$7.00

July 2021 • Vol. 45 No. 7

HEALTHCARE PURCHASING NEWS®

CLINICAL INTELLIGENCE FOR SUPPLY CHAIN LEADERSHIP

www.hpnonline.com

Sponsored Content

A Complete Flooring System for Healthcare

Contact HPN:
email: hpn-subscriptions@endeavorb2b.com /phone: 941-927-9345 / fax: 941-927-9588

Interface®
Carpet Tile | LVT | nora® Rubber Flooring

Interface®

Carpet Tile | LVT | nora® Rubber Flooring

A system of solutions.

Interface provides high-quality, high-performance solutions for every healthcare space, from waiting rooms to patient rooms. Our portfolio of flooring options eases the cost of maintenance, helps reduce noise and provides added comfort underfoot.

interface.com/healthcare

$7.00

July 2021 • Vol. 45 No. 7

HEALTHCARE PURCHASING NEWS®

CLINICAL INTELLIGENCE FOR SUPPLY CHAIN LEADERSHIP

www.hpnonline.com

2021 EVS Guide:

Charting a cleaning course

EVS path steady in pandemic

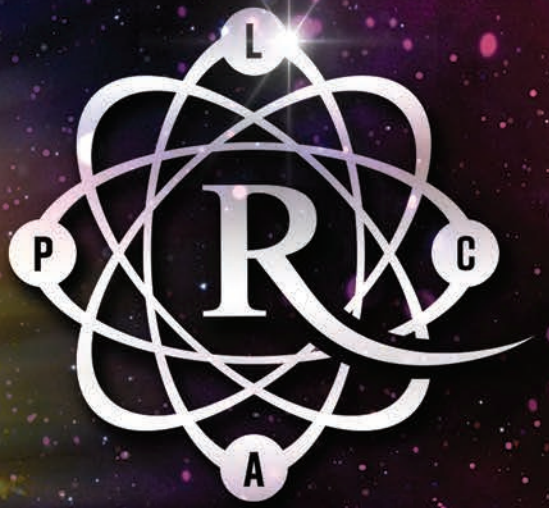
Supply Chain - Focused Clinicians
Reprocessing Workflow
Sharps Safety
Storage

A STAR IS BORN!

*FOR THE **EFFECTIVE DECONTAMINATION** OF SURGICAL INSTRUMENTS & ENDOSCOPES*

OPTIMIZED FOR SPEED & EFFICIENCY

*A POWERFUL PERFORMANCE WITH **4 NEW ENZYMES***



MANUAL CLEANING "AT THE SINK" ULTRASONIC

AUTOMATIC WASHERS

The two Elementum formulations were born from the fusion of 4 robust chemical forces in the form of **POWERFUL NEW ENZYMES.** These **ALL NEW** Protease, Amylase, Lipase, and Cellulase Enzymes are synergistically blended to produce two **BEST-IN-CLASS** formulations which rapidly break down tough-to-clean medical soils including the multi-layers of bioburden. Clinically tested for use in manual cleaning **AT-THE-SINK**, in Ultrasonic Machines and in Automatic Washers **ELEMENTUM HAS SIMPLY BEEN OPTIMIZED TO CLEAN BETTER*** Use it and experience **ELEMENTUM'S STAR POWER!**

****ELEMENTUM EXCLUSIVELY MEETS THE QUALIFYING CHARACTERISTICS OF AN OPTIMAL DETERGENT PER AORN, AAMI AND ASTM D8179 GUIDELINES.***

RUHOF

WWW.RUHOF.COM • 1-800-537-8463

AD 60 081420

IN THIS ISSUE...

July 2021 • Volume 45, No. 7

HEALTHCARE PURCHASING NEWS

Photo credit: georgerudy | stock.adobe.com

Photo credit: rumruay | stock.adobe.com

Photo credit: Roger | stock.adobe.com
Photo credit: Kostiantyn | stock.adobe.com

Photo 183324584 © Nataliia Mysik | Dreamstime.com

Photo credit: Vadim | stock.adobe.com

SPECIAL FOCUS

OPERATING ROOM

CS CONNECTION

INFECTION PREVENTION

PRODUCTS & SERVICES

EXPERT EXCLUSIVES

CleanSpace®

RESPIRATORS

EVERY ANGEL DESERVES A HALO

PROTECTING FRONTLINE STAFF FROM AIRBORNE CONTAMINANTS

- High Protection 99.97% against biohazards (APF 50 & 1000)
- Reusable and cost-effective
- Comfortable & lightweight 350g/0.8lb
- No belts or hoses
- IP Rated 66 water tolerant
- Simple and fast to don
- NIOSH approved
- \+ STERI-PLUS exhalation filter for Source Control

REQUEST A DEMONSTRATION

sales@cleanspacetechnology.com

WWW.CLEANSPACETECHNOLOGY.COM

2021 OHS Industrial Hygiene Awards

reddot winner 2021
innovative product

NIOSH APPROVED

CE

IP66

HC-052021

DEPENDABLE

Saluting Supply Chain

National Healthcare Supply Chain Week may be three months away (typically the first week in October every year), but that shouldn't be a license to limit your visible appreciation for an essential organizational artery merely to seven of 365 days.

Spouses celebrate their anniversaries on a single day, as do moms (in May) and dads (in June), but that doesn't mean we accuse, blame, dismiss, ignore and ridicule them the rest of the time.

A few years back a prominent supply chain executive once remarked that just because no one complains doesn't ensure everything's going well. Sage words.

Against the backdrop of the pandemic crisis that has bedeviled and gripped us for the last 17 months, we need to fete the supply chain executives, leaders and professionals who have performed and served as optimally as possible. To some, the time spanning the years 2020 and 2021 sparked a realization that the supply chain is broken. I counter that it's been battered, beaten and bruised – and perhaps bent a bit – but we're still moving forward.

As promised in my April column, I list below the four finalists for *HPN*'s 2021 Supply Chain Department of the Year recognition. We feel it's important that these teams are recognized and honored for their contributions. Next month, one of these four teams will earn this year's crown:

- Banner Health, Phoenix
- CentraCare Health, St. Cloud, MN
- South Broward/Memorial Health, Hollywood, FL
- Stanford (CA) Medicine

This month, however, we hope these four teams consider it a privilege to be nominated and reach the finalist stage. We respect and salute their achievements and invite you to do the same for them and for all supply chain teams.

Visit https://hpnonline.com/21225416 for "Seven Degrees of Supply Chain Success."

DATA BANK

How are physicians at your organization involved in the supply chain process?

	2021	2020	2019	2018	2017
Physician-owned distribution (POD) program(s)	50.00%	50.00%	51.70%	54.50%	52.20%
They are part of the supply chain staff	28.50%	26.50%	29.10%	24.70%	28.70%
They are part of the supply chain staff and lead/oversee certain functions	13.70%	9.10%	9.60%	15.30%	10.40%
Bundled payments	13.00%	10.60%	7.80%	7.10%	8.30%
Gainsharing	4.10%	4.50%	3.00%	5.50%	7.80%
Other	4.10%	4.50%	7.40%	5.50%	7.80%
They actively collaborate/participate in supply/service contract negotiations	2.20%	3.80%	3.50%	5.20%	5.70%
Don't know	1.90%	2.30%	0	0	0
They are not involved at all	0.70%	0.80%	1.30%	4.20%	2.20%
They actively collaborate/participate via Value Analysis Committees/Projects/Teams	0.70%	1.50%	1.70%	2.60%	3.50%

Source: *Healthcare Purchasing News* readership survey 2017-2021

EDITORIAL

Publisher/Executive Editor *Kristine Russell*
krussell@hpnonline.com
Senior Editor *Rick Dana Barlow*
rickdanabarlow@hpnonline.com
Managing Editor *Ebony Smith*
esmith@hpnonline.com
(941) 259-0839
Contributing Editor *Kara Nadeau*
knadeau@hpnonline.com

ADVERTISING SALES

East Coast *Blake and Michelle Holton*
(407) 971-6286
Midwest *Randy Knotts*
(312) 933-4700
West Coast *Blake and Michelle Holton*
(407) 971-6286

ADVERTISING & ART PRODUCTION

Ad Contracts Manager *Tiffany Coffman*
(941) 259-0842
Graphic Design *Tracy Arendt*
List Rentals *Laura Moulton (941) 259-0859*

EDITORIAL ADVISORY BOARD

Jimmy Chung, MD, FACS, Associate Vice President, Perioperative Portfolio, Providence St. Joseph Health, Renton, WA; **Joe Colonna**, Chief Supply Chain and Project Management Officer, Piedmont Healthcare, Atlanta, GA; **Karen Conway**, Vice President, Healthcare Value, GHX, Louisville, CO; **Dee Donatelli**, RN, CMRP, CVAHP, Vice President Of Professional Services, symplr, and Principal, Dee Donatelli Consulting, LLC, Overland Park, KS; **Melanie Miller**, RN, CVAHP, CNOR, CSPDM, Value Analysis Consultant, Healthcare Value Management Experts Inc. (HVME) Los Angeles, CA; **Dennis Orthman**, Consulting, Braintree, MA; **Janet Pate**, Nurse Consultant and Educator, Ruhof Corp.; **Richard Perrin**, CEO, Active Innovations LLC, Annapolis, MD; **Jean Sargent**, CMRP, FAHRMM, FCS, Principal, Sargent Healthcare Strategies, Port Charlotte, FL; **Rose Seavey**, RN, BS, MBA, CNOR, ACSP, Seavey Healthcare Consulting Inc., Denver, CO; **Richard W. Schule**, MBA, BS, FAST, CST, FCS, CRCST, CHMMC, CIS, CHL, AGTS, Managing Director Synergy Health NorthEast at STERIS Instrument Management Services; **Barbara Strain**, MA, CVAHP, Principal, Barbara Strain Consulting LLC, Charlottesville, VA ; **Deborah Petretich Templeton**, RPh, MHA, Chief Administrative Officer, System Support Services, Geisinger Health, Danville, PA; **Ray Taurasi**, Principal, Healthcare CS Solutions, Washington, DC area

SUBSCRIPTION RATES

Annual Subcriptions (prepaid only)
U.S.: $120.00 **Canada/Mexico:** $155.00
Foreign A/O: $221.00 **Digital Subscription**: $60.00
Discounts: 2 yrs: 10% 3 yrs: 15%
Current Issue
U.S.: $15.00 **Canada/Mexico/Foreign A/O:** $20.00
Back Issue
U.S.: $17.60 **Canada/Mexico/Foreign A/O:** $22.00

CHANGE OF ADDRESS

Subscribers: For change of address, send your old and new addresses to *Healthcare Purchasing News*, 2477 Stickney Point Road, Suite 315B, Sarasota, FL 34231. Fax: (941) 927-9588, Email: *hpn-subscriptions@endeavorb2b.com*. Allow 4 to 6 weeks for correction. All other inquiries, call Tiffany Coffman at (941) 259-0842.

CORPORATE TEAM

Healthcare Purchasing News (ISSN: 1098-3716) is published monthly by Endeavor Business Media, 2477 Stickney Point Road, Suite 315B, Sarasota, FL 34231, Phone: (941) 927-9345, Fax: (941) 927-9588,

ENDEAVOR BUSINESS MEDIA

CEO Chris Ferrell
CRO/CMO June Griffin | **CFO** William Nurthen
COO Patrick Rains
Chief Administrative and Legal Officer Tracy Kane
EVP Special Projects Kristine Russell

www.hpnonline.com, Business hours: 8:00 a.m.-5:00 p.m. EST.

Copyright 2021 by Endeavor Business Media. All rights reserved. No part of this publication may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopy, recording, or any information storage-and-retrieval system, without permission in writing from the publisher. *Healthcare Purchasing News* is a registered trademark used herein under license.

Office of publication: Periodicals Postage Paid at Nashville, TN 37209 and at additional mailing offices.

Postmaster: Send address changes to: *Omeda (Healthcare Purchasing News)*, PO Box 3257, Northbrook, IL 60065-3257.

VERIFIED AUDIT CIRCULATION

Printed in USA
Paper manufactured in USA
Soy ink made in USA

facebook.com/hpnonline
twitter.com/hpn_online
linkedin.com/company/healthcare-purchasing-news/

Increase Efficiency. Reduce Waste.

PURELL SMARTLINK™ Service Alerts allow you to proactively monitor refill status, battery life, and dispenser operation across your facility.

REDUCES SERVICE TRIPS **88%**[1]

REDUCES LABOR TIME **31%**[1]

REDUCES REFILL WASTE **14%**[1]

Never worry about empty dispensers, expired product, or dead batteries again.

