fully integrated surgical space would lead to higher staff and surgeon satisfaction, more efficient procedures, and safer conditions. However, over the past few years, amidst a changing reimbursement landscape, increased scrutiny around capital expenditures, and improvement in transparency around equipment pricing and performance in the market, customers have expressed an urgent need for empirical evidence that supports the value associated with the integrated OR.”

Stryker conducted third-party research on more than 100 customers and what they learned was that facilities that had the fully integrated solution were cutting procedure turnover time by 11 minutes, reducing OR trip hazards by more than 90 percent, and saw a 2 percent improvement in first case on-time starts.

“Stryker actually provides this research to our customers, and uses an interactive return on investment tool to empower the customer to select their room integration options and to understand the potential benefit associated with this investment,” Evans said. “Stryker offers a wide variety of integration options, ranging from simple integration leveraging our wireless technology, to a fully integrated design inclusive of equipment rooms and surgical lights, device/audio/video/EMR communication, and design consultation to optimize the layout.”

Pete Renzi, Chief Technology Officer at Image Stream Medical Inc. adds that upgrading the OR with integrative technology can also generate a sizable increase in operating profit and, in some cases, such an investment can yield a positive ROI in as little as two years. “With the potential to generate more than $100,000 a day in revenue from a room, that’s a pretty fast break-even point,” said Renzi.

Patrick McCullough and Jake Isley, Senior Product Managers at Olympus America Inc. (Imaging and Systems Integration respectively), say hospitals need to be extremely clear about what its current challenges and capabilities are and how the OR will need to function down the road.

“With increasing hospital consolidations, the need for greater flexibility in the OR is growing, which is where OR integration comes into play. OR and workflow configur-
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OPERATING ROOM

Operating room plays a major role in patient safety during pre-op and intra-op and post-op care,” McCullough said. “Additionally, determine whether the hospital can adequately facilitate the number of procedures and patient cases the surgeons are bringing with them to the facility,” added Isley. “OR scheduling and utilization are big factors, especially in regards to flexibility — is the OR a multi-disciplinary surgical suite capable of handling different procedure types? Dedicated suites are not as efficient — or effective — when only select procedures can be performed in an OR and a patient is in immediate need.”

Determining needs, finding solutions
Building separate ORs devoted to specific surgical disciplines can be prohibitive for many facilities, particularly if utilization rates don’t support the cost. But designing a room that can accommodate numerous surgeons from various disciplines, a growing trend according to Sudhir Kulkarni, Segment Director, Hybrid OR, Siemens Healthcare, can make a renovation project not only more affordable but practical.

“In a place like Cleveland Clinic, they have two rooms dedicated to cardiothoracic surgery, two dedicated to vascular surgery, but they have the workload,” Kulkarni said. “Not all institutions will have the workload. Rather than having a dedicated OR or a dedicated interventional room, if you make this into a universal room so to speak, anybody could use it and, with the current emphasis on utilization and bundled payments, get a good return on investment. We’re seeing more and more interest in doing it this way.”

Clearly, OR renovation of any type doesn’t come cheap but some aspects of the build can be had a little cheaper than one might think, according to Paul White, President and Founder, CV Medical. He says rather than go with a traditional OR renovation which can entail complicated, heavy-duty construction and several years to complete, CV Medical offers an OR installation package for those desiring a fast, turnkey solution.

“Our company was born of an observation from a friend who was the perioperative director of a local hospital,” explained White. “While leading a renovation and new construction process that took over five years from project inception, she observed ‘why can’t I just order a prepackaged system, instead of signing up for a construction project?’ CV Medical designs and manufacturers NuBOOM and NuCART, which are turnkey systems, provide high definition visualization and improved ergonomics while reducing clutter inside the OR.”

White says the NuBOOM, anchored to the floor and installed in just two days, allows for the suspension of surgical lights and radiation shields. That means no ceiling reinforcement requirements, less disruption and lost utilization of the OR, a savings that he says will offset the total cost of the system. Also, instead of installing a traditional ceiling boom, CV Medical’s NuCART can be rolled in and out of rooms while still providing the ergonomic and visual qualities of a ceiling boom.

“After hundreds of systems have been deployed world-wide, it is heartwarming for me to hear surgeons explain how improved ergonomics have enhanced their quality of life,” White reflected. “As an entrepreneur, I also strongly identify with the business constraints faced by hospital management. Now more than ever, a simplified approach, an appliance if you will, that emphasizes utility and cost-effectiveness should be considered instead of major capital expenditures.”

The mPHD Room System — a modular, stainless steel wall system — is another innovative alternative to traditional construction that delivers space optimization, has infection prevention features, and provides immediate and future flexibility to accommodate changing needs and new technology.

“Trying to design for future flexibility is really an exercise in futility: You can put in extra mounts, power and data capability but after that time and expense in extra infrastructure there’s no guarantee that you will be able to accommodate the next innovative technology or change in procedure,” asserted Tom Crenshaw, Principal, mPHD LLC. “That’s where mPHD’s Modular, Stainless Steel Room System comes in. It provides a flexible platform — replacing traditional drywall construction with a modular system that makes every panel an access panel. New technologies can be integrated into your room as they become available without the exhaustive cost, time or room shutdowns previously related to implementing new solutions.

“Changes are made in most cases overnight, with no room shutdown; stainless steel panels are simply removed, recessed, flush-mounted equipment is repositioned or replaced; power; gas and data is repositioned and the wall panels are replaced,” continued Crenshaw. “Changes that are made in days or weeks with traditional construction are made in hours with the mPHD system. Equipment can be recessed and flush-mounted into the mPHD Wall System providing optimal use of valuable OR space and creating a more modern, aesthetically designed room. The mPHD room design is easily cleaned thanks to the flush mounting of doors, windows and typical wall mounted accessories. By eliminating horizontal ledges, the mPHD Room System now becomes a key component of the hospital’s infection prevention protocol.”

Kulkarni says choosing the right patient table is also important, particularly when flexibility is a concern. “Do you need the table to be breakable or like a normal surgical table? The [Siemens] tabletop can be flat which can be used by the interventionist or whoever doesn’t need any positioning of the table. Or it can be a surgical tabletop which can bend to do this, that and the other. It allows you to image in any position of the breakable table.”
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Siemens’ mobile C-arms and state-of-the-art toolkit/software programs are also making surgical procedures remarkably precise and efficient. One facility was able to reduce scoliosis surgery by four hours, endovascular aortic repair (EVAR) procedures are now 30 minutes shorter, and orthopedic surgeries are successful the first time around. When straightening the spine, for example, instead of installing screws manually Kulkarni said, “Our system stores the images with the angulations. You say ‘I want to go here,’ press the button, and boom, it takes you right where you want to be. There are people who said when they started using our system their redo [rate] was zero. No revision surgery.”

**Improved imaging, better communication**

Pretty soon, McCullough says big screen surgery, made possible with 4K surgical equipment and other workflow enhancements, will be a must-have component in the OR. “The most pressing need that will drive an operating room integration upgrade is the market shift from HD to 4K. Just like the market transitioned from SD to HD, the market will follow suit with 4K Ultra-High Definition,” he said. “Due to the major increase in bandwidth and the new wiring standards, 90 percent of integrated operating rooms will require some form of renovation. The Visera 4K UHD provides four times more information than conventional Full HD imaging systems, allowing surgeons to observe fine patterns and structures in high precision. The wide angle of view and magnified image capabilities provide the most complete field of view. It ultimately transforms the operating suite into an immersive experience with the patient at the center. Additionally, with Olympus’ integration portfolio, healthcare professionals can seamlessly capture clinical images and data to route back to EMR systems.”

Collaborating with others outside the room, in real-time, is another must-have feature to consider. “This would involve securely streaming video content as well as two-way video conferences,” explained Renzi. “After the procedure is over, clinicians can share surgical imagery and videos for teaching, family consults, and case preparation either via a centralized content management system or through the hospital’s EHR.”

Isley notes that today’s ORs can also be designed to address staff and patient safety issues. “With the introduction of patient lifts on booms, such as the ones Olympus will be distributing in partnership with Amico, bariatric patients will be moved more easily in the OR, with less risk to the patient and the attending nurses and physicians who were previously involved in this lift process,” he said.

**Real-time data**

Hospitals looking to implement technology that will integrate information from multiple sources both inside and outside of the OR may find a solution with LiveData PeriOp Manager. Jeff Robbins, Founder, President, CEO, LiveData Inc., says the system provides seamless surgical workflow automation by gathering data from the EMR, anesthesia record keeper (ARK) as well as physiological devices to help better coordinate and manage patient care start to finish.

“The program tracks and provides operational visibility into each step of care and captures a structured record of detailed, real-time data from automated workflow, integrated documentation, and surgical cases,” said Robbins. “Times for room setup, anesthesia ready, surgical safety time-outs, surgery start to end, and turnover are captured. LiveData PeriOp Manager Analytics, the analysis and reporting module of PeriOp Manager, turns the EMR, ARK, device, and workflow data into a visual display of actionable intelligence that OR administrators use to improve patient care, efficiency, and OR utilization. Hospitals using LiveData PeriOp Manager Analytics have increased first case on-time starts, improved compliance with surgical safety checklists, increased surgical case volume without an increase in overtime or staffing, and enhanced patient and staff satisfaction.”

**Eye on the future**

The bottom line, says Kennedy from STERIS, is that in order to maximize a renovation investment, today’s surgical suites must be flexible and future-ready. “STERIS integration solutions’ vendor-neutral and scalable system architecture is designed to support a wide range and growing number of imaging devices, at higher resolutions,” he said. “Additional functionality can also be added when needed, allowing the institution to grow the system at its own pace.”

Evans agrees and said, “Tighter integration with third party devices and systems is inevitable. Integration is not just about tightly woven interoperability between Stryker devices, but is also about seamless connectivity to third party devices and systems that will coexist with our products.”

Renzi (Image Stream Medical) suggests also that the optimal OR should be able to anticipate the clinician’s needs. “Any integration system will manually control room lights, displays, and music volume,” he said. “But a truly smart system understands that during pre-procedure time-out everyone in the room needs to be focused on the same thing, and will raise room lights, mute the music, and display the time-out protocol on every display in the room – all automatically.”

In a similar vein Evans says a fully-integrated room will give the end user complete control and command of the room without any cognitive burden. “In the future, automation, predictive modeling, and improved real-time decision support are the kinds of benefits that an integrator will be expected to provide.”

**References:**

2. Research on file with Siemens.
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INFECTION PREVENTION

When more equals less

Teamwork optimizes reduction in rates of hospital-onset infection

by Susan Cantrell, ELS

Whoever first said that two heads are better than one knew what they were talking about. Putting our heads together, bouncing ideas off each other, sharing resources, collaboration, teamwork is the way to accomplish more than we could do on our own. Teamwork is a theme among these infection-prevention success stories. Working together toward a common goal, primarily patient safety, can be accomplished more effectively if departments work as a team.

Some of these stories tell of infection numbers reduced astounding. Some of the stories’ reduction numbers are small. These are no less of a success, because each number represents a human. Even small numbers have a big impact on human lives. Smaller numbers mean less suffering and possibly lives that were saved. Those who make it their mission to reduce infection deserve a round of applause, at the very least.

Here are their stories.

St. Barnabas Hospital
Bronx, NY

St. Barnabas Hospital (SBH) is a 461-bed, not-for-profit, nonsectarian, acute-care teaching hospital and level-I trauma center. The hospital serves a diverse patient population and has more than 500,000 outpatient visits annually.

**How they did it:** “St. Barnabas Hospital’s *Clostridium difficile* hospital-onset rates were higher than the New York state [NYS] data,” explained Lillian Burns, MT, MPH, CIC, Director of Infection Control and Epidemiology. “In 2013, the number of *C. difficile* cases was 85, with a rate of 7.64 (NYS) versus 15.4 (SBH). In 2014, the number of cases was 65, with a rate of 7.24 (NYS) versus 12.8 (SBH).

“*C. difficile* prevention efforts began in earnest in early 2015 and are still being incorporated into daily infection-prevention protocols,” said Burns. “Prevention efforts included immediate testing of patients with diarrhea, patient isolation, and environmental services (EVS) training and education on the correct cleaning and disinfection protocol. Bleach was used for cleaning *C. difficile* rooms. We tested the effectiveness of cleaning and provided feedback on compliance and any identified problems.”

Burns worked closely with EVS and SBH’s leadership team to implement a change in cleaning and disinfecting practices for *C. difficile*. Burns suggested switching to Clorox Healthcare Bleach Germicidal Wipes because she had implemented a similar protocol at her previous place of employment to eliminate a norovirus outbreak and an increase in *C. difficile* cases successfully. “One of these changes involved adopting Clorox Healthcare Bleach Germicidal Wipes for disinfecting all isolation, *C. difficile*, and norovirus patient rooms. To help remind staff about the proper contact time for the bleach wipes, a representative from Clorox Healthcare assisted nursing education and the Infection Control Department with training-materials development. As part of this effort, 175 instructional signs were created and distributed throughout the facility to aid with compliance of the cleaning protocol. “We now use Clorox Healthcare Bleach Germicidal Wipes throughout SBH for *C. difficile* patients. In *C. difficile* rooms, the EVS team focuses...”
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on disinfecting high-touch surfaces, even when the rooms are still occupied.”