To learn more, visit **GOJO.com/HPN7**

Purell SMARTLINK™

1. KCP Onvation Study, 2017.

©2021 GOJO Industries, Inc. All rights reserved. | 31935 (6/2021)

FAST STATS

COVID-19 DEMOGRAPHICS

6.0%

is the current percentage decrease of 7-day average of daily new cases to 13,997 cases

94.4%

is the decrease in number of daily cases from a January 2021, 7-day average of 251,834 cases to June 15, 2021

33,246,578

number of US cases as of June 15,221

600,047

COVID-19 deaths in the US

5

is the number of variants of concern (VOC) that the CDC is now tracking

69%

of the variant cases are B.1.1.7, the UK variant, is expected to increase 8 to 11%.

90%

of the cases in the UK are B.1.617.2, and are from variant of interest Delta. The Delta variant, first detected in India, accounts for more than 10% of all infections in the U.S, and may be responsible for more than 18% of cases in Western U.S. states.

305.7 MILLION

is the number of vaccine doses that have been administered in the US from Dec. 14, 2020 to June 10, 2021

86.5%

of people ages 65 or older have received at least one dose of vaccine and 75.8% are fully vaccinated.

64%

of people ages 18 or older have received at least one dose of vaccine and 53.4% are fully vaccinated.

Source: As of June 16, 2021 - Centers for Disease Control (CDC) https://www.cdc.gov/coronavirus/2019-ncov/covid-data/covidview/index.html

Photo credit: sdecoret | stock.adobe.com

NEWSWIRE

COVID-19 infections in U.S. emerged as early as December 2019, NIH study finds

A new antibody testing study examining samples originally collected through the National Institutes of Health's All of Us Research Program found evidence of SARS-CoV-2 infections in five states earlier than had initially been reported, announced the agency.

These findings were published in the journal *Clinical Infectious Diseases.* The results expand on findings from a Centers for Disease Control and Prevention (CDC) study that suggested SARS-CoV-2, the virus that causes COVID-19, was present in the US as far back as December 2019.

In the All of Us study, researchers analyzed more than 24,000 stored blood samples contributed by program participants across all 50 states between Jan. 2 and March 18, 2020. Researchers detected antibodies against SARS-CoV-2 using two different serology tests in nine participants' samples. These participants were from outside the major urban hotspots of Seattle and New York City, believed to be key points of entry of the virus in the US. The positive samples came as early as January 7 from participants in Illinois, Massachusetts, Mississippi, Pennsylvania and Wisconsin. Most positive samples were collected prior to the first reported cases in those states, demonstrating the importance of expanding testing as quickly as possible in an epidemic setting.

All of Us worked with Quest Diagnostics to test samples on the Abbott Architect SARS-CoV-2 IgG ELISA and the EUROIMMUN SARS-CoV-2 ELISA (IgG) platforms. For a sample to be considered "positive" by the research team, it had to have positive results on both platforms, which target antibodies that bind to different parts of the virus. Both tests have emergency use authorization from the U.S. Food and Drug Administration (FDA).

In the All of Us study, researchers looked in participant samples for a type of antibodies called IgG. These antibodies do not appear until about two weeks after a person has been infected, indicating that participants with these antibodies were exposed to the virus at least several weeks before their sample was taken. In this study, the first positive samples came from participants in Illinois and Massachusetts on Jan. 7 and 8, 2020, respectively, suggesting that the virus was present in those states in late December.

All of Us expects to release more information following further analysis and will offer participants whose samples were included in the study an opportunity to receive their individual results. The presence of antibodies in one's blood sample does not guarantee that a person is protected from the infection (has immunity), or that any such protection will last.

AHRMM21 conference moves to Nashville, new dates

The Association for Health Care Resource & Materials Management (AHRMM) has announced they have moved their annual event due to capacity restrictions recently placed a few weeks ago. The AHRMM21 Conference & Exhibition is now relocated to Nashville, TN, August 23 to 25.

AHRMM's top priority is providing their annual conference and exhibition attendees, speakers, sponsors and exhibitors with critical healthcare supply chain resources and education while following safety guidelines.

Moving the conference to Nashville will allow AHRMM to offer the same education and networking attendees have come to expect from AHRMM. AHRMM appreciates your understanding and the ability to reunite the healthcare supply chain community in-person for the first time in two years in Nashville.

Healthcare Purchasing News will be there to cover and participate in AHRMM21 and to recognize the HPN 2021 Supply Chain Department of the Year in Nashville.

For more conference information, and to register for the conference, please visit the conference website. Please contact ahrmm@aha.org if you have questions. https://web.cvent.com/event/338c4f98-df62-470e-bbfa-97047705e1d2/summary

Premier Inc. names 2021 Breakthroughs Awards winners

Premier Inc. announced the recipients of its Breakthroughs Awards recognizing industry leaders who are making a difference in healthcare.

Richard A. Norling Premier Alliance Excellence Award Winner: Atrium Health

This member exhibits deep strategic alignment with our alliance's mission to transform healthcare together; consistently delivers an exceptional level of care, improving the health of its communities; supports Premier's collaboration goals by freely sharing best practices and successes; and reduces costs and improves clinical quality and safety through broad utilization of Premier data, services and technology.

Monroe E. Trout Premier Cares Award Winner: Community Enhancement Collaboration, Inc.

The annual Monroe E. Trout Premier Cares Award honors not-for-profit community agencies, programs and health

Page 8

CLEAN

THAT KEEPS EVOLVING

CLOROX HEALTHCARE™

Your needs are evolving. So is Clorox.®

We have expanded our trusted family of products by adding the Clorox TurboPro™ Handheld and Clorox Total 360® ProPack Electrostatic Sprayers – offering new, mobile ways to disinfect spaces of all kinds. With a versatile family of electrostatic sprayers designed for use with EPA-registered Clorox® chemistries, evolution is in our nature.

Learn more at CloroxPro.com

organizations that support those excluded from, or underserved by, the mainstream health delivery system. To be considered for this application-based award, a program must successfully address a worthy, well-defined, unmet need and must operate independently from a hospital or healthcare system. Winner receives a cash prize of $100,000 from Premier.

Innovation Award Winners:

- Elekta
- GE Healthcare
- Hologic
- Olympus America, Inc.
- Siemens Healthineers

Premier's Breakthroughs Conference focuses on the future by showcasing a small number of disruptive technologies and promising innovations discovered by forward-thinking companies.

American Excess Insurance Exchange (AEIX) Risk Management Award Winners:

- Baptist Health
- PeaceHealth (won two awards)

These awards honor members that create care delivery practices to improve patient safety and enhance quality of care. Winners are selected based on care delivery practice effectiveness and potential applicability to other healthcare settings.

Supplier Diversity Award for Members Winners:

- Supplier Diversity Award Winner (Hospital Member) -- Mount Sinai Health System
- Supplier Diversity Honorable Mention (Hospital Member) -- The MetroHealth System
- Supplier Diversity Winner (Supplier) -- SourceMark Medical

The Supplier Diversity Award for Members honors health systems that have established active programs to evaluate and support minority-, women- and veteran-owned enterprises and small businesses that are a part of Premier's contract portfolio. Members are evaluated on engagement in diversity initiatives through community involvement, diversity business outreach initiatives, benchmarking and best practices sharing.

Supply Chain Excellence Award

The supply chain issues wrought by the COVID-19 pandemic were daunting for the entire healthcare industry. While our supplier community extended overwhelming support, a few of our industry partners exhibited exemplary leadership by collaborating with Premier in an extraordinary way in service to our members. To honor these outstanding companies, Premier created the COVID Supplier Awards winners for these companies: Battelle, Lowe's and Owens & Minor.

Vizient congressional briefing finds hospital leaders support post-COVID telehealth

Vizient, Inc. hosted a virtual congressional briefing, "Telehealth, Not Just a Pandemic Back-up Plan," at which panelists discussed how hospitals provide telehealth services, lessons learned regarding the increased utilization of telehealth and what is needed to continue to support providers and patients beyond the pandemic.

"As the data shows, virtual health services are something that hospitals are clearly committed to investing in post-COVID," said Saloni Jain, Vice President, Analytics and Informatics at Vizient and moderator of the panel. "Over the past 18 months the conversation amongst providers has shifted from whether telehealth should be a service offered, to overcoming barriers in the implementation of such services across a wide range of hospitals with varying levels of technologically focused infrastructure in place."

The discussion focused on hospital systems centered in both rural and urban communities, though the issues shared included common themes:

- Increased access to broadband - Regardless of location, access to reliable and affordable internet is pivotal to ensuring patients are able to access care in an efficient manner.
- Revised legislative and regulatory framework – As hospitals transition from the COVID-19 public health emergency, there is a need to maintain several of the flexibilities that have been provided in laws, regulations and licensure requirements.
- Appropriate reimbursement and payment parity – Post-COVID, there needs to be an understanding of what services and procedures will be eligible for CMS reimbursement. For a sustainable model to be put into place, there needs to be clear and equitable reimbursement.
- Focus on increasing patient connection and trust – To have a quality, digital relationship, patients must have trust. As hospitals transition towards a more high-tech approach, they should not lose sight of high-touch techniques that continue to build relationships with patients and their caregivers.

HealthTrust and CoreTrust division acquire EasiBuy

HealthTrust, a group purchasing organization (GPO) and supply chain performance company for healthcare, along with its commercial GPO, CoreTrust division, announced the acquisition of EasiBuy, a full-service reverse-auction technology company specializing in cooperative sourcing for government agencies.

EasiBuy will launch a Lead Agency Procurement Organization (LAPO) model aimed at erasing the double-digit differentials that government agencies frequently pay versus private sector GPO contracts, through negotiation of multi-jurisdictional public sector cooperative agreements.

Since 2012, EasiBuy (formerly Electronic Auction Services, Inc.), Kent, OH, has provided state and local governments managed procurement services utilizing its proprietary technology. The LAPO bid development process integrates client requirements, including vendor credentialing with EasiBuy's e-procurement technology to ensure a competitive, compliant and fully transparent experience for buyers and sellers. Contract provisions allow other public entities to "piggyback" off Lead Agency agreements and achieve economies of scale they would not receive by contracting on their own.

"Typically, public sector purchasing groups tend to have vendor-centric contracts, reflecting a price premium to what we have historically achieved in the private sector. We aim to remedy that and have coined the LAPO term to distinguish EasiBuy's approach and underscore the importance of an agency-centric, fully transparent and compliant, cooperative model", said Ed Jones, HealthTrust president and CEO.

Financial details of the agreement were not disclosed.

WHO warns increasing electronic waste harms health of millions of children

Effective and binding action is urgently required to protect the millions of children, adolescents and expectant mothers worldwide whose health is jeopardized by the informal processing of discarded electrical or electronic devices, according to a new Children and Digital Dumpsites report from the World Health Organization (WHO), announced the organization.

As many as 12.9 million women are working in the informal waste sector, which potentially exposes them to toxic e-waste and puts them and their unborn children at risk. More than 18 million children and adolescents, some as young as five years of age, are actively engaged in the informal industrial sector, of which waste processing is a sub-sector. Children exposed to e-waste are particularly vulnerable to the toxic chemicals they contain due to their smaller size, less developed organs and rapid rate of growth and development. They absorb more pollutants relative to their size and are less able to metabolize or eradicate toxic substances from their bodies. HPN

medela

Operational efficiency ✓

Quality care ✓

Managing NPWT shouldn't be an administrative headache.

For nearly 60 years, Medela has been an innovator of medical vacuum technologies, designing unique products in CardioThoracic Drainage, Breast and Enteral Feeding, Surgical Suction, Airway Suction and NPWT.

Medela offers a risk-share payment model—similar to other reusable equipment. No hidden fees or unpredictable costs. No more tracking devices or logging therapy hours. Reduce administrative burdens so you can focus on one goal—providing excellent patient care.

We make NPWT easier.

Learn more at medelahealthcare.us

Medela wordmark and logo, Invia and Invia Motion are registered in the U.S. Patent and Trademark Office. Liberty is a trademark of Medela. 1549756 A 0421 © 2021 Medela 4551520

SPECIAL FOCUS

Clinical-Supply Chain connection a bridge worth crossing together

Two clinicians demonstrate supply chain's value, respect and contributions

by Rick Dana Barlow


Photo credit: georgerudy | stock.adobe.com

For decades supply chain leaders and professionals have been advised, lectured, nudged and prodded about the need to work directly with clinicians – surgeons, physicians, doctors and nurses – as business, contractual and economic consultants and facilitators molding and shaping decisions based on clinical evidence, patient outcomes and anything else of clinical mindedness.

They weren't to dictate product selection based on costs and/or price alone but could work with clinicians on managing usage, minimizing wasteful practices and procedures and making sure the patients' best interests are at the forefront – central tenets within value analysis.