Burns credited teamwork as being an important part of their success. “Fostering interdepartmental communication between infection prevention, EVS, nursing, medicine, critical care, surgery, infectious disease, the lab, and pharmacy was critical to the success of this intervention. Besides implementing the new cleaning and disinfecting protocols, team participants also needed to understand the impact that C. difficile can have on patients and families, length of hospitalization, and cost to the hospital.”

Burns also talked about the challenges of change. “The biggest challenge we encountered was making sure all the different departments were committed to the goal of eliminating C. difficile. Implementing a horizontal approach meant that infection-prevention efforts involved everything from antibiotic stewardship, patient surveillance, and specimen collection to improved cleaning and disinfection practices. The daily isolation list, lab reports, and monthly C. difficile subcommittee meetings helped us to provide feedback, monitor compliance, and improve communication among the various departments.”

“We established a C. difficile subcommittee to review monthly data and investigate possible causes for hospital-onset C. difficile and number of infections,” continued Burns. “We engaged in patient surveillance to track and test patient fecal specimens as quickly as possible, to determine whether it was hospital- or community-acquired.”

**Results:** “The C. difficile rate dropped by 49 percent, from 65 to 33. The median cost associated with hospital-onset C. difficile was $20,804. Estimated SBH cost avoidance was $686,532 (33 cases x $20,804). So far, year to date for 2016 (January–February), there have only been two hospital-onset C. difficile cases.”

_Southwestern Vermont Medical Center_  
Bennington, VT

Southwestern Vermont Medical Center is a rural facility with fewer than 100 beds, serving Bennington County, Vermont, and neighboring New York state and Massachusetts.

_How they did it:_ The focus of Southwestern Vermont Medical Center’s project was to reduce their rate of Clostridium difficile, which was above reported averages. “Our rate of infection averaged 13.62 per 10,000 patient-days,” related Wilma Salkin, Infection Prevention Coordinator.

Salkin highlighted teamwork as a contributing factor in the success of their project. “Nursing and Environmental Services were an integral part of the success.” Use of the Halo Disinfection System, from Halosil International, also was a factor in reducing the rate of C. difficile. The new product necessitated a change in routine, which, again, was resolved by teamwork. “The Infection Prevention team worked with Nursing to accept an increase in turnaround time for discharge procedures,” explained Salkin.

Salkin described the role of the Halo Disinfection System in their successful project. “A hydrogen peroxide with silver aerosol disinfection process, using the Halo Disinfection System from Halosil International, was introduced for all rooms having served patients on precautions, including both C. difficile and methicillin-resistant _Staphylococcus aureus_,” continued Salkin. “This included house-wide periodic cleaning, for example, in the Emergency Department, on a monthly basis.” The product was so effective in reducing infection, noted Salkin, that they expanded its use. “The Halo Disinfection System equipment is now used in our long-term care facility. We continue to monitor outcomes and verify the process is continuing.”

**Results:** The campaign to reduce C. difficile began in December 2012. In March 2014, a significant reduction in the rate of C. difficile infection was reported: 4.70 cases per 10,000 patient-days. The progress continues: the current rate of C. difficile cases is 3.73 per 10,000 patient-days. Southwestern Vermont Medical Center has been able to sustain the reduced rate of infection, “with some small fluctuations,” noted Salkin.

_Satellite WellBound_  
Evanston, IL

Satellite Healthcare, Inc., is a not-for-profit provider of kidney dialysis and related services. Through its affiliated service, Satellite WellBound (home dialysis), Satellite provides early patient-wellness education, personalized clinical services, and a complete range of dialysis therapy choices to over 1,200-plus peritoneal dialysis (PD) and (home hemodialysis) HHD patients nationwide.

_How they did it:_ Satellite WellBound focused on reducing peritonitis in its PD and HHD patients. Irma E. Funes, APN-BC, MSN, RN, Clinical Manager, outlined the steps they took to achieve their goal. “We outlined a simple technique developed in a Satellite WellBound home-dialysis training center (center 1) in response to elevated peritonitis rates in PD patients, one episode per 20 patient-months.” In May 2005, several interventions were introduced: retraining patients; monthly aseptic technique reinforcement, including hand washing and masking; and longer training time for patients.” These steps resulted in a modest improvement in peritonitis rates, one episode per 26 patient-months.

“Satellite Healthcare/WellBound operates with an interdisciplinary approach,” continued Funes. “We involved members at all levels of the organization, from the chief medical officer, the vice president of home therapies, territory director, clinical managers, and, most importantly, the home training nurse, who was responsible for introducing this new technique to patients.”

Satellite WellBound initiated a new protocol in 2007. “We completed our research in 2008. We began with the initiation of the Fish Bone Analysis, which suggested the likely cause of the episode was hand contamination with the transfer set during connection and/or disconnection,” explained Funes. “This allowed us to implement a touch-contamination protocol that included educational sessions at all four of these centers. A great deal of time and effort was dedicated to retraining and educating patients about the simple changes in the procedure for prevention of peritonitis. We also introduced two additional steps, whereby the patient cleans the transfer set with Alcavis 50.”

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Use products as directed.
Company overall peritonitis rates have consistently improved over the subsequent years,” added Funes. “The Alcavis 50 procedure is part of our standing procedures in peritonitis prevention. Remarkably improved peritonitis rates have been sustained, reaching a rate of one infection in fifty-two patient-months in 2015.”

UnityPoint Health
Des Moines, IA

Part of the nation’s fifth largest nondenominational health system, UnityPoint Health–Des Moines provides coordinated clinic, hospital, and home-based care for patients in Des Moines and Central Iowa. The integrated UnityPoint Health system consists of more than 280 clinics, 29 hospitals in metropolitan and rural communities, and home-care services throughout Iowa, Wisconsin, and Illinois.

How they did it: “Dating back to 2010, we had a problem with ventilator-associated pneumonia (VAP),” explained Kit Vander Ploeg, MS, R, CCRN Manager Critical Care IMMC and Special Care Unit MW. “We implemented a comprehensive VAP-reduction initiative beginning in 2011. In 2011, our facility experienced a total of 15 VAPs. The initiative is ongoing...”

Results: The results were so successful in center 1 that Alcavis 50 was then introduced to three other centers with relatively high peritonitis rates (centers 2, 3, 4). “All centers showed a marked improvement in peritonitis rates after the introduction of the Alcavis 50 procedure,” noted Funes. Peritonitis rates, after 6 months, for center 1 dropped to one infection in forty-two patient-months. After twelve months for centers 2, 3, and 4, the rates, respectively, were one infection in thirty-four patient-months, one in twenty-two patient-months, and one in thirty-six patient-months.

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today. Through educational efforts, compliance training, and outcome tracking, we hope to continue to improve the process and improve patient outcomes.”

Teamwork took center stage. “Our RNs teamed with physicians and respiratory therapy to create success,” said Vander Ploeg. “Initially, the intervention involved hi-lo endotracheal tube, raising the head of the bed up 30 degrees, and oral care. While there was a reduction in VAP, it was not totally eradicated. The oral-care frequency was increased, and the results improved. “Part of our initiative included the use of Sage Products Q-Care Oral Cleansing and Suctioning System Q2 with thumb port tool. Our Sage sales representative provided thorough in servicing and helped us track protocol compliance and results.”

“An early mobility program further enhanced our efforts,” said Vander Ploeg. “Teamwork has been enhanced through unit-based councils and TeamSTEPPS.” TeamSTEPPS is an evidence-based teamwork system designed to optimize patient care by improving communication and teamwork skills among healthcare professionals, including frontline staff. For more information, visit www.ahrq.gov/professionals, including frontline staff. For more information, visit www.ahrq.gov/professionals/education/curriculum-tools/teamstepps/index.html.

Results: The reduction in VAP numbers is impressive. “We’ve lowered our VAP rate to 0 percent in 2015,” said Vander Ploeg. The VAP rate has decreased 100 percent since we implemented the initiative. In fact, we’ve had zero VAPs in the last 18 months. In addition, our compliance rates over the past three years (2013–2015) have been at least 80 percent.”

UnityPoint Health’s success was financial as well. “Finance was initially concerned about the costs; however, once we presented our accurately tracked return on investment, they recognized the end justified the means,” noted Vander Ploeg. “The total return on investment on this initiative was $1,804,265.”

Memorial Sloan Kettering Cancer Center is a 470-bed tertiary-care medical center with approximately 23,000 admissions and 150,000 patient-days annually.

How they did it: Although adhering to maintenance practices recommended by the Centers for Disease Control and Prevention (CDC), coupled with educational programs and use of a chlorhexidine-impregnated dressing, high hospital-acquired central-line-associated bloodstream infection (HA-CLABSI) rates were observed, particularly in high-risk units (HRUs).

The impact of routine use of a passive disinfection cap for catheter-hub decontamination in hematology–oncology patients was examined in this study, published in Infection Control and Hospital Epidemiology last year (2015;36[12]:1401-1408). The antiseptic barrier cap, such as SwabCap, available from ICU Medical Inc., concluded that use of CVC disinfection caps constitutes “a practical and low-cost intervention for catheter care.”

Results: Implementation of a passive disinfection cap resulted in a thirty-four percent decrease in hospital-wide HA-CLABSI rates. After the introduction of central venous catheter (CVC) disinfection caps in HRUs (P1 versus P3 and P4), the HA-CLABSI rates in the units did not significantly decrease during P3 (4.47 per 1,000 catheter-days) compared with the baseline. However, the rates declined significantly compared to baseline during P4 to 2.34 per 1,000 catheter-days. The study concluded that use of CVC disinfection caps constitutes “a practical and low-cost intervention for catheter care.”

A substantial amount of money was saved by avoiding extended hospital stays, readmissions, excessive antibiotic use, and healthcare worker time, among other factors. Cost savings associated with use of CVC disinfection caps during this study was approximately $3.2 million. HPN
CS CONNECTION

Educators gain ground as SPD compensation continues climb

by Kara Nadeau

The average salary for central sterile/sterile processing department (CS/SPD) professionals grew $2,126 annually (or 4 percent) from 2015 to 2016, according to the results of the 2016 Healthcare Purchasing News CS/SPD Salary Survey. This continues an upward trend in CS/SPD salaries over the past three years (2013-2016). Other good news: Job security for CS/SPD professionals continues to hold steady with 93 percent of survey respondents stating they felt “somewhat secure” or “very secure” in their current positions.

There are concerns, however, but before we delve deeper into some of the issues facing CS/SPD employees, here’s a rundown of what this year’s Salary Survey revealed (refer to the charts for more details):

• Show me the money: Over half of survey respondents (55 percent) reported an increase in pay and 8 percent experienced a decrease. Those in the Educator category reported the highest pay increase — up $8,714 - followed by Surgical Instrument Technicians and CS/SPD Coordinators at $8,610 and $3,620 respectively. Of those surveyed, 22 percent expect to receive a bonus in 2016. Last year the greatest salary gains were at the CS/SPD Director and Manager levels but this year only small increases were reported.

• Education pays: Education level has a direct impact on compensation. CS/SPD professionals with post-graduate degrees reported the highest pay with an average annual salary of $82,587, up $8,233 from 2015. Those with high school degrees earned 37 percent less. CS/SPD professionals with bachelor’s degrees reported an increase in average pay over last year and Associate’s degree holder’s earnings were comparable to 2015.

• Location matters: Employees working in the Pacific region of the United States were once again the highest earners, reporting $77,594 in average annual compensation. Employees in the Southeastern U.S. and Central regions reported the lowest annual salaries. The type of facility and its geographical location were also determining factors in salary with HMO/PPO/IPO/insurance categories paying the most ($92,500 on average). Higher salaries also were seen in teaching hospitals and IDN/alliance/multi-group organizations while CS/SPD professionals employed by clinics reported the lowest pay.

CS/SPD professionals say they deserve more

Brian Reynolds, CRCST, CIS, CHL, Sterile Processing Service Supervisor at VA Medical Center and President of the Central Florida Association of Central Service Personnel (CFACSP) has been in the profession for 25 years and says despite the growth he’s witnessed salaries are still moving at a slow crawl.

“We when you look at what CS/SPD professionals are required to do, the salaries don’t match up,” Reynolds said. “For example, there are 34 steps to properly clean a scope. Few understand the technical aspect of our work.”

Reynolds explains that as a supervisor it is challenging to attain and retain talented CS/SPD staff because compensation is low. He explains how CS/SPD professionals frequently change jobs — moving from one facility...

---

Yes No Unknown-N/A

63% 25% 11%

56% 26% 18%

33% 53% 14%

48% 48% 4%
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important step toward reaching those goals,” said Josephine Colacci, JD, Government Affairs Director, International Association of Healthcare Central Service Materiel Management (IAHCSMM). “Currently, three states — New York, New Jersey and Connecticut — require certification of CS technicians; however, IAHCSMM’s Advocacy Committee is working hard to advance legislation and CS certification-related initiatives in other states, as well. Even in states that do not currently require certification, we are seeing a growing trend by healthcare facilities and individual CS departments to require certification of their CS technicians. This is a proactive approach that will only help advance patient safety and care quality.”

More respondents did in fact report certification as a requirement of their CS/SPD department, an 8 percent increase compared to last year. Nearly two-thirds of respondents said they hold the Certified Registered Central Service Technician (CRCST) certification.

“The magical question is — how do we retain really good people when the starting salary is on par with those working in fast food?” said Ferriero. “My goal is to make CS/SPD a career. When a promising job candidate comes through my door I admit that the salary is low to start but there’s potential to work up the career ladder. When you get certified you get a bump in pay, then there are coordinator positions where they are making $10 more per hour, plus we have overtime. As a leader, you really have to get creative to attract and keep the best people.”

Certification a continued focus
The number of certified CS/SPD professionals rose 3 percent compared to last year’s survey. Those in the process of becoming certified was up by approximately 1 percent, while those considering certification remained the same at 5 percent.

“As more healthcare facilities focus on infection prevention and patient safety, certification of central service technicians has become more widely viewed as an important step toward reaching those goals,” said Josephine Colacci, JD, Government Affairs Director, International Association of Healthcare Central Service Materiel Management (IAHCSMM). “Currently, three states — New York, New Jersey and Connecticut — require certification of CS technicians; however, IAHCSMM’s Advocacy Committee is working hard to advance legislation and CS certification-related initiatives in other states, as well. Even in states that do not currently require certification, we are seeing a growing trend by healthcare facilities and individual CS departments to require certification of their CS technicians. This is a proactive approach that will only help advance patient safety and care quality.”

More respondents did in fact report certification as a requirement of their CS/SPD department, an 8 percent increase compared to last year. Nearly two-thirds of respondents said they hold the Certified Registered Central Service Technician (CRCST) certification.

“Surgical instrumentation and its need for diligent, standards-based reprocessing to prevent contamination is a topic that continues to make national headlines,” said Julie Williamson, IAHCSMM Communications Director. “Patients rely on CS technicians to provide clean, sterile, well-functioning instruments, and follow best practices and industry standards to stay ahead of the technology curve. Certification helps meet these expectations and ensures that CS professionals possess the essential knowledge and skills necessary
for managing critical departmental duties safely, effectively and consistently. As an added benefit, the ongoing education required for CS professionals to maintain their certification helps ensure that these professionals stay on top of ever-evolving instrumentation, technology, and CS-related standards and best practices.”

However, when asked if their facilities offer a higher level of compensation if a CS/SPD professional obtains certified education units/points, the vast majority (81 percent) said “no.”

“With a full year of required certification under our belt in New York State, let’s use the career ladder to bump those who are certified up to where they need to be in terms of salary,” said Ferriero. “It’s my belief that raising the bar on requirements should directly correlate to an increase in pay.”

Continuing education and training
Most people working in the CS/SPD profession pursue continuing education courses/self-study lessons, with 88 percent participating in five or more per year, and more than half of those doing 15 or more lessons annually.

According to Reynolds, a major challenge to continuing education in the profession is that many hospitals will not pay for CS/SPD staff to take part in training programs or events. In his experience, even when there is a free opportunity for continuing education by type of facility

<table>
<thead>
<tr>
<th>Salary by number of beds</th>
<th>Salary by job function</th>
</tr>
</thead>
<tbody>
<tr>
<td>9% - 0-25 beds</td>
<td>$43,482</td>
</tr>
<tr>
<td>4% - 26-49</td>
<td>$55,667</td>
</tr>
<tr>
<td>8% - 50-99</td>
<td>$48,900</td>
</tr>
<tr>
<td>1% - 100-199</td>
<td>$52,651</td>
</tr>
<tr>
<td>1% - 200-299</td>
<td>$62,254</td>
</tr>
<tr>
<td>1% - 300-399</td>
<td>$61,109</td>
</tr>
<tr>
<td>1% - 400-499</td>
<td>$65,656</td>
</tr>
<tr>
<td>8% - 500-749</td>
<td>$71,360</td>
</tr>
<tr>
<td>5% - 750-999</td>
<td>$64,333</td>
</tr>
<tr>
<td>3% - over 1000 beds</td>
<td>$54,444</td>
</tr>
</tbody>
</table>

| 8% - CS/SPD Director     | $87,065                |
| 35% - CS/SPD Manager     | $74,057                |
| 2% - Educator            | $53,214                |
| 24% - CS/SPD Supervisor  | $51,319                |
| 12% - CS/SPD Tech/Coordinator | $41,167          |
| 5% - Surgical Instrument Technician | $40,167 |
| 14% - Lead CS/SPD Tech   | $36,012                |
| 1% Other                 | $62,500                |

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- Protect peel pouch from punctures and compromised sterility.
- Provides secure tamper-proof protection of soiled surgical instruments.
- Cost effective option for off-site reprocessing.
**CS CONNECTION**

### Salary by education & gender*

<table>
<thead>
<tr>
<th>Education Level</th>
<th>Male (Mean)</th>
<th>Female (Mean)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>High School</strong></td>
<td>80,386</td>
<td>77,500</td>
</tr>
<tr>
<td><strong>Associate’s Degree</strong></td>
<td>55,000</td>
<td>55,145</td>
</tr>
<tr>
<td><strong>Bachelor’s Degree</strong></td>
<td>71,015</td>
<td>71,000</td>
</tr>
<tr>
<td><strong>Post-Graduate Degree</strong></td>
<td>84,500</td>
<td>80,100</td>
</tr>
</tbody>
</table>

*Respondents who declined to disclose their gender are not included in the gender break-out. Any disparity in percentage totals is due to rounding.

### Salary by region & gender*

<table>
<thead>
<tr>
<th>Region</th>
<th>Male (Mean)</th>
<th>Female (Mean)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Northeast</strong></td>
<td>63,371</td>
<td>54,953</td>
</tr>
<tr>
<td><strong>Pacific</strong></td>
<td>83,167</td>
<td>77,119</td>
</tr>
<tr>
<td><strong>Mountain</strong></td>
<td>56,974</td>
<td>56,974</td>
</tr>
<tr>
<td><strong>Southeast</strong></td>
<td>70,042</td>
<td>57,083</td>
</tr>
<tr>
<td><strong>Central</strong></td>
<td>70,042</td>
<td>57,083</td>
</tr>
</tbody>
</table>

*Respondents who declined to disclose their gender are not included in the gender break-out. Any disparity in percentage totals is due to rounding.

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education it is difficult to attract people because there is little motivation to attend.

“I attended a free CS/SPD seminar recently that could accommodate 150 people but only 80 showed up,” said Reynolds. “And while there were CS/SPD supervisors in attendance most did not bring their staff. In general, most hospitals still have nothing in the budget for CS/SPD education. There are hospitals that make certification a requirement but won’t pay for staff to attend the IAHCSMM Annual Conference. They tell you if you want to go then you have to pay for it yourself. When someone isn’t being adequately valued or compensated for their work, it’s hard to convince them to go the extra mile to pursue training during their off hours — particularly at their own expense. I’m fortunate I have a boss who is supportive of continuing education but unfortunately many are not in this position.”

Ferriero describes how he and his colleagues used grant money to set up a program through which students at a local technical college could participate in a CS/SPD certification program for free. He explains how success in the profession “all comes down to education,” stating:

“Sterile processing technicians have to know such a vast area of knowledge and information that it could be its own college curriculum. Programs like this really help push the profession forward. Healthcare today isn’t about what we did 10 years ago or even last week but what we’re doing now and what we’re going to do next week. In CS/SPD we need to learn new things by the minute. That’s why education, being on top of the curve, learning and being cutting edge is so important. We need to increase the salaries and raise the bar to attract the type of individuals that can be successful in this ever-changing and fast-paced environment.”
CS CONNECTION

Preventing reprocessing related outbreaks
In light of last year’s highly publicized carbapenem-resistant Enterobacteriaceae (CRE) “superbug outbreaks,” many facilities are reevaluating their practices and processes for not only the duodenoscopes tied to the outbreaks but across all instruments and devices used in patient care (see December 2015 HPN Article, Chemical weapons in SPD).

More than half of survey respondents said their facilities have put measures in place to help minimize the risk of reprocessing related outbreaks. A good number of those surveyed use track and trace systems for their instruments and an even greater number told HPN that they have implemented safety training programs for handling instruments used on patients with suspected emerging diseases, such as Ebola.

Over a third of CS/SPD professionals surveyed reported that their facilities have changed methodologies around their use of manufacturer instructions for use (IFU). These changes include:

• Requiring IFUs for all instruments and equipment/not processing loaner trays until IFU is obtained
• Refusing to use instruments that do not match the facility’s CS/SPD processes
• Stricter adherence to IFUs/defined processes (e.g., AAMI, AORN)
• Ensuring IFUs are available at point of use
• Electronic IFU access/management versus paper (e.g., OneSOURCE)
• Minimizing the use of immediate use steam sterilization (I USS)
• Increasing the number of instrument sets in use
• Tracking all instruments, including scopes
• Increased education, training and quality control measures to decrease risk of cross-contamination

Advancing the profession
To advance the profession and raise CS/SPD’s profile in the eyes of hospital administration, Reynolds suggests inviting hospital executives to spend a day in their CS/SPD department so staff can walk them through all of the steps they must take to ensure all instrumentation is clean, sterilized and safe to use on the next patient.

“Very few people understand the importance of what we do in sterile processing,” said Reynolds. “Recently I tried to explain our role to a director and his response was ‘so it’s like dishwashing?’ I was dumbfounded. How can you demand that anyone view you as a professional when you are thought of as a dishwasher? I am proud of this profession but we don’t get the recognition we deserve as the last line of defense for patients. The superbug outbreaks in 2015 prompted some needed change. But as for getting the respect we deserve — that has not yet come to fruition.”

Ferriero encourages individuals who are considering a career in CS/SPD to go for it and believes a change in compensation is on the horizon.

“I feel it’s a really great industry and one that’s up and coming. You get to work in a hospital with the best and brightest people and get to really make an impact on patients — knowing everything you touch touches the patient. I would tell young people that it’s a really good time to get interested in this field because we have so much momentum surrounding it.

“It’s such a rewarding career but we just need hospitals to take that extra step to support us; I’m not talking about $10 per hour raises but a couple dollars per hour more just to a respectable entry level salary and then let them earn the rest,” he continued. “Give CS/SPD professionals the opportunity to get certified and get promoted. I’m very hopeful that in the next five to-10 years before I retire we will see a real change in the field.”

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I am the Infection Control Preventionist for a medical center that recently acquired four ambulatory care surgery centers. The plan is to have all used surgical instruments returned to the medical center for reprocessing (e.g., cleaning, reprocessing and/or sterilization). I have been asked to develop a policy and procedure for the safe handling and return of these items to the medical center for reprocessing. Could you provide some guidance or suggestions as to what I should include or cover in such a document?

It is very important to understand that pre-cleaning is the initial step in the sterilization process which means the process begins at the point of use. Here are some considerations to include in your policies and procedures:

- Post-surgery case breakdown should include the proper and safe handling of surgical instruments, sorting and arrangement into trays, baskets and/or containment devices.
- Proper disposal of single-use items and waste (follow protocols for disposition of biohazardous materials) note single use or disposable items are not to be reprocessed.
- Removal of gross soil from instrumentation (pre-cleaning); identify cleaning agent or solution to be utilized in accordance with manufacturer’s instruction for use (IFU) for point of use pre-cleaning.
- Saline should not be used for cleaning or soaking instruments due to caustic reactivity.
- Identify a protocol to be followed to prevent blood, bodily fluids, organic soil or other forms of bioburden from drying or hardening on instrumentation during transportation (e.g., use of enzyme, spray gels, water-moistened towel or humidity package (see figure 1). Keeping instruments moistened will make them easier to clean once they reach the decontamination room. This is especially important when transporting soiled instruments from off-site locations which will result in delayed processing.
- Transportation of soiled contaminated instrumentation is classified as biohazardous and must abide by all relative federal, state and municipal legislative regulations. Be sure to consult your state’s department of transportation (DOT).
- Special consideration must be given to the vehicles that transport instrumentation between the medical center and offsite facilities.
- Complete segregation of clean, sterile and contaminated items must be maintained. This may require a separate vehicle or compartments within one vehicle to accomplish this.
- Transporting vehicle temperatures and humidity will need to be controlled, monitored and maintained to appropriate requirements.
- Vehicle holding compartment will require cleaning and decontamination between uses.
- All clean, sterile and contaminated items are to be contained to protect devices, preserve cleanliness and/or sterility. In the case of soiled contaminated devices the containment device must be leak proof, puncture proof and appropriately identified with a recognizable biohazardous label (e.g., bins or containers with secure lids, enclosed secure compartmentalized transport carts, and/or impermeable bags (see figure 2).
- Reference and follow all relative manufacturer IFUs for care and handling of medical devices, including cleaning, care and handling and appropriate use of chemicals, detergents and the like.

Ray Taurasi is Eastern Regional Director of Clinical Sales and Services for Healthmark Industries.