Through the years, a small minority of healthcare organizations have incorporated this philosophy into their financial and operational modeling while the vast majority continue to inch their way toward what many believe will emerge as inevitable – the clinically integrated supply chain with all the rites, privileges, parameters and definitions therein.

As *Healthcare Purchasing News* has recognized the emerging and growing participation by genuinely engaged clinicians in the supply chain process it decided to identify and salute those truly making a difference by presenting them with an award and profiling their points of view. CURE signifies Clinicians Understanding, Respecting and Engaging Supply Chain professionals. *HPN* bestows its CURE award on those clinicians who have made solid contributions to supply chain operations – activities, practices and thinking. *HPN* designed the award, which also incorporates the PURE recognition given to 10 physicians between 2016 and 2019, to further solidify and strengthen the bonds between clinicians and supply chain professionals.

Supply-chain physicians that made the grade

HPN's 2021 Supply Chain-Focused clinicians are: **Kimberly Amrami, M.D.**, Vice Chair, Department of Radiology, and Medical Director, Office of Supply Chain Management and Healthcare Technology Management, Mayo Clinic, Rochester, MN; and **Suzanne Smith, RN**, Senior Solution Advisor for Value Analysis, Lumere, a GHX company, Chicago.

In addition to an array of academic and clinical accomplishments and management excellence in radiology, Mayo Clinic's Amrami serves as an accomplished, progressive advocate and thought leader for advancing, integrating and optimizing the physician leader's role in the healthcare supply chain. Amrami routinely "collaborates at the local, regional and national levels to promote an integrated focus on quality, safety, cost and market considerations in the thoughtful stewardship of resources to ultimately impact the health of the patients and communities these provider organizations serve," as written in her nomination.

One of Amrami's latest projects involves partnering with a group of physician supply chain executives from across Vizient's Large IDN Supply Network (LISN) to establish a new national forum for clinical leaders of supply chain. The forum is designed to explore the challenges and opportunities for "physician supply chain leaders as resource stewards" in the delivery of safe, high-quality, cost-effective care.

"LISN Supply Chain Physician Collaboration (SCPC) connects physician leaders in supply chain management to create a genuine and relevant open forum for engaging," according to Amrami's nomination. "The focus is on exploring the best models for the integration of supply chain and clinical care. By sharing leading practices, reexamining traditional processes and exploring innovations, this community of supply chain physician leaders aims to meaningfully impact the combined value and quality of care provided to our patients and communities. Through the LISN SCPC, Armani helps raise awareness of the unique opportunities for physician leaders to contribute in advancing the clinical relevance – and effectiveness – of the healthcare supply chain."

Lumere's Smith dismisses the notion that any problem is too big to solve, choosing to tackle client challenges head-on rather than avoid or sidestep them. "Suzanne believes in meeting her clients where they are, seeking to understand their unique challenges and working closely with them to help achieve their aim of improving patient care while lowering the cost to deliver it," according to her nomination.

This should come as no surprise because Smith has spent the bulk of her career working just like her clients do. She possesses more than three decades of experience as a registered nurse and 13 years as Director of Value Analysis at MaineHealth, all of which enabled her to gain insights into the clinical and supply chain worlds and where they intermingle.

At MaineHealth Smith advocated for governance and built long-lasting, trusting relationships with clinicians and executive leaders united on lowering supply costs while maintaining clinical quality and achieving favorable patient outcomes.

Back in the fall of 2018, Smith left MaineHealth and joined her husband on a year-long sabbatical in Alaska's North Slope. But she turned the "respite" into a learning experience, recognizing an "urgent need for more public health professionals to serve Alaska's indigenous population [because] they had just two nurses serving more than 9,000 residents." With her healthcare and value analysis acumen, Smith quickly recognized and worked to solve the logistical challenges of getting medical supplies to the Arctic area.

Smith's experience motivated her to pursue elevating the strategic role of Supply Chain in healthcare – even before the COVID-19 pandemic hit a year later. She since has helped develop comprehensive value analysis processes and programs for several prominent healthcare systems and integrated delivery networks (IDNs) as well as a "COVID recovery" program for all Lumere clients to re-launch standard

processes and re-engage with clinicians following the clinical, financial and operational pain points of the pandemic response.

HPN's brief but pointed interviews explore how both recognized the need for and value of supply chain strategies and tactics as an integral component of effective and efficient patient care and a critical contributor to optimal outcomes.

KIMBERLY AMRAMI, M.D.

Vice Chair, Department of Radiology, and Medical Director, Office of Supply Chain Management and Healthcare Technology Management
Mayo Clinic
Rochester, MN

HPN: In context of the success with Supply Chain you have cultivated and enjoyed over the years, why do you feel it has been – and sometimes still is – so challenging and divisive for clinicians to become more directly involved in supply chain issues? What are some of the issues that clinicians may have with Supply Chain (the department) that makes them so resistant to Supply Chain advice and recommendations?

AMRAMI: I think that supply chain management (SCM) issues have sometimes been seen as "administrative" functions not requiring clinical input – and sometimes SCM professionals have not understood the added value that clinicians can bring to SCM in healthcare. It is more about a lack of communication and mutual understanding of the benefits of the engagement of both groups than anything else. Sometimes physicians have the impression that SCM is there to get the lowest price without regard to quality or clinical preferences or to push back on physician preferences for brands or specific tools. Again, this is a lack of understanding of what drives both sides of this equation – which is procuring the best tools for the best outcomes at the best price. It's important to recognize two things – that SCM in healthcare exists because physicians care for patients – and that physicians cannot care for patients without the support of SCM. You can't turn the light on in your exam room unless you have the light bulbs someone bought, but you don't need the exam room if you don't have patients to care for.

One major friction point between Supply Chain and clinicians tends to be product brand preference. Why do you believe clinicians are so hesitant – if not resistant – to change product brands if/when necessary, particularly if patient outcomes and user safety are comparable or equivalent? Conflicting perceptions? Control and influence? Something else?

Physicians are like other people – they are comfortable with what they know and may be particularly concerned with using tools they are trained to use. It takes time and effort to assess new tools, to get evidence or data about equivalence or improvement and then to train, especially when we are talking about physician preference items like catheters or surgical tools. Also, these assessments need to be made in the context of the practice you have and not the practice the vendor or others think you have or should have. We had an in-depth review of suture vendors that was broadly rolled out in our practice. Transplant surgeons had a very different need compared with neurosurgeons. It is not one size fits all, and all parties have to be prepared to put in the time and effort to really be sure that a change makes sense. In a fee-for-service model that can be a challenge. Our model of salaried physician compensation at Mayo makes it easier, but most of the time when physicians are included in these processes they participate. Cost alone cannot be a motivator – that really is a problem for physicians who are ultimately accountable for the care of their patient. If there is a failure with a new tool, it won't be the contract manager who is sued. I think sometimes SCM professionals wanting physicians to make changes don't appreciate that part of the equation.

Looking back, what do you feel has been your proudest moment in working with Supply Chain to date and why?

My proudest moments in SCM are in two categories. One, of course, is the way that SCM really stepped up during the COVID crisis to make sure that as a practice we had all of the personal protective equipment (PPE) and other tools we needed to continue to care for patients safely during a worldwide pandemic. I am in awe of the incident command processes set up in response to COVID and how well it worked. I spent some time seeing the actual command center, which had an element of controlled chaos as the team looked at non-traditional sourcing options for PPE and other supplies, but that never was visible to providers who never had to individually worry about any of this. I also saw their ability to rapidly pivot away from what had been a just-in-time approach at some of our sites to a more resilient warehousing model. In the practice we really never felt the kind of shortages that other institutions may have had and we really have the diligence and commitment of our SCM group to thank for that.

The other category of pride is less of a moment and more of an ongoing pride in how SCM at Mayo is integrated into the practice as a partner, directly in some of our high-spend departments and in general as a resource and support for all of the activities at Mayo. I am so proud to be part of an organization that is so committed to the Mayo value of the needs of the patient always coming first.

What is the most surprising thing you have learned when working with Supply Chain and why?

I had been involved in capital equipment selections but had not really worked directly with SCM before becoming their Medical Director. What really surprised me was the

AMRAMI IN REAL LIFE

What makes her lose track of time: Email! I get about 300 a day, and if I am not careful, I miss meetings trying to catch up. Since COVID hit I am getting to work a little earlier than usual to get a head start and that has been helping.

For what other people (within Supply Chain or outside) always thank her: For representing them to my clinical colleagues – a large part of my role is to be a bridge between the clinical practice and SCM. When I can make that happen it makes me feel useful and I think it benefits my SCM colleagues. I am very fortunate to work with such fantastic people who always are appreciative.

What motivates her when she's most productive: I want to say cupcakes, but really for me it is when I can sit down and really concentrate. Getting things done is a huge motivator. It's very satisfying to have things fall off of your to do list.

Best compliment she ever received: The best compliment I have ever received was from my oldest granddaughter when she was three. She told me I was her favorite person in the world! She is 15 now, and I hope she still feels the same way.

What she loves to do for others: At this stage of my career what I really love is mentoring others and helping them with their career development. That is just so satisfying, seeing people grow and learn. And I have to admit, I really, really love getting better pricing and discounts on equipment and supplies when we are negotiating with vendors. I just wish I could apply that skill to all of my shopping experiences.

Page 12 ▶

depth of subject matter expertise, especially for the people involved in contracting for physician preference items and category management. They have broad clinical knowledge and deep knowledge of the industry, [including] what is happening at other sites and what is under development or newly on the market. In many cases their knowledge equals or exceeds that of individual physicians. This is critical in order to do their work at the highest level, but also for the credibility it gives them with physicians who understand how helpful and important this is when dealing with vendors and the industry.

You work with a leading and prominent Supply Chain team at Mayo as well as a top-flight group of physician supply chain executives within Vizient's Large IDN Supply Network (LISN). What advice would you give clinicians and Supply Chain professionals outside of Mayo who potentially would like to replicate, if not emulate, the model and working relationships you experience?

The main advice I would have is to always remember that we have the same goal – to deliver the highest quality care at the best possible value. If you accept that premise then working together and appreciating the skills and viewpoints we all bring to our work naturally leads to collaboration. That and communication means that we can sometimes disagree but ultimately can get to solutions that make sense. Partnership is key – and that means developing a high level of mutual respect and trust. If we put in the time and the effort to really talk to each other we can get there. It takes commitment and authentic listening on both sides.

SUZANNE SMITH, RN

Senior Solution Advisor for Value Analysis
Lumere, a GHX company
Chicago

HPN: In context of the success with Supply Chain you have cultivated and enjoyed over the years, why do you feel it has been – and sometimes still is – so challenging and divisive for clinicians to become more directly involved in supply chain issues? What are some of the issues that clinicians may have with Supply Chain (the department) that makes them so resistant to Supply Chain advice and recommendations?

SMITH: There are three core issues I've seen most often contribute to division between Supply Chain and clinicians:

- Lack of a clear understanding of one another's motivations and priorities (assumed misalignment across supply chain and clinical programs).
- Time constraints leaves little room for collaboration or relationship-building.
- Lack of healthcare data sharing between clinical and operational systems erodes trust. Without interoperability, it's challenging to bring reliable data together to tell a relevant, compelling story so siloes are created rather than bridges.

One major friction point between Supply Chain and clinicians tends to be product brand preference. Why do you believe clinicians are so hesitant – if not resistant – to change product brands if/when necessary, particularly if patient outcomes and user safety are comparable or equivalent? Conflicting perceptions? Control and influence? Something else?

Oftentimes, a clinician's unwillingness to switch brands comes down to personal comfort level, ease of use and confidence in the product. It's also important to acknowledge that many clinicians form strong, trusted bonds with their supplier reps, which can influence their decision. Additionally, some clinicians may not believe there is strong enough evidence or data to support a decision to make a change.

Looking back, what do you feel has been your proudest moment in working with Supply Chain to date and why?

On June 18, 2003, Maine's governor signed into law a comprehensive healthcare initiative known as Dirigo Health. The Maine legislature also included a request for voluntary price restraints from providers and insurers. The bill asked all healthcare practitioners to limit net revenue growth to 3%, and hospitals were asked to restrain cost increases to 3.5% in the coming year, and to limit operating margins to under 3%. Health plans were asked to limit underwriting gains to 3%.

I started working in Supply Chain in 2005, and we took our voluntary participation very seriously as Dirigo Health took hold. We knew if we could execute on major cost savings initiatives by working with physicians, clinicians, hospital administration and suppliers, we would chart a path for MaineHealth's contribution to lowering the cost of healthcare for its communities.