Figure 1. Enzyme spray, impermeable humidity pack, moist towel.

Figure 2. Sealed compartmentalized transport cart, secured container.
The Flexible Inspection Scope includes a distal tip composed of a light source and camera lens at the end of a 50cm flexible shaft. Designed for instruments 3.2mm in diameter or larger, this is a perfect tool to get a visualization of any potentially soiled tool. Software is included, which installs on both Windows XP & Windows 7, and allows viewing and recording from most computers. Paired with Healthmark Industries’ FlexibleArm, the Flexible Inspection Scope can be securely fastened and moved in numerous ways.
IAHCSMM VIEWPOINT


by Julie E. Williamson

The International Association of Healthcare Central Service Materiel Management (IAHCSMM) is pleased to announce the release of the Central Service Technical Manual, Eighth Edition. This latest version, which became available for purchase in March 2016, has undergone a full revision and features 24 chapters that provide the latest information on all aspects of sterile processing.

“The Central Service Technical Manual has long been the go-to resource for CS professionals, and the Eighth Edition will certainly be no exception,” said IAHCSMM Education Director Natalie Lind. “This latest edition features two entirely new chapters — Monitoring and Recordkeeping, and Personal and Professional Development. There’s also expanded content on endoscopes and sterilization, and of course, updates throughout on standards and regulations impacting sterile processing to help keep professionals up to date. Updating the manual is always a laborious task — one that involves contributions of many authors, researchers, photographers and healthcare companies, and the reliance on subject matter experts to help ensure the content is both accurate and up to date.”

Following in the footsteps of previous versions, the Eighth Edition continues with its goal of helping CS professionals learn the science behind the discipline, as well as the why’s and how’s behind CS-related practices and processes to help those working in the discipline succeed on the job and keep quality and safety a top priority. This new edition will help students become recognized for their knowledge of and dedication to the continually evolving roles of CS technicians. It will also serve to influence the careers of certified professionals, many of whom have worked to distinguish themselves in their chosen field. Lastly, it will serve as a valuable study guide and an enduring educational resource for CS professionals of all titles and tenures.

What follows are some key questions and answers related to the Central Service Technical Manual, Eighth Edition:

A As long as you plan to sit for the CRCST exam before June 2017, it is not required that you purchase the Eighth Edition textbook. Prior to that date, questions on the CRCST exam will be referenced to both the Seventh and Eighth Editions of the Central Service Technical Manual (in addition to ANSI/AAMI’s ST79 or AORN’s Perioperative Standards and Recommended Practices, 2013 Edition). Check with your facility to see if these documents are available and on hand. If not, AORN guidelines may be obtained at www.aorn.org, and AAMI standards are available at www.aami.org and www.iahcsmm.org.

Q Will there be a workbook for the Eighth Edition?
A Yes. The workbook for the Eighth Edition will be available as part of the “boxed set.” The workbook is designed to provide activities (such as practice exercises, review quizzes and progress tests) to reinforce the concepts addressed in the Eighth Edition text and help users measure how well they understand the material in the textbook. The manual is available through IAHCSMM’s online store (www.iahcsmm.org). A

Q Will an Instructors’ Guide be available for the Eighth Edition textbook?
A IAHCSMM will not offer an Instructor’s Guide with the Eighth Edition text. The decision to discontinue offering an Instructor’s Guide was based on two factors:
1. Different instructors offered different course formats and it was not possible to build a tool that would work for all instructors.
2. Security became an issue when instructor materials (including tests and answer keys) were placed in public areas online.

Q What online resources are available to help me study?
A Please use caution when searching online for study aids. Many of the certification study aids offered online are not prepared or managed by IAHCSMM. As such, they may not offer correct information. Beware of sites that promise certification exam answers, etc. A general rule is that if you cannot link to the study aid through IAHCSMM’s website (www.iahcsmm.org), it is not a site connected with IAHCSMM and should be avoided. HPN

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IAHCSMM (International Association of Healthcare Central Service Material Management) has pre-approved this in-service for 1.0 Continuing Education Credits for a period of three years, until March 7, 2019. The approval number for this lesson is HPN 160703.


LEARNING OBJECTIVES
• Discuss the newest guidelines with the most detailed, evidence-based practice recommendations for processing flexible endoscopes.
• Identify new guidelines that will require immediate changes in all procedural settings.
• Describe the need for multidisciplinary teams to develop policies and procedures on processing flexible endoscopes.

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SELF-STUDY SERIES

Processing flexible endoscopes
AORN’s updated evidence-based guidelines

by Rose E. Seavey MBA, BS, RN, CNOR, CR CST, CSPDT

Flexible endoscopes are arguably the most difficult pieces of equipment to effectively reprocess. There are over 120 steps involved in reprocessing each scope. Contaminated endoscopes have been a huge topic with the media and the public due to the reports of infection transmission as a result of inadequately processed scopes. There is no wonder “Inadequate Cleaning of Flexible Endoscopes before Disinfection Can Spread Deadly Pathogens” is listed as the number one hazard on the Top 10 Health Technology Hazards for 2016 from the Emergency Care Research Institute (ECRI).1

There are several published standards and guidelines available for processing flexible endoscopes. Many of these recommendations have been recently updated or newly created. However, some of the recommendations do not address all of the necessary details for effective processing or address the evidence behind the recommendations. Understanding the need to prevent infection transmission via endoscopes, the Association of periOperative Nurses (AORN) released their updated “Guideline for processing flexible endoscopes” on February 1st, 2016. This newest guideline provides evidence-based, detailed recommendations for scope processing room design, best practices for leak testing, cleaning, inspecting, high-level disinfection or sterilization, and storage of endoscopes.2

Evidence-based guidelines
AORN completed a very extensive search of approximately 3,400 published pieces of literature on the subject of endoscope processing and infection transmission. AORN created this updated guideline using 418 of those researched documents which had the strongest evidence for recommendations.1 Each piece of evidence used was assigned an appraisal score that describes the level of strength and quality of the published findings. The evidence ratings are described as:
• regulatory requirements,
• strong evidence,
• high evidence,
• moderate evidence,
• limited evidence, or
• benefits balanced with harm.3

For each reference used the appraisal score is noted in brackets at the end of the recommendation(s). This evidence taken from science and other literature can help health care facilities to implement best practices necessary to meticulously reprocess flexible endoscopes.2

The rationale behind this evidence-based document is to provide guidance to perioperative, endoscopy, and sterile processing personnel for processing all types of reusable flexible endoscopes and accessories.4

Endoscope classification
The guideline explains three classifications of endoscope families proposed by the European Society of Gastrointestinal Endoscopy (ESGE) and based on similar characteristics, such as the amount, construction, purpose, and clinical applications of the channels for each type of endoscope. The endoscopes are grouped into the following families:
• Group 1 endoscopes - typically intended for use in the gastrointestinal tract such as gastroscopes, colonoscopes, and duodenoscopes with an encapsulated elevator channel.
• Group 2 endoscopes - also intended for use in the gastrointestinal tract but may have an additional instrument channel, an elevator channel and up to two control channels for balloon functions such as, duodenoscopes with an open elevator channel, endoscopes for endoscopic ultrasound, and enteroscopes.
• Group 3 endoscopes - includes endoscopes with only one channel system
for biopsy, irrigation, and suction or endoscopes without any channel used in bronchoscopy, such as bronchoscopes, laryngoscopes, and nasendoscopes. According to Sharon Van Wicklin, MSN, RN, CNOR, CRNFA(E), CPSN-R, PLNC, senior perioperative practice specialist at AORN and lead author of this guideline, anyone processing flexible endoscopes must be responsible to stay up-to-date on the most current evidence to protect patients. Some of the new evidence-based guidelines will necessitate changes that should be implemented immediately, for example no longer disinfecting flexible endoscopes manually (e.g., soaking in a pan of high-level disinfectant solution).  

### Processing room design

All flexible endoscopes should be processed in a designated area that is designed and constructed to support processing activities. This recommendation discusses single vs. two separate processing rooms and how they should be designed. It also addresses the need for at least two sinks of appropriate size, the availability of instrument air that can be regulated, appropriate eyewash stations that are immediately accessible, and physical design parameters which include appropriate air exchanges, airflow patterns, humidity limitations and temperature requirements.

Instrument air is a medical gas that is not respired, and is filtered to 0.01 micron, free of liquids and hydrocarbon vapors, and dry to a dew point of -40º F (-40º C).

In a one-room endoscope processing design there needs to be at least a 3 foot minimum space between the decontamination area and the clean work area, as well as a separating wall or a barrier that extends a minimum of 4 feet above the sink rim in order to separate the dirty from the clean work areas.

When bronchoscopy procedures are performed the procedure room should be designed to be under negative pressure to the surrounding areas. When a negative pressure room is not available, supplemental air cleaning may be accomplished with a portable, industrial grade high-efficiency particulate air (HEPA) filter or portable anteroom system (PAS)-HEPA combination unit.

Structural surfaces (e.g., doors, floors, walls, ceilings, cabinets, shelves, work stations) should be smooth and able to withstand frequent cleaning.

### Attire

Clean surgical attire provided and donned at the facility should be worn in both the procedure room and the processing room of the endoscopy suite. Surgical attire includes two-piece pantsuits, scrub dresses, cover jackets, head coverings, shoes, masks, and protective eyewear.

This guidance emphasizes the need to follow the regulatory requirements for appropriate personal protective equipment (PPE) whenever splashes, spray, splatter or droplets of blood, body fluids, or other potentially infectious materials may be generated. PPE includes, surgical masks in combination with eye protection devices (e.g., goggles, glasses with solid side shields, or chin-length face shields), fluid-resistant gowns, general purpose utility gloves that extend beyond the cuff of the gown, and fluid-resistant shoe covers.

### Preclean at the point of use

Flexible endoscopes and accessories should be precleaned at the point of use according to the specific endoscope manufacturer’s instructions for use (IFU). The external surface should be wiped with a soft, lint-free cloth or sponge saturated with cleaning solution. Cleaning solution should be suctioned through all channels and discarded after each use.

### Transportation

Used endoscopes and accessories should be transported to the decontamination area as soon as possible in a biohazard labeled, closed, leak-proof, puncture-resistant container or cart large enough to hold all contents.

Since biofilm starts to form within minutes, processing should begin as soon as possible after transport or within the manufacturer’s recommended time to process.

### Timing is critical

Processing the scope ASAP, or within the manufacturer’s recommended period can help discourage the formation of biofilm, especially in the lumens where it is more difficult to see and remove. Recommendation IV of the AORN guideline encourages facilities to note the times the endoscopy procedure is completed and when the cleaning is initiated. The recordings can be as simple as using a white board or other means of recording. Knowing the time the procedure was completed allows processing personnel to improve efficiencies and establish if delayed processing recommendations from the manufacturer are necessary.

### Dedicated processing personnel

Individuals who have received education and completed competency verification activities related to endoscope processing should perform the endoscope cleaning and processing. When the facility has a team of competent individuals dedicated to endoscope processing the facility and most importantly the patients can benefit. “A dedicated team of individuals responsible for processing flexible endoscopes may also allow endoscopy nurses to focus on clinical responsibilities.”

Endoscope processing staff should receive initial and ongoing education with complete competency verifications including an understanding of the principles and processes related to recommended practices for processing flexible endoscopes.

### Leak test

Flexible endoscopes designed to be leak tested should be leak tested according to the IFU for the specific make and model. Leak testing should be performed after each use, after any event that may have damaged the endoscope, and before use of a newly purchased, repaired, or loaned endoscope. Leak testing can decrease the potential for patient infection or injury and help reduce damage and repair costs. Leak testing should be performed before manual cleaning and before the endoscope is placed into cleaning solutions.

### Manual cleaning, followed by mechanical cleaning

After leak testing and before high-level disinfection or sterilization, flexible endoscopes should be manually cleaned. Cleaning and rinsing should be performed with the type of water, cleaning solution and brushes recommended in the manufacturer’s IFU for the specific make and model of endoscope. In addition to manual cleaning, AORN now recommends the following when compatible with the endoscope manufacturer’s IFU: “Mechanically clean and mechanically process flexible endoscopes by exposure to a high-level disinfectant or a liquid chemical sterilant or mechanically clean and sterilize.” The evidence shows mechanical cleaning improves cleaning effectiveness, increases efficiency, minimizes personnel exposure, and the process can be monitored for quality consistency.

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Visual inspection and cleaning verification test

Endoscopes and accessories should be visually inspected for cleanliness, missing parts, integrity of seals, gaskets and function before use, during the procedure, after the procedure, after cleaning, and before disinfection or sterilization. Visual inspection includes the use of lighted magnification as well as a camera or borescope for inspecting internal channels (if available).

In addition to visual inspection, cleaning verification tests should be used to confirm the ability of the cleaning processes to adequately remove organic soil and microbial contamination. “Cleaning verification tests include adenosine triphosphate (ATP) and chemical reagent tests for detecting clinically relevant soils (e.g., protein, carbohydrate). Periodic verification of cleaning effectiveness may help reduce errors in manual cleaning and improve effectiveness.”