Our breakthrough project was total joints (hips and knees). We started with purchase data and a savings target and armed with system-wide leadership support. We took our message on a road trip across the State of Maine, asking physicians if consolidation was possible. Surprisingly, they said yes and were happy we asked their opinion. We brought cross-functional stakeholder groups together in the same room and asked, "what are the most important elements to include in a total joint contract?" Their answers informed one of the most comprehensive contracts I've ever been a part of negotiating. We moved from line-item pricing to constructs, included specific language around support and instrumentation and kept our suppliers informed and engaged throughout the process. The result was consolidating all eight hospitals under a single agreement and achieving large cost savings that were tracked and reported on each month.

What is the most surprising thing you have learned when working with Supply Chain and why?

Physicians are easier to work with on supply chain projects than we nurses!

What did your value analysis leadership at MaineHealth and your experience in Alaska teach you about the importance of logistics and supply chain, particularly against the backdrop of the current pandemic?

I learned that the relationships you form along the way are crucial to performing well during a crisis. Establishing simple, repeatable processes with a clear rationale creates a sense of purpose and teamwork between clinicians and supply chain. Excellent planning and communication ensure that the right product is available for the right patient at the right time – even when the delivery happens via barge in the Arctic Ocean! HPN

SMITH IN REAL LIFE

What makes her lose track of time: Cooking and baking.

For what other people (within Supply Chain or outside) always thank her: That I'm always willing to help no matter how small the task or how big the obstacle.

What motivates her when she's most productive: Meaningful and fun activities/work projects.

Best compliment she ever received: I worked with an OR Budget Director for many years at MaineHealth who told me I had the rare quality of someone who could be trusted to follow through on their word and that I always had the patient at the center of every conversation.

What she loves to do for others: Make them laugh.

Delivering superior value while never compromising performance

EcoVue® Ultrasound Gel sets the standard in high quality ultrasound gel, delivering a superior experience for technicians and patients while meeting today's infection control demands, helping extend the life of equipment, and delivering bottom line value.

- **99% natural formulation**
- **Exceptional image quality & glide may reduce the potential for wrist fatigue**
- **No dyes, fragrances, parabens, or propylene glycol**

Now available in two viscosity options - both featuring our trusted 99% natural formulation.

Want to learn more?
Visit ecovue.com or call 877-302-1110
to request free samples!

EcoVue®
Ultrasound Gel

© 2021 HR Pharmaceuticals, Inc.

made in the U.S.A.

OPERATING ROOM

Sticking to sharps safety

Success points to device containment, PPE and infection control standards

by Ebony Smith

Photo credit: rumruay | stock.adobe.com

When a public health emergency strikes, such as COVID-19, it illuminates the many risks and hazards in healthcare devices, environments and practices. It also shines a light on the fortitude of hospital and other healthcare staff continuing to persevere in caring for communities through the many ups and downs of this pandemic.

Like no other major health crisis in history, COVID-19 revealed numerous vulnerabilities and challenges accessing necessary supplies, devices, equipment and personal protective equipment (PPE) for care and infection protection in hospitals and medical facilities. COVID-19 also sharpened the focus on following established and adapted standards and guidelines in safety to help reduce the spread of pathogens and infections and prevent injuries and other harm among staff and patients.

"In specific parts of the country during the pandemic, Supply Chain was unable to procure PPE for healthcare workers (HCWs)," noted Lorrie Calabrese, BSN, RN, CNOR, Clinical Specialist, Mölnlycke Health Care. "HCWs had to proceed, improvise and substitute 'best practices' to meet day-to-day needs. HCWs championed and embraced the resources they did have to try and keep their patients safe and attempt to protect themselves."

Lorrie Calabrese

Sharps devices, consequently, grew as much needed supplies in COVID-19 care and vaccine administration, points out Judy LaJoie, DNP, RN, CRNI, Chief Nurse, Director of Medical Affairs for Medication Delivery Solutions, BD.

Judy LaJoie

"Needles and syringes are ubiquitous in healthcare and, to a degree, have been taken for granted," LaJoie expressed. "The COVID-19 pandemic served as a reminder on the important role high-quality, sterile manufacturing of these devices play every day. Demand for these devices has risen as a result of clinical measures taken to stabilize COVID patients in ICUs, as well as countries around the world preparing for and delivering vaccination campaigns, all of which stressed supply chains," she added.

Collaboration with the U.S. and other governments months prior to vaccine approvals allowed BD to adapt manufacturing output to support vaccine rollout while continuing to supply the commercial market for routine healthcare, flu vaccination and childhood immunizations programs," she noted.

Injuries versus infections

How have sharps injuries affected staff, patients, procedures and treatment pre- and current COVID pandemic?

"The largest percentage of sharps injury in 2018 occurred in the operating room [44.3% EPINet, 35.1% Massachusetts Sharps Injury Surveillance System (MSISS)]," Calabrese explained. "Additionally, within the OR, surgeons experienced the greatest number of injuries (52.8% EPINet, 58-.05 MSISS). These statistics reveal the OR may be the area to scrutinize and provide our greatest impetus for change. Often stated, not necessarily embraced, education and action can remodel our future."

Additional challenges and risks in care have emerged during the current crisis, observes Calabrese.

"Standard precautions are used for all patient care in the OR, ER or anywhere there is risk of transmission from blood and body fluids," she indicated. "COVID-19 patients, sickness and deaths made the pandemic a reality. HCWs in this generation have never experienced this trepidation and dread. Fear and reality will awaken and elevate safety precautions to a higher level. The impact of COVID-19 was a heightened awareness of sharps safety because a mistake resulting in a sharp injury can change your life."

Continuing to watch out for healthcare staff safety and infection control into the future, The International Safety Center "last year released a consensus statement, Moving the Sharps Safety in Healthcare Agenda Forward in the United States: 2020 Consensus Statement and Call to Action,"[1] reported the American College of Surgeons.

The college continued, "The risks of occupational exposure to blood, body fluids, and other potentially infectious materials (OPIM) are greater today than in decades past. Increased global travel can result in broad spread of emerging infectious diseases. The emergence of these previously unknown pathogens, such as COVID-19, highlights the critical role that the safety and health of healthcare workers play and the importance of protecting them from workplace hazards. Additionally, the increased prevalence of individuals living with co-infections such as HIV and HCV, and the growing pressure for providers to see more patients in less time, exacerbates the risk of work-related exposures to disease. It is our goal to continue to focus on ways to protect healthcare personnel from harm, thus mitigating these risks."

A federal action taken on behalf of healthcare worker safety is the "Needlestick Safety and Prevention Act (NSPA) signed on Nov. 2, 2000," reports LaJoie of BD.

"Following NSPA, U.S. healthcare facilities have adopted the use of safety-engineered devices to reduce the risk of accidental needlestick injuries and the transmission of bloodborne pathogens to healthcare practitioners," she explained. "BD supported this effort prior to NSPA being signed into law and continues to advocate on behalf of healthcare practitio-

ners for the use of safety-engineered devices and proper disposal of sharps. As COVID-19 vaccination efforts took many healthcare practitioners outside of hospital or retail pharmacy settings, BD has generated new education materials on the proper use and disposal of its devices."

Calabrese envisions growing opportunities for improvements in these incidences in care settings.

"In my opinion, awareness and dedication to sharps safety is lacking throughout institutions," she expressed. "Now, in 2021 we require a new impetus on safety. Leadership has to fill in the gaps, engage clinicians, manufacturers, and professional and accrediting associations to not only advocate for safety but to inspire HCWs to foster a culture of safety throughout healthcare facilities. There are a litany of best practices, products and technology available, however, HCWs must be compelled to actually use them."

Ramping up disposal

How have clinical, infection prevention or safety leaders handled sharps safety in their facilities?

A drive toward getting more shots in arms in communities means an increased need for disposal of sharps supplies.

"A shortage in the supply of Food and Drug Administration (FDA)-cleared sharps disposal containers may occur during the COVID-19 mass vaccination campaign or as a result of other causes. Healthcare facilities and COVID-19 vaccination sites must use sharps disposal containers that meet Occupational Safety and Health Administration (OSHA) Bloodborne Pathogens standard requirements to dispose of contaminated needles and other sharps,"[2] stated the Centers for Disease Control and Prevention in its guidance.

The agency added, "Conserve your FDA-cleared sharps disposal containers to help avoid a potential supply shortage. If FDA-cleared sharps disposal containers are unavailable, then consider using alternative containers that meet the OSHA requirements after checking your state's specific disposal requirements at SafeNeedleDisposal.org and discussing disposal options with your medical waste vendors." [2]

The FDA explained it "has evaluated the safety and effectiveness of these containers and has cleared them for use by health care professionals and the public to help reduce the risk of injury and infections from sharps. FDA-cleared sharps disposal containers are made from rigid plastic and come marked with a line that indicates when the container should be considered full, which means it's time to dispose of the container."[3]

With regard to alternative sharps disposal containers, the FDA stated, "If an FDA-cleared container is not available, some organizations and community guidelines recommend using a heavy-duty plastic household container. The container should be leak-resistant, remain upright during use and have a tight fitting, puncture-resistant lid, such as a plastic laundry detergent container."[3]

Raising bar on safety

What are the best practices for preventing sharps injuries, pathogen contamination and transmission and infections in care?

LaJoie states that "BD recommends the following to help ensure the safety of healthcare practitioners following delivery of a skin injection:

- Activate the safety mechanism immediately following the administration injection
- Keep handling to a minimum
- Discard sharps at point of use into an approved sharps container
- Ensure approved sharps containers are located in a safe position
- Seal sharps containers as soon as the contents reach the indicated fill line and dispose of them according to local policy
- Report needle stick injuries
- Adhere to local policy and procedure, as well as health and safety requirements
- Follow correct use and application of safe medical devices."

Calabrese highlights clinical practices to help decrease the potential for incidences of surgical site infections (SSIs).

"Going back to COVID, our world revolves around bacteria and viruses," she stressed. "To combat bacteria, we administer antimicrobial prophylaxis prior to the surgical incision. The risk from a virus, for example, Hep B or C, can be transferred from a needlestick or suture needle penetrating a glove(s)."

She continued, "OR staff can reduce the risk of exposure by 87% when double gloving is used. In another study, the volume of blood on a solid suture needle is reduced by 95% when the needle passes through two gloves/glove layers, reducing the viral load in the event of a pathogenic contamination. National AORN, AST and ACS all agree, the best practice to protect you and your patient is to double glove with a complementary underglove."

Additionally, Calabrese shares, "Occupational health and safety professionals utilize a system of prevention measures known as the Hierarchy of Controls. This hierarchy is a new element to address the importance of complete safety, first and foremost to *eliminate the hazard whenever possible*…if this is not feasible, implement work practice engineers.

The umbrella of controls includes:

- Correctly wear PPE.
- Choose the right gauge and length of a needle and evaluate suture needles and alternative methods of skin closure devices where appropriate.
- Increase the use of scalpels with retracting blades/handles and implement no hands passing and neutral zones to protect the surgical team members.
- Utilize correct blood and specimen techniques and increase compliance with disposal of these devices.

If HCWs eliminate the risk of pathogen contamination to the best of their ability, this will transcend to their patients."

Further, she notes, "The Joint Commission and OSHA advocate for an Exposure Control Plan beginning with the use of universal/standard precautions. OSHA also champions this plan as a *living document*."

As COVID-19 vaccinations are on the rise, those administering the shots also should take precautions for sharps safety and infection control.

"Needlesticks and the potential exposure to bloodborne pathogens pose a risk during COVID–19 vaccinations in both traditional healthcare settings and pop-up vaccination sites. Vaccinators should follow OSHA's bloodborne pathogens standard [OSHA 1992] to prevent needlestick/sharps injuries,"[4] advise medical specialists on the National Institute for Occupational Safety and Health Blog.

The specialists continue, "At a minimum, ensure that all vaccinators receive training in the following:

- Bloodborne Pathogens Standard (29 CFR 190.1030)
- PPE
- Sharps disposal
- Definition of needlestick injury
- Injury reporting
- Sharps injury log."

BD's LaJoie highlights "two driving factors ensuring safe administration of COVID-19 vaccinations with patients – clinical expertise and the use of safety-engineered devices.

As part of our vaccination response efforts, BD provided resources to help ensure healthcare communities globally have the right training tools and support on injection techniques to implement their campaigns," she continued. " This training and education is critical to help ensure that the various devices provided are used properly in vaccine administration, especially as we saw many former and retired healthcare workers returning to the field to help. Additionally, using safety needles

Page 16 ▶

designed specifically to protect clinicians from needlestick injuries helps to ensure safe injection practices."

Looking ahead, collaborative input on sharps devices, injury reviews, training and education will be needed to maintain safety in the growing medical care field and workforce.

"According to the Bureau of Labor Statistics (BLS), the healthcare sector is expected to add 2.4 million new jobs between 2019-2029 (Bureau of Labor Statistics, 2020a). Clearly, this population of workers will continue to be at risk,"[1] according to the International Safety Center.

The center added that for healthcare facilities, "It is recommended that:

1. Leadership, management, and frontline staff work cooperatively to select devices with sharps injury prevention (SIP) features and develop sharps safety standards and practices that are consistently implemented and followed in all clinical environments.
2. There is annual documentation for any opt-out policies that detail the rationale for not using a safety engineered device (i.e., compromises patient or worker safety, or clinical outcomes) or intervention, as well as any alternate procedures or practices to mitigate sharps injury risk.
3. There is an annual review of the Sharps Injury Log (without personal identifiers) that is shared with all relevant personnel and a review of current devices and procedures is completed, including a review of new commercially available, safer devices.
4. There is consistent involvement of frontline healthcare workers in the selection and evaluation of devices with SIP, and regular and systematic assessment of devices currently in use.
5. Feedback from frontline staff is provided to manufacturers, kit packers, and distributors to provide prepackaged surgical and procedure kits that include devices with SIP features.
6. Training and education are provided on an annual basis for all potentially exposed workers on the appropriate use and disposal of devices."[1]

BD's LaJoie predicts ongoing improvement in device safety and care.

"The adoption of safety-engineered devices, including needles, has been consistently increasing for years," she said. "As awareness of the negative consequences of needlestick injuries increases, the trend for adoption in alternate site segments will accelerate and allow for patient and clinician safety to be enhanced."

Calabrese additionally foresees expanded practice of needleless treatment and safety in care.

"Needle-free drug delivery devices are state of the art and market growth continues to increase during 2020 and 2024," she indicated. "Market trends for research, funding and government initiatives are on the rise. (Technavio research) Robotics assist the surgeon and the surgical team in various ORs around the country. With specialized devices comes additional risks associated with technology; it would seem HCWs will always require protection from something!" HPN

mmic™
MEDICAL SYSTEMS
LEADING MOBILE MEDICAL FACILITIES PROVIDER

OUR SERVICES

STERILE PROCESSING
SURGICAL FACILITIES
WATER QUALITY
ENDOSCOPY FACILITIES

mmic™ Mobile Sterile Processing System

KEY DIFFERENTIATORS

+ DEDICATED STERILE PROCESSING AND DECONTAMINATION FACILITY
+ REAL-TIME MONITORING OF MULTIPLE WATER QUALITY PARAMETERS
+ INTERNAL LAYOUT CONFIGURATION
+ SUPPLEMENTAL ADD-ONS
+ TURNKEY WATER QUALITY MAINTINANCE
+ INTEGRATED EQUIPMENT FLEXIBILITY
+ ALL INDUSTRY CERTIFICATIONS
+ MULTI-ZONE FACILITIES AND CONFIGURATIONS

CONTACT US
info@mmicmedical.com | mmicmedical.com| 1.800.748.2322

References:

1. International Safety Center Releases Consensus Statement on Sharps Safety, https://www.facs.org/about-acs/consensus-statements/sharps-safety

2. Strategies for Sharps Disposal Container Use During Supply Shortages For Managers and Purchase Agents, https://www.cdc.gov/vaccines/covid-19/downloads/strategies-sharps-disposal-container.pdf

3. Sharps Disposal Containers, https://www.fda.gov/medical-devices/safely-using-sharps-needles-and-syringes-home-work-and-travel/sharps-disposal-containers

4. Preventing Needlestick Injuries at COVID–19 Vaccination Sites, https://blogs.cdc.gov/niosh-science-blog/2021/03/02/needlestick-prevention/

Biogel® Delivers Möre

PROVEN PERFORMANCE
- Fewer in-use glove failures[1]
- Utilization savings[2]
- Reduced infection risk for patients[3]

CLINICIAN SAFETY & SATISFACTION
- Puncture Indication System
- O.R. efficiency with standardization[2]
- Preferred fit, feel and comfort[4]

PARTNERSHIP
- Utilization reviews
- Implementation support
- Clinical education

We've looked long and hard at our puncture indication system, so you don't have to.

Only 10% glove punctures are detected during surgeries, putting you and your patients at risk of bloodborne infections and increased costs.[5] Each such occupational exposure to blood and body fluids through needlestick and sharp object injury costs an estimated $4,838 to manage.[6]

That's why we developed the patented Biogel Puncture Indication® System™ – proven to provide a clear, fast and large puncture indication.[7] It increases breach detection from 10% to 97%.[8]

Ready to capture more Tötal Value?

Scan QR code to learn how.

Improved glove breach detection — that is one way Biogel gloves deliver TÖTAL VALUE

References: 1. MHC Study #G09-005 **2.** Utilizing the Lean Process in Surgical Glove Standardization, Samuel E. Sullivan RN CNOR, Published Poster, AORN 2020 **3.** Data on File, MHC-2018-37408 **4.** Manufacturing Data on File, MHC **5.** Timler D, Kusinski M, Iltchev P, et al. Glove failure in elective thyroid surgery. A prospective randomized study. International Journal of Occupational Medicine and Environmental Health. 2015;28(3):http://dx.doi.org/10.13075/ ijomeh.1896.00428 **6.** O'Malley EM, Scott RD 2nd, Gayle J, Dekutoski J, Foltzer M, Lundstrom TS, et al. Costs of management of occupational exposures to blood and body fluids. Infection control and hospital epidemiology. 2007;28(7):774-82. PubMed ID: 17564978 **7.** Evaluation of Indication Performance of Biogel Synthetic Double Gloving Combinations versus Competitors' Double Gloving Combinations. 2019. Data on file. **8.** Mischke C, et al. Gloves, extra gloves or special types of gloves for preventing percutaneous exposure injuries in healthcare personnel. Cochrane Database Syst Rev. 2014 [cited 14 Sep 2017];(3):CD009573. URL: doi:10.1002/14651858. CD009573.pub2.

Mölnlycke®

The Mölnlycke and Biogel trademarks, names and logo types are registered globally to one or more of the Mölnlycke Health Care Group of Companies.
Distributed by Mölnlycke Health Care US ©2021 Mölnlycke Health Care AB. All rights reserved. MHC-2021-79429

Reevaluating reprocessing workflow

With ORs reopening, SPDs must define their "new normal"

by Kara Nadeau

Photo credit: Roger | stock.adobe.com, Photo credit: Kostiantyn | stock.adobe.com

With patient case volumes rebounding from pandemic-related slow-downs, Central Service/Sterile Processing & Distribution (CS/SPD) departments are once again working diligently to safely and quickly turn around instruments and devices for use in the operating room (OR) and other procedural areas.

But it is not back to business as usual. Hospitals are struggling from significant financial losses and CS/SPD teams from staff shortages due to furloughs and layoffs over the past year. Forced to do more with less money and fewer people, CS/SPDs are taking a hard look at the efficiency of their operations, how they measure it and how they can improve it.

Staff shortages straining

John Kimsey, Vice President, Operations, STERIS Instrument Processing Solutions, describes how many CS/SPDs have struggled to bring back experienced department staff as elective surgeries have resumed.

John Kimsey

"During the pandemic, some hospitals allowed departments to lose staff through attrition and are now scrambling to refill those positions. While the workflows are the same, the backlogs have grown."

Gregg Agoston, Vice President, Business Development, SPD Transformation Services, SpecialtyCare, notes how some CS/SPDs have been forced to turn to agency (traveler) CS/SPD professionals as a way to staff their departments. But this talent comes at a premium price due to the expense of travel (hotel and associated travel expenses) that must be absorbed in the cost of the technician.

Gregg Agoston

Those departments that bring on new, inexperienced staff members struggle to train them at a time when case volumes have been rising, which presents a major drag on productivity, according to Agoston. Adding to the burden is frequent CS/SPD staff turnover as a result of low wages and a competitive job market.

"New staff come with training needs, placing more stress on educators and existing staff," said Agoston. "Many hospitals report that new staff is often lured away to clinics, surgery centers or other employers outside of healthcare due to better pay. Sometimes 25 cents per hour is all it takes to lose an employee. Hospital staff have commented that they are tired of spending time training new staff who will 'last a year or less in the department.'"

"It is yet to be seen if this labor shortage is temporary or the 'new normal,'" he added. "If it is the new normal, then hospitals will need to do a deep dive to solve the root causes preventing them from attracting and retaining qualified staff. In the interim, this disruption in staffing is negatively affecting workflows and has the potential to negatively affect patient outcomes."

Kimsey adds how the tremendous financial burden of the pandemic on many hospitals has forced them to focus their recovery plans on "pure financial efficiency," such as full-time employees (FTEs) per surgery case or FTEs per instrument tray processed.

"These types of efficiency measurements and definitions rarely take into account the clinical requirements, such as following instructions for use (IFU), that are required to ensure patient standard of care," Kimsey indicated. "Efficiency is best described as meeting clinical needs first while minimizing operational waste. This way, SPD managers can set the baseline of labor requirements based on IFUs and clinical needs and then measure how well they are performing to that baseline."

How SPDs measure efficiency

The term "efficiency" can mean many different things in the CS/SPD realm. Not surprisingly, this translates to departments measuring process efficiency in various ways.

"Efficiency is a core responsibility of anyone in a healthcare leadership role," said Juan Ramos, BSBA, CRCST, CIS, CHL, LGBC, CSD Lead Consultant, Aesculap. "The challenge is when CS/SPD managers struggle to establish a correlation between actual and unrealistic expectations."

Juan Ramos

"We frequently see CS/SPD departments measuring efficiency utilizing obsolete models that don't reflect the reality of their departments today," Ramos added. "For example, we still see CS/SPD efficiency measured by surgery minutes. However, surgery is only a representation of the work carried out in the department. Efficiency without accurate data can be the same as inefficiency."

Available trays

Since elective surgeries have resumed, Todd Brigance, Director, IWS Sales & Operations, Getinge, says he has seen an increased focus on available trays, meaning how many surgeries the operating room (OR) can plan of a specific type without risking delays or cancellations.

Todd Brigance

"Efficiency is certainly a top priority as CSDs want to get the most throughput without sacrificing quality," said Brigance. "If there are bottlenecks in the process, this could lead to delayed or canceled OR

procedures due to instrumentation not being readily available, which in turn is a major loss of revenue for the hospital and or facility."

Tray turnaround time


Ross Polston

There are several key metrics critical in understanding department efficiency, explains Ross Polston, National Manager of Planning & Design, Belimed.

"Tray turnaround time (arrival to CS/SPD through process to sterile storage) is arguably the most important data point to assist with instrument inventory planning and case scheduling," he stated. "Scan stations and use of an instrument tracking system are critical for understanding this metric. Most departments without instrument tracking rely heavily on case delays, add-ons, and other statistics to measure efficiency."

Brigance describes the ability to time stamp each scanning point in the process through T-DOC, an instrument tracking system that generates data and reports for efficiency monitoring and measurement.

"Reports can show where the bottlenecks might be and therefore issues can be addressed and hopefully resolved," he explained. "In addition to efficiency, quality can also be tracked as many facilities will document any issues with the sets that may have happened either in SPD or after use in the OR," he added.

"SPDs are constantly striving towards a more efficient department," said Polston. "Departments are now more than ever focusing on metrics (KPIs – key performance indicators) to help understand current performance and opportunities for improvement. These metrics are compiled using processing volumes and processing times calculated by analyzing scan times for instrument sets throughout the process (arrival to SPD all the way through sterile storage). Instrument tracking systems are critical for obtaining accurate date to provide these metrics."

Number of items sterilized

Agoston points to the number of items sterilized as another metric CS/SPDs use to track efficiency. But he says the downside of this approach is the variation in how items are counted.

"Some track items sterilized, but the challenge is that each set or peel pouched item counts as one," said Agoston. "Some sets can contain over 100 instruments. A peel pouch contains one instrument. Both are counted as one. While there may be some benefit to watching the count of sterilized items over time, it does not accurately represent the work performed."

Other departments track the number of instruments processed, but the problem with this approach is that not all instruments processed are recorded in the instrument tracking system, as Agoston explains:

"For instance, loaner instruments are often delivered for Ortho/ Neuro/ Spine surgery without a count sheet. Most hospitals track these sets as a count of one, when in fact many of these sets contain 30 to 100 instruments or more. In a hospital with heavy volume of Ortho/Neuro/ Spine procedures, measuring instrument processed will not be representative of the work performed."