High-level disinfect or sterilize

After cleaning and inspection, flexible endoscopes and endoscope accessories should be high-level disinfected or sterilized. According to the Spaulding classification system, critical items, such as biopsy forceps that enter sterile tissue or the vascular system, should be sterilized. When compatible with the endoscope manufacturer’s IFU, AORN recommends mechanically cleaned flexible endoscopes be either mechanically processed, by exposure to a high-level disinfectant or a liquid chemical sterilant, or sterilized. Mechanical processing should be performed according to both the endoscope and the mechanical processor manufacturers’ IFUs. As soaking for high-level disinfection is no longer recommended, AORN comments that some facilities may need to invest in mechanical processors. For processing flexible duodenoscopes, AORN recommends that a multidisciplinary team consider enhanced methods for processing. Enhanced processing methods include high-level disinfection followed by: quarantining of the endoscope until it is culture-negative; use of a liquid chemical sterilant processing system; a second high-level disinfection process; ethylene oxide sterilization; or use of another FDA-cleared, low-temperature sterilization process.

Endoscope storage

Flexible endoscopes and endoscope accessories should be stored in a manner that minimizes contamination and protects the device or item from damage. Terminally sterilized items should be stored in a sterile storage area in packaging systems which protect the integrity of the sterilized contents until the package is opened for use. Following high-level disinfected or liquid chemical sterilization, flexible endoscopes and accessories should be stored in cabinets of sufficient size to allow scopes to hang freely without coiling and without touching the bottom of the cabinet. Flexible endoscopes should be stored with all valves open and removable parts detached but stored with the endoscope.

Endoscopes storage cabinets should not be placed in the procedure room. The endoscope storage cabinets should be in a clean and secure location of the clean workroom in a two-room processing area or in a separate clean area close to the procedure room.

Flexible endoscopes should be stored in a drying cabinet. If drying cabinet is not available the flexible endoscopes should be stored in a closed cabinet with HEPA-filtered air with positive pressure that circulates filtered air around the scopes. “Using HEPA-filtered air helps prevent bacterial growth in the endoscope. Positive pressure helps prevent contamination of stored endoscopes.”

The researched evidence points to the most favorable storage, which includes the use of a drying cabinet that circulates HEPA-filtered air through the cabinet and forces filtered air under pressure through the channels. Drying cabinets were shown to successfully limit bacterial growth during storage.

Staff should wear clean gloves when handling processed scopes. A sign on the outside of the scope storage cabinet may help remind staff to never touch processed endoscopes or accessories without clean gloves.

Maximum storage time

AORN no longer recommends a specific maximum storage time, such as five days. The recommendation is now to establish a multidisciplinary team including infection preventionists, endoscopy nurses, processing personnel, endoscopists, etc. to determine how long the scopes can be stored without being reprocessed prior to use. The team should take into consideration variables such as how and where the scopes are stored, the results of cleaning verification tests, the requirement to wear gloves when handling processed scopes. AORN has provided an extensive evidence review to assist the team in making this important decision.

Endoscope storage cabinets should be cleaned and disinfected on a regular (e.g., daily, weekly) basis or when visibly soiled with an EPA-registered hospital-grade disinfectant.

Summary

Flexible endoscopes are very complicated devices that are difficult to process and require specific attention to detail in every processing step. Following the new AORN updated evidence-based guidelines can help facilities ensure the effectiveness of processing procedures and help eliminate the possibility of infection transmission from one patient to another. Having competent processing staff and following the endoscope IFU can help to decrease damage to the very expensive endoscopes. A multidisciplinary team should be established to help develop a policy and procedure for endoscope processing. AORN has a policy and procedure template as well as a competency verification tool. The endoscope processing policy and procedure should be standardized throughout the organization.

References

2. 6 New Evidence-Based Practices For Implementing More Effective Processing Of Flexible Endoscopes in; AORN Periop Insider, 1/13/2016.

Ms. Seavey is an Educational Consultant to 3M Health Care.

Rose Seavey is President/CEO of Seavey Healthcare Consulting. Rose served on the AORN Board in 2008-2010 and was President of ASHCS in 2003. She received numerous awards such as AORN’s award for Mentorship in 2012 and Outstanding Achievement in Nurse Education in 2001. In addition, she received the national 2013 IAHCSMM award of Honor, the Industry Leadership Award from the Massachusetts chapter and the educator of the year award from the Golden West chapter. Ms. Seavey is widely published in professional journals and is the author of the book titled Sterile Processing in Healthcare Facilities: Preparing for Accreditations Surveys, published by AAMI and she serves on several AAMI committees writing standards.
Processing flexible endoscopes: AORN’s updated evidence-based guidelines

Circle the one correct answer:

1. “Inadequately Cleaning of Flexible Endoscopes before Disinfection Can Spread Deadly Pathogens” tops the list of the ECRI’s Top 10 Health Technology Hazards for 2016.
   a. True
   b. False

2. The AORN evidence rating system describes the strength and quality of researched literature used to create their updated endoscopy processing guidelines. The ratings include all except:
   a. Regulatory requirements
   b. Undocumented sources
   c. Strong evidence
   d. High evidence
   e. Benefits balanced with harm

3. Laryngoscopes and bronchoscopes belong in the _________ family of endoscopes according to the ESGE.
   a. Group 1 endoscopes
   b. Group 2 endoscopes
   c. Group 3 endoscopes
   d. Group 4 endoscopes.

4. The updated AORN evidence-based guideline for endoscopes will, more than likely, not require any changes that need to be implemented immediately.
   a. True
   b. False

5. If a facility processes endoscopes in an area that only has one room for both dirty and clean processing they should ensure there is at least a 3 feet space between the clean and dirty areas and a barrier that extends a minimum of 4 feet above the rim of the sink.
   a. True
   b. False

6. Surgical attire (e.g., pantsuits, cover jackets, head coverings), and PPE should be worn during endoscopy procedures.
   a. True
   b. False

7. Contaminated endoscopes can be transported to the decontamination area in a towel or pillowcase as long as it is labeled with an appropriate biohazard sticker.
   a. True
   b. False

8. Flexible endoscope processing should include cleaning verification tests such as ATP or reagent tests that detect soils such as protein in addition to visual inspection with the use of a lighted magnification, a camera or borescope.
   a. True
   b. False

9. Cabinets for storing flexible endoscopes should be stored in the procedure room for easy access in case an additional endoscope or accessory is needed during the procedure.
   a. True
   b. False

10. AORN recommends that a multidisciplinary team consider enhanced methods for processing duodenoscopes.
    a. True
    b. False

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Common blood test may predict risk for second stroke

A common blood test for coronary artery disease could be used to predict the risk for having a second stroke, researchers found in a recent study.

High levels of C-Reactive Protein, or CRP, were found in the study to indicate an increased risk for second stroke, which can be paired with genetic variations that even more accurately reveal a patient’s risk, according to researchers at the University of Virginia. CRP is an enzyme made in the liver in response to inflammation, and is checked in blood tests for patient risk for coronary artery disease, which researchers said makes it an easy way to judge for stroke risk.

Even without genetic tests, though, researchers said the blood test is so common that physicians should consider the results for stroke risk, based on their study.

$38 billion will be wasted on unused portion of cancer drugs

High costs for cancer medicines aren’t the only reason they cost insurers and patients so much. Waste pads the bill, a study finds, because infused cancer drugs are distributed in the U.S. in vials that usually contain more medicine than most patients need. Most of the time that excess is thrown out, even though it’s perfectly good and worth hundreds or thousands of dollars.

Researchers at Memorial Sloan Kettering Cancer Center in New York estimate that wasted medicine in vials that usually contain more medicine than most patients need is worth about $38 billion in excess costs.

The study, published in BMJ, details how drug manufacturers, hospitals and cancer doctors make money on unused cancer medicine. It focuses on the top 20 drugs for multiple cancer types packaged in single-dose vials and for which the dose depends on the patient’s weight, finding that 1 percent to 33 percent of those 20 cancer drugs, on average, remains in vials after each dose is administered.

Based on the available vial sizes in the U.S., the researchers estimated that makers of those 20 drugs this year will receive an extra $1.84 billion from charges for unused medicine, or about 10 percent of their expected U.S. sale.

Insurers and cancer patients will pay at least another $1 billion on unused medicine in 2016, based on the markups hospitals and doctors charge over a vial’s price every time they infuse patients with those cancer drugs, the researchers concluded.

In Europe and other places where regulators have more control over drug prices and dose sizes, more vial sizes typically are available, limiting waste. In the U.S., the Food and Drug Administration has guidelines encouraging drug makers to set the amount in vials to minimize waste but ensure more than one vial is rarely needed per dose.

The researchers say regulators could require manufacturers to supply multiple vial-size options.

Will vendor credentialing snap competitive tug-of-war?

Within the last decade, the healthcare industry has yanked the concept of “vendor credentialing” back and forth in a competitive tug-of-war.

On one end, provider organizations were accused of trying to restrict trade by complicating the virtually unfettered access to administrators and clinicians that sales representatives previously enjoyed. If reps didn’t comply with credentialing requirements, they were denied access. And if hospitals used an internal “homegrown” credentialing system instead of outsourcing to a third-party organization they were “profiteering,” too.

On the other end, supplier reps were accused of taking unfair advantage of their access to clinicians by bypassing supply chain gatekeepers that strive to honor group purchasing contracts as well as prevent unapproved deals with physicians that could be used to influence C-suite decisions on their behalf.

In the middle, credentialing advocates espoused the motivation of patient and healthcare worker safety and security. After all, hospitals and other healthcare facilities not only can be incubators for diseases, germs and illnesses that proper immunizations and protections could prevent from spreading, but they also represent confinement for a captive group of people that could be victims of malfeasance or negligence, and even violence.

Based on human nature alone, it’s hard to argue against the safety and security justification, the prevailing motivation that resonates with many. Some organizations have tried to change and even soften the perception that “vendor credentialing” connotes by rebranding it “supplier management” or something more acutely direct, “compliance credentialing,” as in compliant with selected criteria and standards.

And therein lies the latest kerfuffle with vendor credentialing — standardization regardless of players. Even though the vendor credentialing industry has consolidated through mergers and acquisitions within the last five years with three to four key players remaining from more than a half-dozen at its competitive peak, industry observers contend that more efficiencies can and should be achieved.

Reflecting growth

With the proliferation of information technology horsepower and influence, as well as the emergence of varied infectious diseases, vendor credentialing software adoption and implementation continues to surge forward.

Chris Louma, Vice President, Product Management, Global Healthcare Exchange LLC (GHX), which acquired Vendormate in 2014, has seen considerable growth among hospitals to use third-party credentialing advocates.
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port the overall, on-going process, easing
the workload while meeting compliance
requirements.

“The industry is evolving from simply im-
plementing a representative credentialing
tool to addressing the issue of risk across
the entire vendor population, including at the
company, contract and individual levels,”
Louma said. “In the last year, there has been
greater focus on how to drive standardiza-
tion to streamline the process for suppliers
and, in the process, drive higher compliance
with health system requirements.”

Louma said he sees credentialing
becoming part of an overall “vendor
management strategy where credentialing
applies at both the rep and entity level.

“We are seeing the overall vendor on-
boarding process becoming streamlined
to include credentialing. This is a path that
many providers are pursuing to knock out
two birds with one stone — efficiency and
compliance,” he continued. “The demand
for easy access to credentialing data when
making vendor-critical decisions, such as
contract renewals has also been on the rise.
Finally, with the rise of infectious diseases,
such as Ebola, credentialing requirements
will continue to expand.”

For Justin Poulin, Vice President of Sales,
Green Security, the spike in vendor creden-
tialing adoption and imple-
mentation coincides with
the competitive landscape
among providers.

“As healthcare networks
grow in size, they are look-
ing to consolidate multiple
service lines to achieve
increased efficiencies, savings, and added
value,” Poulin said. “Many hospitals have
traditionally utilized disparate systems for
visitor management, contractor access and
vendor credentialing but are now look-
ing to a single source to manage all non-
employees entering healthcare facilities.”

Further, technological advances help ease
acceptance, too, with mobile applications
offering more convenience, Poulin added.

“In this case, vendors and contractors no
longer need to sign in with a username and
password, but can instead check into
the facility instantaneously with a simple
scan,” he noted. “This is beneficial to ven-
dors supporting surgical procedures with
the added advantage of increasing uptime
in the operating room.”

Additional advances emerging include
software that enable hospital staff to
instantly verify the identity of the vendor or
contractor, validate zone level clearance,
and identify relevant certifications or
licenses within the facility,” according to
Poulin. “This allows for improved man-
agement of vendors accessing patient care
areas as well as service delivery personnel,
contractors, equipment installers and sub-
contractors who have traditionally exhib-
ited significantly lower rates of participation
in credentialing programs,” he added.

Acutely non-acute
Vendor credentialing no longer is limited
to hospital settings and just supplier reps
either.

“Regulations and accreditation standards
that drive vendor credentialing needs don’t
segment based on point of care,” said GHX’s
Louma. “Health systems need to manage
compliance within their supply chain rela-
tionships regardless of where care is being
delivered.”