Connecting time to volume

Kimsey notes how he has seen "good improvements" over the years in CS/SPDs becoming more adept at measuring efficiency. He explains how instrument tracking systems have enabled departments to calculate efficiency in terms of time to volume, which is a much more accurate measurement compared with other metrics.

"While historically tray volumes were reported as 'productivity' or 'efficiency' metrics without a correlation to labor spent, today instrument tracking systems provide data that enables CS/SPDs to correlate time to volume and thus create true efficiency calculations," he stated. In the end, some departments' final efficiency calculations come from their finance department, in terms of hours worked per item processed, while other departments focus on internal processes, such as trays assembled per hour per technician."

Kimsey says most hospitals have made the investment in instrument tracking systems over the last 20 years, which has helped efficiencies tremendously. He adds that the adoption of lean methodologies, such as visual management, 5S, standard work and leadership routines have also been "most useful and impactful."

"CS/SPDs are realizing the more they standardize their operations and provide tools to their technicians, the more efficient they are," he added.

Power of data usage

Data on CS/SPD efficiency alone is "worthless," according to Ramos. True value is derived when teams integrate data from instrument tracking and OR scheduling systems and use it to effectively manage workflow.

"Using the correct algorithm, we can forecast staffing, capacity and many other measurable components to optimize and synchronize Sterile Processing and Surgery operations," he commented. "We have seen more and more SPD leaders access data from multiple systems to help them drive efficiency and create a more seamless approach to an effective workflow."

Aesculap powered by Ascendco recently introduced a solution to the U.S. market to address this need. The companies align Aesculap Surgical Asset Management expertise and solutions with Ascendco aggregate data and provide healthcare systems with a workflow based on that data.

Factors that boost efficiency

Once a CS/SPD determines how it will define efficiency, the next step is putting into place a plan to streamline operations while maintaining, or even improving, quality and safety. In many cases it comes down to a combination of people, processes and technology.

OR collaboration and integration

The workflows of the CS/SPD and OR are directly linked – with the OR's procedures dictating which instruments and trays must be available for use on any given day. Therefore, it is critical that CS/SPD and OR teams closely collaborate and communicate on requirements and expectations.

Interfacing the CS/SPD instrument tracking system with the OR scheduling system is one way to improve coordination between the two departments, explains Brigance.

"When these tracking systems are interfaced with an OR scheduling system, the SPD staff knows exactly what instrument sets are needed for upcoming cases and what still needs to be picked and delivered. Furthermore, T-DOC sterile supply management solution can automatically prioritize instrument sets based on availability giving the SPD staff a clear picture of what sets need attention first."

CS/SPD staff education

CS/SPD staff shortages related to the pandemic have forced many departments to hire new and inexperienced technicians, which puts greater strain on department efficiency. As a result, there has been increased demand for STERIS education offerings across the country, according to Kimsey. To help with education efforts, the company has launched a new IFU software that "provides our employees the information they need when they need it," he added.

"The software focuses on decontamination and provides IFU-based information to the technician at the sink," he said. "Similar to a fast-food order entry screen showing the orders in process and time elapsed, the software provides step-by-step guidance to

Page 20

cleaning the instruments with built-in countdown timers. No more having to rely on your memory to know what to do."


Lars Thording

Regarding IFU compliance, Lars Thording, Vice President of Marketing and Public Affairs, Innovative Health, says he has received reports from multiple clients across different regions of the U.S. that the Joint Commission is "cracking down" on CS/SPDs that can't accurately track how many times a given electrophysiology (EP) cable has been used. *See sidebar: Efficient electrophysiology cable sterilization can land hospitals in hot water.*

"The focus of the Joint Commission seems to be on confirming SPD cleaning methodology is standardized across device categories and follow the appropriate instructions for use," said Thording. "We do not know what has caused this focus, but the introduction of more single-use EP cables that cannot be sent to the SPD could be a contributing factor. Hospitals are just not used to distinguishing between different EP cable types.

"CS/SPDs must ensure their staff members can actually identify individual cables and treat them according to their specific use instructions," he added. "If not, there is a risk that single-use cables are reused several times, cleaning is inadequate or no testing is conducted."

Ramos recommends CS/SPD leaders provide their staff members job aids, pictures and diagrams, which he describes as "great tools" to support staff in different process steps.

"A comprehensive and precise count sheet is essential for the consistent completion of the set with no variance," Ramos added.

Training CS/SPD technicians as specialists in specific procedural areas and related instrumentation can boost process efficiency both in the CS/SPD and the OR, according to Agoston. He notes that the most common areas for specialization are arthroplasty services and minimally invasive surgery, including gastrointestinal (GI) endoscopy.

"The number one tool to improve efficiency in SPD is the introduction of specialization. The challenge is in breaking the old standard that everyone must be trained and perform all SPD functions. Specialists trained to process the instruments and assist with OR set-up, take-down and troubleshooting ensure that the OR is operating at its peak of efficiency. SpecialtyCare can provide assistance with transforming your SPD into a highly efficient operation."

To assist with OR efficiency measurement and improvements, SpecialtyCare offers a software solution called OR Insight, which provides analysis on key OR performance metrics, including OR usage, block scheduling and cost of supplies and implants, down to the surgeon level. It can be used in conjunction with several instrument management software programs.

Automated equipment

In an effort to increase efficiency, standardize processes and improve both patient and staff safety, more and more CS/SPDs are implementing automated processing equipment. By minimizing manual labor, departments can reduce variation (which increases quality), streamline workflows and reduce the risk for staff injuries.

"Equipment automation is another critical component for efficiency improvement to keep the process moving and improving instrument turnaround times," said Polston. "One of the more exciting technologies has been the addition of automation to the washers and sterilizers."

As Polston explains, sets are getting complex and heavier; therefore, when CS/SPD staff members manually push washer and sterilizer transport carts they face greater risk for lower back and hand injuries. Washers and sterilizers that feature automated loading, unloading and transport relieve them of strenuous, physical steps in the process.

"In today's ever evolving SPD, the ergonomic challenges the clinicians experience are an area of concern," he said. "Workplace incidents negatively impact the staffing of the SPD and can have a detrimental impact on meeting productions needs of the department. Having these ensure the instruments keep moving to meet production needs in a safe and efficient means has reduced injuries."

Workspace design

Ramos recommends that manufacturers' IFUs be consulted during the design and planning of workspaces to ensure technicians can safely reprocess surgical instruments. To help protect staff from injuries, he recommends sets be limited to under 25 pounds and storage locations organized based on set weight, with heavier items

Page 22

Efficient electrophysiology cable sterilization can land hospitals in hot water

Balancing effective and safe reprocessing of reusable instruments and devices with the pressure for efficiency is a significant struggle for Central Service/Sterile Processing & Distribution (CS/SPD) department professionals. Joint Commission compliance is at risk when staff members are pressured to streamline or skip steps necessary to deliver a clean and sterilized item into the hands of clinicians.

Lars Thording, Vice President of Marketing and Public Affairs, Innovative Health, says reusable electrophysiology (EP) cables are a good example of items that require a critical eye and attention to detail when reprocessed in accordance with Joint Commission standards. He explains how reusable cables come with instructions on how to clean and make ready for another use, but with hundreds of different cables that look alike, CS/SPD teams face challenges in identifying each type of cable and its individualized cleaning methods.

"Most cleaning instructions are very broad, as in, 'The cable can withstand cleaning with soap solutions or alcohol,' while others are more extensive and specific; they may require special treatment of the connector or even testing before reuse," he said. "Add to this that EP cables come with an FDA-regulated maximum number of times the cable can be used."

Most CS/SPD departments don't have the capacity or work routines to ensure cables are cleaned exactly to instructions, that they are tested, and that the number of uses are counted, according to Thording.

"There is an unfortunate trade-off between efficiency and compliance with Joint Commission rules here, and frequently, efficiency becomes the guiding principle," he added. "Recently, we have heard from a number of our hospital partners that the Joint Commission has honed in on these practices and demanded change."

By outsourcing the reprocessing of items that require complex work routines, such as EP cables, a CS/SPD department can remain efficient in its operations while adhering to Joint Commission rules, Thording explains.

"Reusable EP cables can legally be reprocessed by the Central Sterile department, but it comes with regulatory risk," he stated. "We have seen more and more hospitals sending their EP cables to third-party reprocessing companies that have the capacity to accurately identify, serial tag, clean, test and sterilize these cables. Moreover, serial tagging allows for accurate count of number of uses. This helps the hospital remain efficient, yet also comply with Joint Commission rules and avoid the operational disruption of having to replace cables during procedures."

OPERATE WITH GREATER PRECISION

Who Benefits from an Optimized Periop?

HE DOES.

Quality surgical instrument readiness is critical to patients like this little guy.

Our experts can help ensure your team has access to the tools they need, when and where they need them, all without adding to your staff's workload.

We'll apply data-driven workflow analytics to optimize your instrument usage and streamline your sterile processing workflows so that you are prepared to support surgery.

Start operating with greater precision. Visit **aesculapusa.com/greaterprecision** to learn more.

AESCULAP®

Aesculap, Inc. - a B. Braun company

stored waist high and lightweight items on top and bottom shelves.

Height adjustable processing sinks, workstations and assembly tables that adjust to the various heights of the employees are growing in popularity as well, as departments seek new solutions for improved ergonomics.

"These allow the technician to adjust the height of the work area to fit their needs. Ask anyone who has been bent over a sink decontaminating instruments all day and they will tell you that these adjustable height workstations are very beneficial," noted Agoston.


Mary Olivera

According to Mary Olivera, President/CEO, OSPECS Consulting, arranging and organizing workstations can efficiently reduce steps, optimizing the time needed to assemble a set.

"All materials needed such as integrators, tamper proof locks, filters, replacement instrumentation, etc. should be organized in the order which they are used and within arm's reach," she stated. "Mark the locations to be alerted when something is out of place. Standardizing all workstations with the same set up not only will increase efficiency but also reduce instrument set assembly errors."

Error reduction

Reprocessing instruments right the first time saves time and labor downstream. As Agoston explains, events such as holes in wrap, missing instruments, dirty instruments, missing sterilization integrators and sterilization failures add work for CS/SPD professionals, can result in case delays in the OR and put patient safety at risk.

Agoston stresses the need to accurately track these events so that the CS/SPD can address these issues and make continuous improvements to its processes.

"These unrecorded events can have a substantial negative impact on efficiency of the OR and SPD," he said. "Real-time event information is critical to a highly functioning SPD. You can't solve a problem that you do not know you have. Having a comprehensive and accurate event reporting system is a critical need for all facilities treating patients. Every event, whether or not it impacts the patient, is important to track so that problem areas can be identified and corrected."

Service programs

Keeping equipment in the CS/SPD up and running is another critical factor to maintaining high efficiency and productivity levels. Understanding the correlation between properly functioning washers, sterilizers and other key machinery and prompt instrument turn-around times, a growing number of CS/SPDs are making investments in preventive maintenance (PM) programs.

"Equipment service programs are shifting to provide maintenance on a frequency determined by equipment usage (cycle counts versus arbitrary frequency) to improve equipment uptime," said Polston.

How to get leadership buy-in

For hospitals struggling with the financial consequences of the pandemic and efforts focused on revenue generating areas, including the OR, it might seem like a tough time for the CS/SPD to secure resources for improvements. Educating hospital leaders on the critical link between effective and efficient CS/SPD operations and successful surgical procedures can help pave the way for investments in the department.

"Healthcare leadership is constantly challenged to improve workflows, eliminate waste, reduce costs and improve efficiency," said Ramos. "Post-pandemic, that need is more evident than ever, as leaders realize the need to align workflows based on solid data points."

In an effort to gain support for its efficiency and quality improvements, the CS/SPD team at Fairfield Medical Center, a 222-bed, nonprofit, 501(C)3 hospital in Lancaster, OH, brought the hospital's chief executive officer (CEO), chief operating officer (COO), chief nursing officer (CNO) and head of epidemiology and infection control into the department for a hands-on lesson in tray assembly. The effort was led by Steven Teaford, Sterile Processing Manager, SpecialtyCare, who provides sterile processing consulting services to the department.

They set each member of the leadership team down in front of an instrument set and gave them basic instructions on assembly. About 99% of the time the leader would get to the third instrument in the set and raise an issue, according to Teaford, whether it was a missing or mislabeled instrument, or one that appeared compromised in some way. In many cases, when a member of the CS/SPD team sought out a replacement item in storage there was no item available, or the back-up item was also in poor shape.

"A lot of good things have happened since we brought them down here to actually see the struggles we have," noted Teaford. "Our credibility among leadership has increased, so when we ask for something they understand that it is something we truly need." HPN

See sidebar for details on Fairfield Medical Center's CS/SPD efficiency improvements.