Rick Pleczko, President and CEO, symplr,
highlighted the growth and expansion of
vendor credentialing by
facility type and functional
requests his firm has re-
corded.

“Initially, it was the
larger IDNs and facilities
that spurred adoption,”
Plezcko noted. “We’re now
seeing smaller organizations such as sur-
gery center chains implementing vendor
credentialing as a standard. Over the last
year we’ve seen the requirement for cre-
dentialing expand beyond the traditional
vendor rep population. We’re now see-
ing facilities implement credentialing for
contractors, volunteers, IT consultants and
a wider range of individuals who require
access to patient care areas.”

Plezcko added that symplr’s “largest
single area of growth” involves credential-
ing communities outside the hospital, such
as urgent care facilities, surgery centers and
even home health providers.

Beth Mahler, Vice President, Marketing,
IntelliCentrics, acknowledged vendor cre-
dentialing’s move beyond
acute care hospitals.

“It’s now mainstream for
facilities of all types, from
doctors’ offices to ambu-
tory surgery centers,” she
observed. “Smart execu-
tives across the country are
embracing compliance programs as part of
patient safety initiatives to deliver health-
care excellence. In fact, we all play a role in
patient safety, and vendors are an integral
part of quality care.

“Compliance is just as relevant in the
home, doctor’s office, or stand-alone emer-
gency room,” Mahler continued. “Patients
need to, and deserve to, have confidence
that every person in the chain of care,
from the service technician to the doctor, is
qualified and understands the role they’re
playing in providing a healthy outcome.
Patients also need the information to under-
stand how they can participate in the safety
of their treatment. They, and their loved
ones, are critical factors in minimizing the
risk of exposure to infections and obtaining
the best possible results from their care.”

But at least one provider organization
indicated that resistance pockets have
slowed growth.

“Due to a lack of understanding and the
financial burden placed on vendors, it can
be difficult for some vendors to see the ra-
tionale behind the stringent requirements
for healthcare industry representatives
to gain access to our hospitals,” noted Shane Hughes, CPSM,
Supplier Access Program
Manager, Intermountain
Healthcare’s Supply Chain
Organization.

Hughes lauded Intermountain
Healthcare’s clinical vendors as having
accepted and complied with the organiza-
tion’s credentialing requirements.

“The challenge with vendor credential-
ing in healthcare are the non-clinical ven-
dors such as contractors, consultants and
other service providers who do not always
understand the need for the stringent
requirements because they may not be in
direct contact with our patients and clinical
staff,” he said. “Working with the vendor
credentialing companies and improving
our communication to help vendors under-
stand the requirements and expectations
before entering our facilities will reduce
risk to our patients, other suppliers, and our
employees. Creating a process to credential
these vendors/individuals without placing
an unreasonable financial burden on them
is critical to meet our safety and compliance
goals and objectives.”

Still, Hughes sees the inherent value of
vendor credentialing across the healthcare
continuum.

“With telehealth and other homecare
services coming to the forefront of patient
care, vendor credentialing will be integral
in verifying that the vendor that performs
a service at a patient’s home is compliant
with all applicable requirements,” he said.

“With the assistance of mobile applica-
tions we will be able to assess where and
when they check in, as well as verifying if
they are compliant with the facility-specific
requirements.”

Hughes also tied the credentialing pro-
cess to the electronic health record and
protected health information within and
outside of traditional hospital settings.
“Healthcare providers will be required to manage and credential these individuals even without the representative stepping foot on our campus,” he added. “Credentialing these individuals will be necessary to protect and care for our patients and will be possible only through collaboration between vendors, healthcare providers and credentialing service providers.”

**Credentialing aims**

Peel back the layers of debate surrounding vendor credentialing’s costs and inconveniences and many agree that patient and employee safety and security trump all other concerns – short- and long-term.

“[Compliance credentialing] enables facilities to better manage their risk of infection and untoward incidents that may have adverse effects on patient care,” said symplr’s Pleczko. “As a side benefit, by helping manage vendor/provider schedules and interactions the software promotes efficiency for both the facility and the suppliers. These benefits are being realized today. Our goal is to make the credentialing process as fast and unobtrusive as possible.”

As such, symplr is deploying smart-phone software that allows reps in three seconds to complete credentialing check-in procedures and also exploring “geolocation on mobile devices” for “faster and more unobtrusive” credentialing, according to Pleczko.

Ideally, vendor credentialing software represents an intricate component of an organization’s business operations as well as its larger regulatory requirements, according to GHX’s Louma.

Patient safety may top the list for providers, but functionality polls high for suppliers, he insisted.

“From a more functional perspective, the goal is to have a tool that helps providers clearly communicate and satisfy their compliance needs and at the same time have the most minimal impact possible to a supplier’s business processes,” he said. “As providers and suppliers begin to maximize the tools available, both parties will be able to wrap compliance into their business processes ranging from contract execution to order management to invoice and payment. Done properly, compliance should be an inherent component of these processes and the systems supporting them, not a separate process and system that creates additional tasks.”

Louma noted that GHX Credentialed Exchange ties it all together.

“Knowing who a provider’s business partners are and which ones operate within a facility increases their ability to meet accreditation and regulatory requirements,” he said. “If a provider organization is audited, they must have a way to show that an acceptable percentage of vendors are in compliance with policies. Furthermore, the auditing agency will require that the provider demonstrate how it is managing its vendors.”

For example, the Joint Commission and the Center for Medicare and Medicaid Services conducts audits every three years that includes vendor management policies and procedures. As a result, GHX customers could use GHX Credentialed Exchange data to satisfy those requirements and demonstrate their focus on compliance, he added.

**The big picture**

Managing vendor access to patient information and restricted areas within a facility remains the ultimate goal, Green Security’s Poulin insisted.

“When fully operational, hospitals should be able to control access to different departments within the hospital, manage large construction projects with multiple phases, monitor breaches in security and improve credentialing compliance,” he said. “With advanced reporting, monitoring activity and tracking access can be used for business management purposes, such as comparing vendor access rates with purchasing costs to determine any correlation.”

But organizations cannot limit the scope of vendor credentialing to clinical reps only but also what are known as “business associates.”

“Healthcare facilities are accessed by 10 to 20 times more contractors, service delivery personal, sub-contractors and equipment installers than what many institutions have traditionally considered as a vendor when implementing their credentialing program,” Poulin said. “Contractors who are unqualified or improperly trained can expose the institution to tremendous risk, and may result in large penalties from government agencies, tort liability from personal injury, and even criminal prosecution.”

The scope may seem profound, but it’s logical and necessary.

“In an ideal world, vendor credentialing would encompass any and all outside representatives providing services to the system,” Poulin continued. “Large scale construction projects are typically subcontracted several times and each company will vary in both size and sophistication with respect to their hiring practices. The requirements for pre-employment and ongoing employee screenings will vary significantly from one company to another which represents an unaddressed liability gap for the healthcare institution. This gap can be closed by incorporating all outside vendors and contractors into the credentialing program.”

Yet Intelligencents’ Mahler cautioned healthcare organizations about limiting this process to software alone. It has to include the corporate culture and general behavior.

“Changing the focus from vendor credentialing software to compliance begins with implementing universal industry standards, by role, based on researched best practices and results,” she said. “Software alone cannot achieve the highest levels of compliance at the lowest possible cost. It’s takes a community of professionals, patients and their families, and facilities working together. It starts with everyone understanding the role they play in creating a safe and secure environment. When we all play a role, security and safety are united with people, protocols, and locations. Then, more time can be devoted to quality patient care, mitigating the risk of infection and penalties.”

Intermountain Healthcare envisions a three-tiered or segmented approach to supplier access as idea, according to Hughes. The tiers would include direct patient access, clinical area access and general facility access.

“We envision vendors that have access to higher-risk areas, including patient care areas, require more stringent credentialing requirements,” Hughes noted. “Vendors that only access low-risk areas, such as office space or logistic management areas, would receive no-cost, customized credentialing to meet the standards.”

This tiered process helps the organization manage its various facilities more effectively and efficiently, Hughes reflected.

“When our hospitals diligently apply vendor credentialing software we can see when healthcare industry representatives enter and leave the facility in real time,” he said. “This also assists in a disaster mitigation plan to identify who is located in our facilities during a catastrophic event. In an ideal world, healthcare providers would receive real-time updates if a healthcare industry representative’s criminal background check status has changed. Most vendor credentialing software providers accept attestations from the representative’s company stating that a background check was executed when the individual was hired. Healthcare providers would benefit from receiving urine drug screens or criminal background check updates.”

PEOPLE & OPINIONS

Rapid POC testing for FLU and RSV

How rapid detection of influenza and RSV can help lessen healthcare spending and transmission

by Chuck Cooper, MD

The 2015-2016 flu season had a slow start, with 18,920 samples testing positive for influenza and 18 pediatric deaths as of February 27, 2016. The peak has still not been reached as of February 27, 2016.

At the beginning of each flu season, the medical community and general public often discuss vaccination as a first step towards disease prevention for patients and healthcare workers; however, the topic of diagnostics and its role as an important tool in the care and treatment of patients with influenza and Respiratory syncytial virus (RSV) is often overlooked.

RSV, a highly contagious disease that presents similar clinical symptoms to influenza, is a second disease that healthcare workers must be on the lookout for during flu season. Most children are infected by RSV by age two, and, during influenza epidemics, attack rates might exceed 30 percent in preschool-aged children and 40 percent in school-aged children. The nonspecific presentation of both influenza and RSV, coupled with their overlapping peak seasons, compound the clinical difficulty in distinguishing between the two illnesses. Currently, these conditions are often misdiagnosed in pediatric populations with studies indicating a high prevalence of influenza in young children that were initially suspected of having RSV.

Both influenza and RSV result in substantial morbidity every year. Given the difficult nature of making a diagnosis based solely on clinical symptoms, it is critical that specific diagnostic tools are utilized to better declare diagnosis and assign treatment protocols. The use of point-of-care (POC) diagnostics can help clinicians to better manage, effectively treat, and curb the transmission of influenza and RSV in hospital settings, as well as the cost-per-patient savings associated with successful rapid influenza and RSV detection.

POC diagnostics improve detection and management

The influx of patients with influenza-like symptoms in hospital and other healthcare settings can make it difficult for providers to determine the most appropriate treatment. POC tests in general, and rapid influenza virus detection tests (RIDTs) in particular, can help guide medical staff to quickly detect influenza infections and determine the most effective treatment plan and help lessen the spread of the infectious disease. The BD Veritor System, which is an example of a rapid immunoassay, is simple to perform, can detect influenza A and B, as well as RSV, and is commonly used in office labs, retail clinics, emergency departments, and as rapid screening tests in core hospital labs.

The ability to quickly diagnose influenza and RSV in an outpatient setting allows healthcare providers to avoid repeat testing, decrease the burden on hospitals and emergency rooms, and initiate the correct treatment while also advancing antibiotic stewardship. Fast diagnosis also allows healthcare providers, patients, and caregivers to take measures to stop further spread of the disease with prophylactic therapy for vulnerable, close contacts of the patient, all within a single consultation.

Rapid POC testing and associated cost-per-patient savings

The use of rapid POC testing can help manage overall healthcare costs. As the signs and symptoms of common respiratory viral infections as well as bacterial infections are often similar or indistinguishable, early detection poses an ongoing challenge. Correct identification of influenza or RSV, or elimination of this diagnosis, saves money and may avoid unnecessary use of ineffective treatments.

The use of POC testing provides a fast and correct diagnosis that can help prevent inappropriate use of antibiotics or antiviral...
medications, as well as unnecessary ancillary testing. Such diagnostic testing will also guide more effective decision-making with regard to hospital admission and emergency department referrals while reducing unnecessary spending. This is especially important to consider given the increasing focus on value-based care in the U.S., specifically as it pertains to the cost of medications and superfluous patient testing.

Choosing the right RIDT

Though RIDTs have been used as the primary diagnostic test for acute influenza infections for more than two decades, many RIDTs on the market have variable and unreliable analytical clinical sensitivity in detecting infections. Additionally, readouts can be difficult for users to interpret. For example, current RIDTs show only 10 percent to 70 percent accuracy of detecting influenza in patients. Research has shown RIDT error rates to be as high as 56 percent; the most identifiable source of variability has been found to be the age of the operator.

Fortunately, there are other types of rapid influenza detection tests available. Digital immunoassays, a newer generation of rapid testing, address many of these challenges. Such tests provide digital read-outs allowing for more precise detection, are more sensitive in providing accurate results, are typically easy to perform and are relatively more affordable.

Another consideration to keep in mind is the prospective Food and Drug Administration (FDA) reclassification of RIDT devices. In 2014, the FDA published a proposed rule to reclassify Class I RIDT devices to Class II devices, which will hold these diagnostic tests to higher clinical performance requirements. Based on the information in the proposed rule, manufacturers with assays that do not meet the final requirements will need to improve their RIDTs, perform a new clinical trial, and resubmit data to the FDA to demonstrate compliance with the new requirements. The BD Veritor System Flu A+B test is expected to meet these new standards.