A lesson in gaining leadership support for efficiency improvements

Post-COVID, Fairfield Medical Center has gained leadership buy-in for CS/SPD improvements that are increasing both the efficiency of its operations and the quality of instruments delivered to procedural areas. These include:

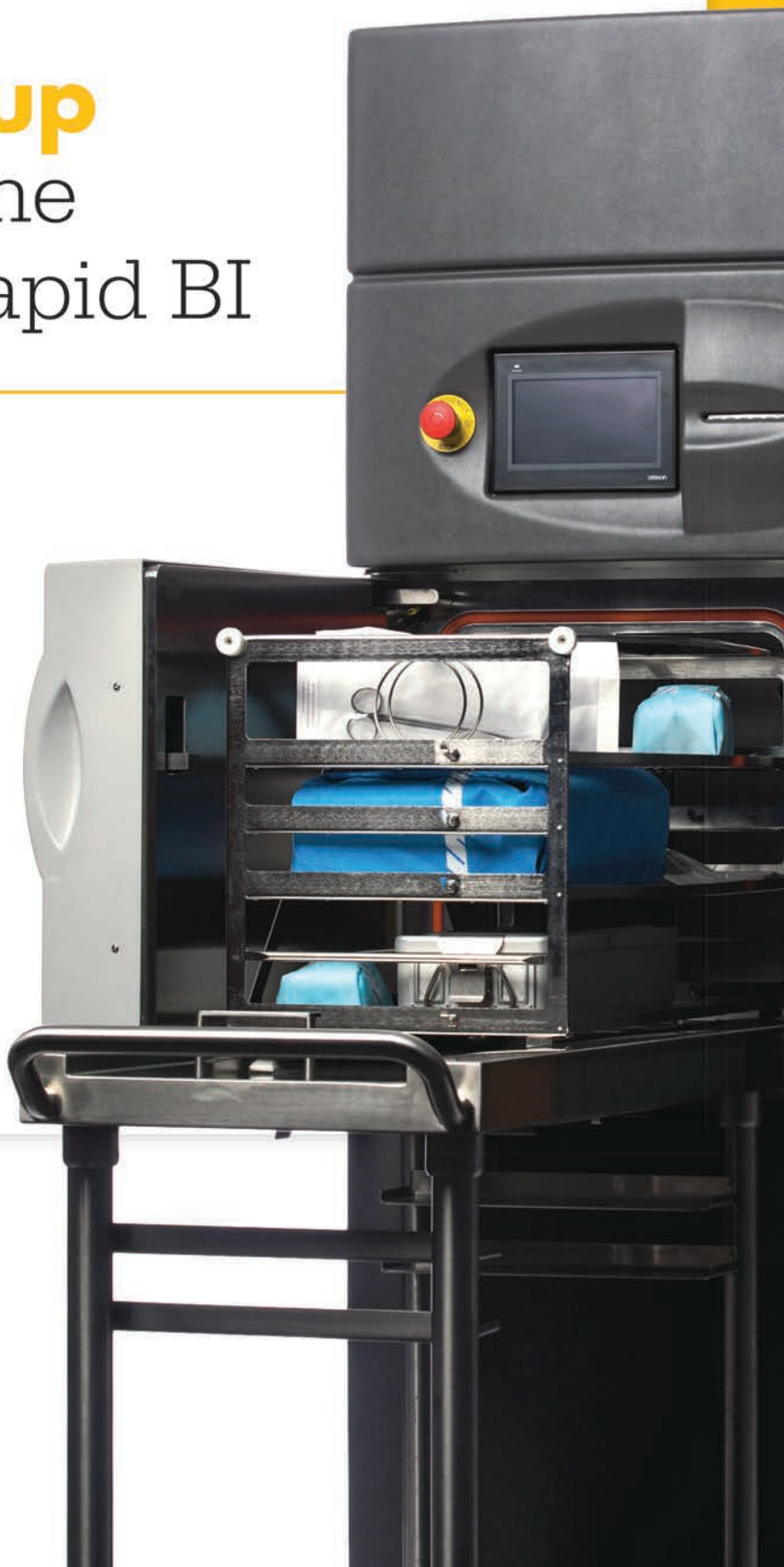
- Improved water quality to protect instruments and equipment from damage (e.g., scale formation, corrosion), staining and discoloration. Keeping these assets functioning and available reduces downtime and the extra time/labor required to switch compromised instruments out of trays.
- Engagement with a sterilization wrap recycling provider where the operating room (OR) staff places used wrap in a designated container, rather than sending it to the CS/SPD for disposal. Saved time and labor in the CS/SPD since they no longer are taking out the OR's "trash."
- New hire education program, which includes a certification class with hands-on training on instrument handling, cleaning, assembly and sterilization, and mentoring by an experienced staff member. Boosts efficiency by enabling new technicians to get up to speed quicker on the right way to process instrumentation. It has also decreased the tray assembly error rate down to less than 1%, minimizing the need for time-consuming rework.

stryker

It's time to mix it up now with the Sterizone rapid BI

The future of low-temperature sterilization

- ☑ Ability to process three robotic endoscopes per load compared to one*
- ☑ Unparalleled mix and match load capabilities*
- ☑ 75lb max load capability versus 21.4lb**
- ☑ Single sterilization cycle for all instrumentation
- ☑ Dual sterilant with hydrogen peroxide and ozone
- ☑ Now with 30-minute rapid biological indicator readout



*Compared to STERRAD 100NX with All Clear technology and Steris V-PRO maX 2

**Compared to Standard cycle for the STERRAD 100NX with All Clear technology

A surgeon must always rely on his or her own professional clinical judgment when deciding whether to use a particular product when treating a patient and must refer to the instructions for use before using any Stryker product. Stryker or its affiliated entities own, use, or have applied for the following trademarks or service marks: Sterizone and Stryker. All other trademarks are trademarks of their respective owners or holders.

D0000084441 Rev AA | Copyright © 2021 Stryker

SUBMIT YOUR QUESTIONS:
editor@hpnonline.com

ANSI/AAMI standard anticipated this summer, don't wipe out on workstation cleaning

by Stephen Kovach

Q I heard that ANSI/AMMI ST 91 is going to be published this summer. Is this true?

A This standard was just put out for public comment (May 15, 2021). So, barring any major public review issues, it should be issued sometime in July or August. We all are waiting for these new standards to help us get to "best practice," in the care of all patients who undergo any type of endoscopy procedure.

Q Where I work, some people have started to wipe their workstation (table) in the assembly area. What are your thoughts on this practice?

A I am for this practice, but staff needs to understand why they should do this and know the correct way of wiping work surfaces.

As with anything, my position is that having some staff do something and other staff do something different opens the door for confusion in a department. I feel the department should put in place a policy for what staff should do concerning cleaning their workstation surface. The policy should be reviewed by a team to make sure it is consistent with any other policy within the medical facility.

The actual process of decontaminating a surface is the same for both cleaning and disinfection. Wiping should never be carried out in a circular motion, as this causes the wipe in its dirtiest state to be passed over an area which has just been cleaned. This point needs to be reinforced with staff, as a circular wiping pattern is the most comfortable and convenient but not the "best practice."

The correct technique is to wipe toward you in straight, horizontal lines each time overlapping the previous one by 10 to 25%. A contaminated wipe should not be passed over an area that has just been wiped, unless it is folded and refolded to provide a clean surface. Usually, quarterly folds are recommended but must be validated with each operator concerned since quarterly folds can lead to confusion of which surfaces of the wipe have been used.

In this case, wipes folded in half should be used. Surface wiping should be carried out from top to bottom, from back to front and from cleanest to dirtiest. The wipe itself should be constructed from a low particulate material.

My suggestion is the next time you are in a restaurant, watch how staff wipes off your table. Did they just mix the bugs around or really clean the surface? Most have no idea they are wiping incorrectly. Also, stop by your microbiological lab in your facility and ask them to show you how they wipe off their workstations.

So, if you are going to wipe off your assembly workstation (table), learn to do it the right way. As I have said for years, "Keep it Clean!" HPN

References: Wiping guide - http://pharmaceuticalvalidation.blogspot.com/2010/04/cleaning-of-isolators-and-bio-safety.html

Stephen M. Kovach, BS, CFER, started in the medical field in 1975 as a sterilization orderly and has worked in many positions within the healthcare industry. He presently is Clinical Educator Emeritus at Healthmark Industries.

The wrong way to wipe your work surface

Photo courtesy Stephen Kovach

SAFELY RETRIEVE REUSABLE SHARPS WITH AN SST SYSTEM

A simple & effective way to protect personnel, patients and the environment from contaminated sharps

SST Systems provide safe handling and transportation of soiled reusable instruments in compliance with OSHA Guidelines. SSTs are 3-part container systems: solid base tray, SteriStrainer drain basket & cover. Placed near the procedure site, the tray system is used to collect the instruments. Covered, it is then safely transported to the decontamination site. There, the cover is removed and the Steri-Strainer is lifted out of the solution and the decontamination process safely begins.

Cover biohazard symbols on SST Tray Systems with a 4"x 4" Removable Clean Label

CLEAN

Manufactured to convey key information to healthcare professionals, the Clean Label is intended to conceal and cover the biohazard symbol on SST systems when transporting clean medical instruments. The 4x4 inch design includes a removable adhesive backing.

TRANSPORTATION IDENTIFICATION TAG

2 in 1 removable label for effective communication

Designed for compliance with OSHA standard CFR 1910.1030, this 3.125" x 5.125" label includes a top perforated tab labeled "CLEAN" and an orange bottom tab labeled "DIRTY". This 2 in 1 label has removable adhesive backing and is available with or without the checklist shown.

healthmark

HMARK.COM | 800.521.6224

Expect great education: 2021 IAHCSMM Annual Conference & Expo

by Julie E. Williamson, Senior Editor and Director of Communications, IAHCSMM

The theme of the 2021 IAHCSMM Annual Conference & Expo is "Great Expectations—Together Toward a Stronger Sterile Processing Future," and now that the wait is over to reintroduce our in-person event, attendees can expect great things when they arrive in Columbus, OH, this fall.

This year, IAHCSMM moved its Conference & Expo from May to October and is offering an innovative scheduling approach with two attendance options Option A, October 9-11; Option B, October 12-14. The sessions for Option A will repeat for Option B, aside from each conference option having a different keynote speaker.

Whichever option attendees choose, they can expect great education and networking opportunities to help them sharpen their knowledge and skills sets, engage in problem-solving and best practice discussions and learn new ways to better meet their customers' and patients' needs.

The Expo will be held on the last day of conference Option A and the first day of conference Option B (October 11-12), allowing all attendees to explore the latest products and services and meet with some of the leading vendors in the SP space.

What follows is an abbreviated schedule for both conference options. *Note: A virtual conference option (October 15-28) is also being offered for those unable to attend the in-person event. In-person attendees will also receive complimentary access to the virtual conference.*

For more information visit: https://s6.goeshow.com/iahcsmm/annual/2021/index.cfm. HPN

Option A

Saturday, October 9

11 a.m.-12 p.m. – Opening Keynote Steve Pemberton
1:30-2 p.m. Advocacy Update
2:15-3:15 p.m. Update on Sterile Processing Best Practices
3:30-4 p.m. – Educational Session Water Safety & Quality During Medical Device Reprocessing
4:15-4:45 p.m. – Educational Session Instrument Care & Handling: How to Care for Your Microsurgical Instruments in 5 Easy Steps
5-6 p.m. Is It Clean? Building a Quality & Audit Program Around Critical Elements Before Packaging
7 p.m.–Opening Reception for Attendees

Sunday, October 10

7:30-8 a.m. – Educational Session Infection Prevention 101
8:15-8:45 a.m. How to Evaluate Stains After Steam Sterilization
9-10 a.m. Are You Ready for the New AAMI ST91 for Endoscope Reprocessing?
10:15-11:15 a.m. – Educational Session Bringing Quality & Innovation to Sterile Processing
11:30 a.m.-12 p.m. – Educational Session How to Tackle Steam Sterilization Failures
1:30-2:30 p.m. – Educational Session Sterile Processing Unscripted
2:45-3:45 p.m. – Educational Session Lessons from the Field: Preparing for the Next Pandemic
4-5 p.m. – Educational Session Fact or Facebook Fiction?
5:15-5:45 p.m. – Educational Session What You Should Know About the Physical Ergonomic Challenges Facing Sterile Processing Professionals