As you prepare for the 2016-2017 respiratory season, consider incorporating a rapid POC test system for quick and accurate flu and RSV diagnosis.

Dr. Cooper is vice president of medical affairs for BD Life Sciences in Sparks, Maryland, where his focus is on clinical trials, evidence generation, and product development strategy. He is a practicing infectious disease specialist who has held clinical positions at Kaiser Permanente and Bon Secours in Baltimore and previously worked at the FDA.
A resounding theme at HIMSS16 (the annual mega conference of healthcare information technology professionals) was the ability to access the wealth of data in electronic health records. One by one, government officials who spoke at the meeting — Health and Human Services (HHS) Secretary Sylvia Burwell, National Coordinator for Health IT and Acting Assistant Secretary for Health Karen DeSalvo, M.D., and Acting Center for Medicare and Medicaid Services (CMS) Administrator Andy Slavitt — all spoke of the need to create an open, connected community in healthcare. It starts with harnessing the extensive patient data that has been accrued in electronic health record (EHR) systems that now operate in all U.S. hospitals and three-quarters of physician practices.

Without compromising the security and privacy of the data, Dr. DeSalvo and others challenged the healthcare IT community to remove artificial obstacles to the data in the form of legal clauses, commercial impediments, intellectual property claims, and unfounded security concerns. To date, the EHR vendors representing 90 percent of patient data, healthcare systems in 46 states and venerable institutions such as the American Hospital Association (AHA) and the American Medical Association (AMA) have taken the pledge (https://www.healthit.gov/commitment). Dr. DeSalvo says those who live up to their commitment will be publicly commended.

To realize this vision, there has to be some place for the data to come from and go to if it is to be effectively shared. Dr. DeSalvo said HI IS recognizes that interoperability extends beyond EHRs to a growing number of systems, devices and databases that need to be integrated with EHRs. One such database is the item master, which for most hospitals is the internal source of truth for product data. In recent years, a number of reports have highlighted the potential clinical and financial consequences of failing to maintain synchronization between data in the item master and the EHR. In other words, we need to start with accurate data feeding the EHR if we are to realize the vision of using EHR data to drive better healthcare decisions for people and populations.

This spring, new regulations go into effect, requiring EHRs to hold unique device identifiers (UDIs) for a patient’s implantable devices and to share that data as part of the Common Clinical Data Set (CCDS). This year’s meeting of the HIMSS Supply Chain Special Interest Group focused on the role supply chain can play in helping meet the requirements of the regulation and the potential of pervasive EHR data. Active Innovations Chief Executive Officer Richard Perrin moderated a panel on which I had the pleasure of speaking with Andrew Gettinger, MD, Chief Medical Information Officer and Executive Director, Office of Clinical Quality and Safety, Office of the National Coordinator for Health IT (ONC), and Ben Moscovitch, Officer, Medical Devices, The Pew Charitable Trusts.

Dr. Gettinger says UDIs in the CCDS can create a new source of information to improve patient and clinician decision-making and facilitate research on real world performance of medical devices. Dr. Gettinger added that the ONC seeks to strike a balance between regulatory mandates and policies that promote creation of a learning healthcare community that supports all stakeholders, especially patients and providers. For that reason, ONC is working closely with other government agencies, including CMS and the Food and Drug Administration (FDA). The FDA, meanwhile, is partnering with multiple private sector stakeholders to support UDI adoption and creation of a national system to evaluate medical devices.

Instead of the federal government mandating every aspect of UDI compliance, interested stakeholders, e.g., manufacturers, distributors, providers, patient advocates, etc., are encouraged to collaborate on the development of best practices for implementing and achieving benefits from UDI use in the real world. Some of the topics suggested include: defining unit of use in the GUDID and in practice, validating the ability to capture accurately UDIs, e.g., with scanning technology, and maintaining a history of UDIs for products sold by companies involved in mergers and acquisitions.

As the Executive Director, Industry Relations at GHX, Karen Conway works with industry associations, standards bodies, government agencies, analyst firms, academic institutions and the media to identify opportunities for hospitals and suppliers to optimize supply chain operations and improve business and clinical performance. Conway is chair-elect of the board of directors of AHRMM, the supply chain organization for the American Hospital Association. Conway is currently writing a book on the Accountable Healthcare Leader, drawing upon the concepts developed in her 2013 global leadership book, Leading from the Edge, which she co-authored with the former chief talent officer of Cisco. Conway serves on the editorial board of Healthcare Purchasing News.
PEGASUS MEDICAL

In today’s patient-care-focused environment, it is critical that supplies are stored and managed so that nurses can quickly locate what they need, when and where they need it. Pegasus offers storage solutions for every department, using LEAN inventory-systems for Materials Management, allowing the clinician to focus on caring for the patient.

See Pegasus Medical at AORN booth #2529
Visit www.ksrleads.com/?604hp-013

CLOROX HEALTHCARE

Clorox Healthcare offers a wide range of products to help stop the spread of infection in healthcare facilities. Our new Optimum-UV Enlight System combines powerful ultraviolet technology with smart data reporting, ensuring that you maximize your facility’s investment and get the efficacy you’re counting on. Visit www.cloroxhealthcare.com/UV. Contact a Clorox Account Manager at (800) 234-7700 or uv@clorox.com.

See Clorox Healthcare at AORN booth #313
Visit www.ksrleads.com/?604hp-019

CYGNUS MEDICAL

SingleCycle Disposable Instrument Tray
- Protects delicate instruments from damage.
- Protects peel pouches from punctures and compromised sterility.
- Provides secure tamper-proof protection of soiled surgical instruments.
- A cost effective option for off-site reprocessing.
- Steam sterilization compatible.
- Solves tray shortage problems during peak periods.
- Perfect for instruments traveling to floors or off-site.

Contact Cygnus Medical at: www.cygnusmedical.com • 800.990.7489

See Cygnus Medical at AORN booth #607
Visit www.ksrleads.com/?604hp-032

MOBILE INSTRUMENT SERVICE & REPAIR

Mobile Instrument is the nation’s largest, full-service equipment repair and maintenance company serving hospitals and surgery centers since 1978. Mobile provides rigid and flexible endoscope repair for all manufacturers’ makes and models, even those deemed obsolete. Mobile is a contracted supplier for all major GPOs providing quality repairs which feature fast turnaround and full warranty at the best possible pricing. Extensive loaner inventories with loaners provided at no charge. Contact Mobile Instrument Repair at 800-722-3675.

See Mobile Instrument at AORN booth #1001
Visit www.ksrleads.com/?604hp-031

PDI

Sani-Cloth AF3 Pail and Refill format helps create faster turnover in cleaning the OR. It has 160 pre-moistened, ready-to-use extra-large wipes, and is alcohol and fragrance free — great for sensitive equipment and patients and staff with respiratory sensitivities. Sani-Cloth AF3 Germicidal Disposable Wipes are effective against 45 clinically relevant microorganisms in just 3 minutes, including: Multi-Drug Resistant Organisms (MDROs), Bloodborne Pathogens, TB and viruses. For more information, visit pdihc.com.

See PDI at AORN booth #813
Visit www.ksrleads.com/?604hp-023

ACUTE CARE PHARMACEUTICALS

Pharma-D Surface Disinfectant is an EPA-registered, validated sterile, cleaner/disinfectant that is available in 16 oz. RTU spray bottles. Pharma-D is a quaternary ammonium designed to remove surface contaminants and disinfect hard, non-porous surface areas. It can be used as an additional disinfectant to use in rotation with Pharma-Hol, in your cleanroom, glove box, or compounding areas.

See Acute Care Pharmaceuticals at AORN booth #676
Visit www.ksrleads.com/?604hp-018

RUHOF

Instrument Transport Humectant Pre-Cleaner
Prepzyme Forever Wet with Bio-Clean Technology is a neutral pH, multi-tiered enzymatic humectant spray which promotes the long lasting retention of moisture on soiled instruments and scopes thus helping to prevent the adhesion of bio-burden. This unique formulation gently coats instruments to maintain moisture making it an ideal pre-cleaner for soiled instruments during transport or when left for an extended period of time.

See Ruhof at AORN booth #2301
Visit www.ksrleads.com/?604hp-024

RUHOF

Rapid Detection of Contamination
Ruhof ATP Complete — The Ruhof ATP Complete System is a quick, easy to use and reliable method to check for microbial contamination, helping to lower the risk of HAIs to patients and staff. ATP Complete can be used throughout your healthcare facility where rapid detection of contamination is crucial. In just 15 seconds ATP Complete verifies the efficacy of cleaning protocols for surgical instruments, endoscopes, and all non-critical surfaces and also monitors the effectiveness of hand washing methods.

See Ruhof at AORN booth #2301
Visit www.ksrleads.com/?604hp-027
HEALTHMARK INDUSTRIES

Cool-Aid Single-use Vests are designed to manage the core body temperature. Worn under surgical attire, they are ideal for use by staff during surgery because cooling is achieved with the reusable cooling packs rather than with a system of hoses and an external source. This innovative design allows for greater freedom of movement without worrying how to launder them.

See Healthmark at AORN booth #1219
Visit www.ksrleads.com/7604hp-021

HAENEL STORAGE SYSTEMS

The Rotomat Vertical Carousel from Hänel can save up to 70% of the existing floor space within a central sterile storage department while improving accuracy, enhancing security and boosting productivity. The Rotomat is ideal for wraps and trays as well as implants, consumables and soft goods. Visit www.sterilestorage.com to learn more.

See Hänel at AORN booth #1368
Visit www.ksrleads.com/?604hp-020

KEY SURGICAL

Key Surgical now offers Anti-Fog as part of their O.R. Products line. This sterile, ready-to-use product helps remove condensation on the distal end of an endoscope to help ensure clear vision during a procedure. The kit includes a non-alcohol based, specially formulated solution (5ml) and a radiopaque, non-abrasive sponge. Adhesive-backed for universal placement. Single use.

To learn more about the O.R. Products from Key Surgical please contact your Key Surgical representative or visit www.keysurgical.com

See Key Surgical at AORN booth #201
Visit www.ksrleads.com/7604hp-026

OLYMPUS

Your Vision, Our Future

Olympus recognizes and appreciates the role perioperative nurses play in the success of medical innovations and improving patient outcomes. Stop by our booth and earn continuing education credits with our featured study guides.

See Olympus at AORN booth #2138/2267
Visit www.ksrleads.com/?604hp-022

NEW PRODUCTS

Stainless steel washer sleeves

Manufactured for effective transportation, washing and storage of sensitive medical instruments, perforated Stainless Steel Washing Sleeves from Healthmark have a 17mm internal diameter and external diameter of 19mm. Included with the washing sleeves are two silicone caps that have crossed perforations for alternatively inserting fine tipped instruments, a circular stainless-steel identification tag capable of laser engraving and a stainless-steel ring-holder that joins the tag to the washing sleeves. The Stainless Steel Washing Sleeves are heat-resistant up to 275 °F, and are available in four different lengths of 2.16 inches, 8.66 inches, 15.16 inches, and 19.48 inches. Visit www.hmark.com or call 800-521-6224 for more information.

3M Multipore Dry Surgical Tape, a specialized tape that provides reliable, long-lasting adhesion even under moist conditions, gives clinicians the confidence needed that nasogastric (NG) endotracheal (ET), chest, and other critical tubes will effectively stay in place. Designed for use primarily in intensive care units, Multipore Dry tape can adhere to wet skin for up to 72 hours. Its elastic backing allows it to conform to all contours and curves of the body and to accommodate movement, breathing and swelling. The elastic backing is also non-irritating and soft-to-skin, making it suitable for tiny newborns or patients with delicate skin. Multipore Dry is the only critical tube securement tape featuring a grid liner backing to help clinicians precisely customize the size and shape. Visit 3M at 3M.com/medicaltape.

See Healthmark at AORN booth #1219
Visit www.ksrleads.com/7604hp-101

Dry surgical tape

3M Healthcare

Visit www.ksrleads.com/7604hp-102

Germ-zapping robots

Xenex Disinfection Services now offers the LightStrike Germ-Zapping Robot, a portable disinfection system that destroys antibiotic-resistant bacteria in a four-minute cycle. LightStrike uses pulsed xenon to create broad spectrum, highly intense light covering the entire germicidal spectrum. In addition to its 20 percent faster cycle time, LightStrike includes patented SureStrike technology, which validates bulb ignition and guarantees a proper broad spectrum pulse for every disinfection cycle. Xenex robots also include HAI rate tracking, which correlates use of the robot and the hospital’s own real-time HAI data to track the disinfection program’s effectiveness. LightStrike robots destroy CRE, MRSA, ESBL-producing Enterobacteriaceae, VRE, multidrug-resistant Pseudomonas aeruginosa, multidrug-resistant Acinetobacter and C.diff spores. Visit www.xenex.com.

See Olympus at AORN booth #2138/2267
Visit www.ksrleads.com/7604hp-022

XENEX

Visit www.ksrleads.com/7604hp-103
Super-size bin lids

These clear plastic lids are designed for popular bin models 30280, 30281, 30282, 30283, 30286 and 30290. The two-piece hinged lids cover and protect bin contents while allowing access to items — creating an access door even when bins are stacked. The sturdy lids — made of clarified polypropylene — have integrated stop tabs that prevent stacked bins from shifting. Super-Size AkroBin lids can be used with optional length dividers, width dividers, mobile kit, window inserts, and adhesive labels and card stock holders to create the perfect storage system for large and bulky items. Visit https://www.akromils.com/Products/Types/Plastic-Storage-Containers/Super-Size-AkroBins.

AKRO-MILS
Visit www.ksrleads.com/?604hp-104

Benchmark for purchased services

This customized assessment tool from Medpricer compares what a health system is spending in chosen categories against Medpricer’s $14 billion sourcing benchmark database. Different than other benchmark solutions geared towards medical-surgical and commodity products, Medpricer’s database is based on purchased services competitive bids and specific requirements. Visit medpricer.com.

MEDPRICER
Visit www.ksrleads.com/?604hp-108

UV Sanitizers

The SKY family of UV Sanitizers by Seal Shield LLC sanitizes smart phones and tablets in less than 30 seconds to help reduce the spread of super bugs. Designed for use in hospitals to protect patients and practitioners from dangerous cross contamination infections, the SKY UV sanitizers use high intensity, 254 nanometer UVC light, at close proximity of less than 60 thousandths of an inch, to thoroughly disinfect a tablet or smart phone and achieve up to a 6 log reduction in pathogens such as MRSE, VRE, MDR-gram negative, Norovirus and C. diff. Visit www.SealShield.com/.

SEAL SHIELD LLC
Visit www.ksrleads.com/?604hp-109

Ultrasound probe storage cabinet

CS Medical LLC’s probe storage solution, the CleanShield Ultrasound Probe Storage Cabinet, protects delicate ultrasound probes from damage and minimizes environmental contamination. CleanShield is constructed of thermally fused polypropylene that can be disinfected easily and is non-hygrosopic. Dedicated shelving mounts and receptacles allow each ultrasound probe to be suspended while bathing in clean, HEPA filtered air. Visit www.csmedicalllc.com/about/press-releases/cleanshield-ultrasound-storage-cabinet.htm.

CS MEDICAL LLC
Visit www.ksrleads.com/?604hp-112

SUTURE EASE
Visit www.ksrleads.com/?604hp-106

Laparoscopic fascial closure device

The CrossBow Fascial Closure System by Suture Ease makes it easier for surgeons to perform reliable and reproducible fascial closure during minimally invasive surgery. CrossBow’s unique closure mechanism is designed to minimize complications and costs associated with port-site herniation. The system comprises a guide and proprietary suture passer. No grasper is required and the device’s intuitive guide operation, enhanced snare loops and controlled tissue “bite” help enable easy suture placement and retrieval. Additionally, it facilitates multiple stitch patterns, offering broad versatility to accommodate a variety of patient anatomies and surgical disciplines, including gynecology, bariatric, general surgery and urology procedures. Visit http://www.suturease.com/#crossbow/cupv for an animation of how the device works.

NEW PRODUCTS

Decision support solution

Wolters Kluwer’s cloud-based decision support platform, the POC Advisor, improves diagnosis and treatment of sepsis using automated, real-time surveillance that aggregates, normalizes and analyzes patient data from disparate clinical systems to deliver early sepsis alerts and treatment advice to clinicians via mobile devices and clinical portals. With hundreds of rules built into the platform to account for variables specific to individual patients, including comorbidities and medication abnormalities, POC Advisor ensures that alerts are both highly sensitive and specific. Visit www.wolterskluwer.com.

WOLTERS KLUWER
Visit www.ksrleads.com/?604hp-110

Medical carts for mobile storage

DETECTO’s Rescue and Whisper series medical carts are built with quality aluminum and come in multiple color options with five or six drawers and 360-degree rotation for tight corners. Unique drawer facades quickly snap off and back on and completely sealed drawer rails have no exposed seams for hygienic wipe-down cleaning. Insulated interior walls provide whisper-quiet rolling, soft-close drawers glide shut, and the cart stays upright and stable when full drawers are extended. The keyed or EMG breakaway central lock secures all drawers at the same time. Visit www.detecto.com/product-family/medical-carts.

DETECTO
Visit www.ksrleads.com/?604hp-105

70-pound G-Flex Washer

Continental Girbau Inc. (Continental) has added a 70-pound capacity G-Flex Washer to its line of hard-mount flexible-speed washers. G-Flex Washers deliver six programmable extract speeds, including 100, 140 and 200 G-force. The 70-pound capacity model offers 21 percent more capacity than the 55-pound model and fits through a standard 34.5-inch door opening. The Logi Pro Control offers 25 individually modifiable programs. Variables within each bath — including wash temperature, water levels, cycle times, rotation and G-force extract speeds — can be individually programmed for maximum efficiency given the load type. Visit www.continentalgirbau.com.

CONTINENTAL GIRBAU INC.
Visit www.ksrleads.com/?604hp-111

Antimicrobial copper faucet handles

CuVerro antimicrobial copper-nickel faucet handles by Just Manufacturing kills microbes to help mitigate the transmission of infections on touch surfaces. Antimicrobial copper faucet handles can be combined with a wide variety of Just faucets, stainless steel sinks and antimicrobial copper-nickel sinks. The CU-1774-K which conforms to ANSI standard 112.18.1 and is certified to NSF/ANSI 372, has a cast brass body, featuring a rigid gooseneck spout with 7 3/8” clearance, and a gooseneck spout with 7 3/8” clearance, and is certified to NSF/ANSI 372.

CUVERRO
Visit www.ksrleads.com/?604hp-107

Laparoscopic fascial closure device

The CrossBow Fascial Closure System by Suture Ease makes it easier for surgeons to perform reliable and reproducible fascial closure during minimally invasive surgery. CrossBow’s unique closure mechanism is designed to minimize complications and costs associated with port-site herniation. The system comprises a guide and proprietary suture passer. No grasper is required and the device’s intuitive guide operation, enhanced snare loops and controlled tissue “bite” help enable easy suture placement and retrieval. Additionally, it facilitates multiple stitch patterns, offering broad versatility to accommodate a variety of patient anatomies and surgical disciplines, including gynecology, bariatric, general surgery and urology procedures. Visit http://www.suturease.com/#crossbow/cupv for an animation of how the device works.

NEW PRODUCTS
HAVING MY SAY

Making PPIs a positive force in provider operations

by Kelle Laws

It’s not uncommon for physicians to feel loyal toward their preferred tools and equipment. Physician preference items, or PPIs, usually follow physicians through medical school, residencies, and fellowships and into practice. As a result, physicians may be more familiar with the supplier brands they work with than the providers they work for.

As desirable as some supply chain leaders and hospital administrators might view being able to provide a selection of PPIs to every physician upon every unique request, PPIs are commonly expensive and a challenge to manage logistically. To appeal to the preferences of multiple physicians, one health system might have a 20 percent share across five different manufacturers, possibly with high prices from all five.

Managing PPIs effectively requires a supply chain strategy that can promote supplier compression while working with physicians to ensure quality and satisfaction needs are being met. Ideally, a collaboration goal between clinicians and providers delivers significant supply cost savings and standardization of care delivery.

Moving toward PPI management

To drive those savings and patient outcomes, we must begin with clinician engagement. When hospital leaders can get clinicians involved in the process early and keep them involved throughout, there’s a mutual understanding of all parties’ needs and motivations.

Doctors and surgeons want to help people and are interested in the evolving methodologies of doing so. Likewise, we can help them better understand what their health systems are seeking to accomplish in the supply chain — and how those efforts will help providers — by reaching out to them and involving them in the development of the contract award strategy and the decision-making process.

Early physician input is valuable in the ultimate goal of arriving at the right decision for a provider organization. Transparency with physicians is vital. It starts with effective information sharing, open dialogues, and respectful questioning. Such questioning could include: “If you could use product X instead of product Y without dramatically changing your workflows, would you do that?” or “If you would continue to receive clinically acceptable products that meet or exceed your clinical expectations and that provide healthcare dollar values to the hospital and patients, would you be more likely to engage in the process of PPI management?”

We need not only clinician buy-in, but also clinician input because clinicians and their patients are the actual consumers of the high-dollar implants that the hospital leadership is working to manage.

PPIs and the supply chain

Once clinicians are engaged and the movement toward a model of collaboration and sharing is underway, supply chain and the provider organizations can address how to collectively move PPIs into the most appropriate price points to drive value.

Methods to move toward driving more value vary from situation to situation. For example, providers that self-source or work with smaller group purchasing partners will have more leverage than those that work with large national group purchasing organizations (GPOs) because each provider represents a larger percentage of that smaller supply chain business model’s expenditure. For example, if a health system has 80 percent of its physicians willing to commit to a preferred single supplier for a product category, it can negotiate a much better price and should expect to do so with that supplier.

Suppliers in these situations are motivated by two factors: commitment and volume. If a manufacturer can expect a long-term commitment and a health system’s expenditure on the volume of product is significant, it will yield more organizational value.

Similarly, if we can manage alignment with clinicians on PPIs, we can drive contracting with high levels of commitment and, therefore, better prices. If possible, partnering with other local health systems to increase volume and further drive down prices is advantageous.

Looking past the balance sheet

Beyond the cost savings, PPI alignment also leads to better patient outcomes, as we can standardize care while building a workforce of clinicians, nurses, and other health care workers who are all familiar with the same products. A reduction in the amount of variation from physician to physician and patient to patient will advance the delivery of care in small but collectively significant ways for a service line of care.

For example, in physical therapy protocols after a hip or knee replacement, reducing the variation in which implants a physical therapy group sees from a particular hospital or physician practice will improve physicians’ treatment protocols for members of that group. The more they know what to expect, the more they develop a level of comfort with how that item affects patients and which issues they need to address. That reduction especially improves post-surgery care because the physical therapists see the same inputs time after time and develop better ways to address them.

Ultimately, making PPIs a positive force for all of us is about being transparent with our messages, aligning with physicians, and understanding our roles as agents for change on behalf of clinicians. Physicians will make the decisions — supply chain leaders just have to put the right information in front of them so they can make the most informed choices and maximize the benefits to themselves, their patients, and their providers.
HAVING MY SAY

Kelle Laws is a member of ROI’s Integrated Sourcing Solutions team, which collaborates with health care providers to manage the evaluation, selection, contracting, standardization, and utilization of products and services to support patient care. With more than 20 years of experience in health care supply standardization and process improvement consulting, Kelle helps healthcare providers with contracting and clinical guidance for physician preference items, such as cardiovascular, orthopedic, and neurosurgery implants.

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Most supply chain professionals realize that a million dollars in inventory reduction does not equal a million dollars in savings from an asset (official) inventory.

In an official inventory, the annual savings comes from a reduction in carrying costs. This savings is only a fraction of the value of the total reduction. With a non-asset (unofficial) inventory — like an OR inventory that has not been booked — the inventory reduction can equal one-time savings plus the annual carrying cost. This is because the supplies have already been expensed to the department and, theoretically, the inventory reduction will result in these expensed dollars being returned in some way. But — and this is a very big but — the actual savings is rarely equal to the reduction.

Inventory reduction in unofficial inventories can result in a savings depending on the way that inventory is reduced. The ideal way is to reduce the on-hand quantities through lower reorder points and reorder quantities. Instead of carrying 30 days of supply you might carry 15 days of supply. That would mean you don’t order 15 days of supply that you normally would have and you expense 15 days less. Those dollars go right to the bottom line.

Another unrealistic but understandable way to explain it is to imagine having a full year’s worth of inventory of an item. Each year you purchase a year’s worth of the goods. Now imagine you change your practices so that you only keep six months of inventory. For the first year you would only purchase half a year’s worth of goods as you draw down the inventory. For that year you would only spend half of what you had purchased the previous year. So you would have a one-time savings of that amount. The next year you would again purchase a full year’s worth of goods, but would only hold six months’ worth of inventory.

In an official inventory the goods have not yet been expensed. They are an asset. So when you don’t order that half-

fee. For older goods this could be added to a reduction in the return value. So a loss of 20 percent to 50 percent is not unusual. When the original vendor will not take the goods back, an organization may sell to a third party that specializes in purchasing and reselling such items. In this case the loss could be as much as 90 percent. When this fails the organization is left with donating or disposing of the items. Then the loss is total.

Inventory reduction in an unofficial inventory can result in a one-time savings anywhere between 100 percent of the reduction to none at all. For an asset inventory, any recovery of value less than 100 percent results in a net loss because any loss in value must be expensed and is a negative savings. This is one reason to be very careful in any program to make an unofficial inventory into an official one. This is a good activity and a best practice. But only include items that are actively being used. The time to eliminate excess and obsolete items is before you put them into inventory, not after.

The best way to prevent losing value in your inventory, whether official or unofficial, is to closely manage the stock to avoid excess and obsolescence. This starts with controlling the introduction of new products which often partially or fully take the place of other items. You must consider the effect the new product is likely to have and try to use up old stock before introducing the new. If this is not possible, take immediate steps to return or sell the old product. The faster you do this, the greater the likelihood of regaining all or even some of the value.

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