Monday, October 11

7:30-8 a.m. – Educational Session Your Future Is in Your Hands: Building a Career Ladder in Sterile Processing
8:15-8:45 p.m. – Educational Session A Joint Commission Survey: What You Need to Know in Regard to High-Level Disinfection
9-10 a.m. – Educational Session Infection Control for the COVID-19 Era and Beyond
10:15-11:15 a.m. – Educational Session When Everything Goes Wrong: A Patient's Perspective
11:30 a.m.-12 p.m. – Educational Session Understanding Enzymes and How to Get the Most out of Enzymatic Detergents
1:30-2 p.m. – Educational Session A Practical Guide for Disinfectants in SPD
2:15-2:45 p.m. – Educational Session Putting First Things First: What's Your Priority?
2-6:30 p.m.–Expo Open

Option B

Tuesday, October 12

11 a.m.-12 p.m. – Opening Keynote Jon Dorenbos
1:30-2 p.m. Instrument Care & Handling: How to Care for Your Microsurgical Instruments in 5 Easy Steps
2:15-3:15 p.m. Advocacy Update
2-6 p.m.–Expo Open
6:30 p.m.–Evening Reception

Wednesday, October 13

7:30-8 a.m. – Educational Session Water Safety & Quality During Medical Device Reprocessing
8:15-8:45 a.m. Infection Prevention 101
9-10 a.m. – Educational Session Update on Sterile Processing Best Practices
10:15-11:15 a.m. – Educational Session Is It Clean? Building a Quality & Audit Program Around Critical Elements Before Packaging
11:30 a.m.-12 p.m. – Educational Session How to Evaluate Stains After Steam Sterilization
1:30-2:30 p.m. – Educational Session Are You Ready for the New AAMI ST91 for Endoscope Reprocessing
2:45-3:45 p.m. – Educational Session Bringing Quality & Innovation to SP
4-5 p.m. – Educational Session Sterile Processing Unscripted
5:15-5:45 p.m. – Educational Session What You Should Know About the Physical Ergonomic Challenges Facing Sterile Processing Professionals

Thursday, October 14

7:30-8 a.m. – Educational Session Understanding Enzymes and How to Get the Most out of Enzymatic Detergents
8:15-8:45 a.m. – Educational Session A Practical Guide to Disinfectants in SPD
9-10 a.m. – Educational Session Lessons from the Field: Preparing for the Next Pandemic
10:15-10:45 a.m. – Educational Session A Joint Commission Survey: What You Need to Know in Regard to High-Level Disinfection
11 a.m.-12 p.m. – Educational Session When Everything Goes Wrong: The Patient's Perspective
1:30-2:30 p.m. – Educational Session Infection Control for the COVID-19 Era and Beyond
2:45-3:15 p.m. – Educational Session The Future Is in Your Hands: Building a Career Ladder in Sterile Processing
3:30-4:30 p.m. – Educational Session Fact of Facebook Fiction
4:45-5:45 p.m. – Educational Session How to Tackle Steam Sterilization Failures
6-6:30 p.m. – Educational Session Putting First Things First: What's Your Priority?

97217011 HYG 1 1.0 us12/2020/A-E-US

Blue Wrap is So Last Year

KARL STORZ No-Wrap Sterilization Containers help you **realize cost savings** while protecting your KARL STORZ equipment investment and **reducing the environmental impact** of reprocessing.

Contact your KARL STORZ representative to make the leap to no-wrap sterilization.

STORZ
KARL STORZ — ENDOSKOPE
THE DIAMOND STANDARD

KARL STORZ SE & Co. KG, Dr.-Karl-Storz-Straße 34, 78532 Tuttlingen/Germany
KARL STORZ Endoscopy-America, Inc. 2151 East Grand Avenue El Segundo, CA 90245-5017/USA
www.karlstorz.com

HEALTHCARE PURCHASING NEWS

July 2021
The self-study lesson on this central service topic was developed by STERIS. The lessons are administered by Endeavor Healthcare Media.

Earn CEUs

After careful study of the lesson, complete the examination at the end of this section. Mail the completed test and scoring fee to *Healthcare Purchasing News* for grading. We will notify you if you have a passing score of 70% or higher, and you will receive a certificate of completion within 30 days. Previous lessons are available at www.hpnonline.com.

Certification

The CBSPD (Certification Board for Sterile Processing and Distribution) has pre-approved this in-service for one (1) contact hour for a period of five (5) years from the date of original publication. Successful completion of the lesson and post-test must be documented by facility management and those records maintained by the individual until recertification is required. DO NOT SEND LESSON OR TEST TO CBSPD. For additional information regarding certification, contact CBSPD - 148 Main Street, Suite C-1, Lebanon, NJ 08833 • www.sterileprocessing.org.

IAHCSMM (International Association of Healthcare Central Service Materiel Management) has pre-approved this in-service for 1.0 Continuing Education Credits for a period of three years, until June 4, 2024. The approval number for this lesson is **STERIS-HPN 210406**.

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

LEARNING OBJECTIVES

1. *Define potable water*
2. *Identify areas within SPD impacted by a water crisis*
3. *Describe actions to take during and after a mandated boil advisory*
4. *Develop an emergency water supply plan*

Sponsored by:
STERIS

SELF-STUDY SERIES

Managing a water crisis

What do you mean we don't have any water?!

by Robert Williams

Sterile processing professionals face daily challenges. Specifically, steam quality issues, biologic failures, equipment breakdowns and staffing issues are common problems in sterile processing departments (SPDs) and managers typically have plans in place for when these happen. But there is a less common challenge that can catch the team off-guard and possibly turn the SPD upside down – a water crisis.

Water crises are often not top-of-mind for hospital leaders or sterile processing managers. Yet when water is not available or can't be used, instrument processing must come to a halt, which dramatically impacts the hospital's surgical schedule.

The crisis may be related to a breakdown in the water supply that causes an outage, but it may also be a lack of access to a specific quality of water needed for SPD systems and processes. Just as with all other potential problems, hospitals and especially sterile processing departments should have an emergency water supply plan (EWSP) in place to address these issues if they should arise.

It begins with potable water

Potable water is defined as water that has been deemed safe for human use or consumption. Potable water is also referred to as tap water or drinking water. To be considered potable, testing must confirm that contaminants and microorganisms in the water are below certain levels as specified by the U.S. Environmental Protection Agency (EPA).

Water can come from lakes, rivers, reservoirs, wells or a combination of these sources. None of these sources are potable. Often, they contain contaminants and microorganisms. Water utility companies that supply potable water are responsible for testing and treating water to achieve compliance with EPA regulations.

Each municipal water supply is maintained by local water agencies in each state. This includes the source from which water is drawn, treatment facilities, supply pipes to homes and facilities and all required testing and monitoring. However, water supplied by a facility-owned well is the responsibility of the facility. The facility must ensure proper testing and treatment of the water prior to its use, as dictated by the EPA.

A number of things can happen to interrupt the flow of potable water to a healthcare facility. Water pipes can break, treatment facilities can malfunction, and major weather events like hurricanes and floods can contaminate the water sources on which facilities rely. When potable water is contaminated, municipalities may issue a boil alert to make water safe to drink or they may temporarily stop supplying it.

Impacted functions, systems

Water is a critical component of sterile processing. National standards and guidelines specify the water quality needed for various functions. For example, according to AAMI TIR 34 2014, "Water for the reprocessing of medical devices," manual cleaning of instruments should be carried out with tap water that is free from any contaminants that may cause a risk to the public (also referred to as potable water). Final rinses, however, require the use of *critical water*, which is achieved by using filtration systems to remove many of the minerals and metals in potable water, creating deionized or reverse osmosis water. These components are removed because they can cause staining, hard water deposits and other types of damage to surgical instruments and devices. The type of water required is determined by the process and equipment for which it is used.

The sinks used for reprocessing in an SPD require large volumes of water. Sinks are used when manually cleaning soiled or contaminated instruments and devices sent through for reprocessing. Water is used in initial rinse sinks, soak and wash sinks and for the final rinse after cleaning. After manual cleaning, instrumentation may go through additional automated cleaning processes.

Washer-disinfectors and cart washers are automated machines that clean, rinse and thermally disinfect instrumentation and case carts. They also use large quantities of water. Today's washer-disinfectors are designed to recycle some of the clean rinse water, but they still need gallons of water for proper function.

Ultrasonic cleaners use potable water to create cleaning solutions that are compatible with the cavitation action of the unit. Some ultrasonic cleaners are also capable of rinsing and thermally disinfecting the instrumentation. In these systems, appropriately treated water is used for the final rinse.

Cleaning and rinsing accounts for most of the water used in SPDs. However, high-level disinfection processes, both automated and manual, also use water to rinse instruments and devices after the cycle.

Some sterilization processes also use water. Steam sterilizers generate steam from tap water, and water is supplied to ethylene oxide systems to humidify the load. Liquid chemical sterilant processing systems use water to create the sterilant use dilution and to rinse the devices at the end of the process.

Lastly, water is used at eyewash stations, for hand hygiene and to create disinfectant solutions to clean department floors, counters and surfaces.

SPDs rely on continuously available potable water to clean, disinfect and sterilize devices and surfaces. Whether a department loses water pressure, is placed on a boil advisory or loses water completely, the unexpected change to the water supply can delay all processes within the department, which ultimately affects the sterile instrument supply and thus, the surgical schedule.

What can happen

When water has become contaminated or the conditions create an opportunity for contaminated water, advisories are issued by the water supplier, local and state governments, EPA or Federal Emergency Management Agency (FEMA). Advisories fall into three categories: Boil Advisory, Do Not Drink Advisory and Do Not Use Advisory.

Boil advisories are issued when a known or potential microbial contamination is present in the water that when ingested may make persons ill. Boiling the water kills the microorganisms, making the water safe to drink. Water can still be used for handwashing, hygiene, cleaning and laundry, but should first be boiled for one minute when the affected geographical area is below 6,500 feet elevation and for three minutes when above 6,500 feet.

Do Not Drink advisories are issued when chemicals or toxins in the water will harm a person when consumed. It may still be safe to use the water to flush toilets or wash hands, depending on the chemical or toxin in the water. However, using this water for preparing foods, drinking, oral hygiene, baby formula and ice is prohibited.

A Do Not Use advisory indicates that a harmful microorganism, chemical, toxin or radioactive material is in the water that cannot be safely removed with boiling and will harm persons when skin, lungs or eyes contact the water. Healthcare facilities must not use this water for any reason.

Contaminants can enter the water supply through a variety of events:

- Broken water lines that allow soil to enter the pipe.
- Faulty backflow valves or preventors that allow sewage or untreated water to enter the water supply.
- Flood water from heavy rains and natural disasters that enter the treatment centers and contaminate the water at the origination point.
- Low water pressure that allows contaminants to enter the water lines through microcracks within the lines. When pressure drops below 20 psi for more than one hour, contaminants can flow into the water supply from the cracks.
- Construction crews who strike water mains while digging, causing pressure drops in the system and allowing contamination to enter the supply lines.
- Freezing weather for long periods of time that interrupts water supplies. Frozen pipes can impede the flow, but during the thaw the pipes can also burst, and both conditions can leave areas without water.
- Dead animals at the origination of the water or in holding tanks that introduce contamination.
- Earthquakes and fracking that disturb ground water and introduce contamination.

All water advisories stay in effect until the underlying problem is located and corrected and the water is determined to be safe to drink once more. Of the types of advisories that can be issued, the most likely to impact healthcare facilities is the boil advisory.

What are a department's options when on a boil advisory? Most boil advisories are short-lived but can still have a significant impact on the facility. A boil advisory will directly affect sterile processing functions and indirectly affect operating rooms because of potential instrument shortages. Instruments exposed to potentially contaminated water may be subject to increased levels of microbial bioburden. In addition, because the department's washing, disinfecting, high-level disinfecting and sterilizing equipment typically requires potable water for operation, and a boil advisory indicates that the water is no longer potable, this equipment can't be used during the advisory. Furthermore, any instrument sets that were already processed with potentially contaminated water are considered contaminated and must be removed from inventory, both in sterile storage and assembly areas.

What to do

To minimize the negative surgical consequences of a water crisis, SPD and OR managers and directors should work together. First, they should take a count of all the available sterile instrument sets in inventory and match these to the needs of the

Photo courtesy STERIS

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

Page 30

surgery schedule during the expected boil advisory period. Surgery schedulers will need to communicate with the surgeons and possibly move or reschedule elective surgeries. Critical instrument sets should also be allotted for unexpected emergency procedures. Depending on the anticipated length of the boil alert, it may also be necessary to arrange for instruments sets to be transported to another facility for reprocessing.

Boil advisories due to natural disasters may take days to resolve. For this reason, facilities should include water management as part of their disaster recovery planning, and their contingency planning should include water for the SPD.

When advisories are lifted

Your water utility company will notify everyone when the water is safe to use without boiling. Once this happens, SPD management should contact their local water facility to determine the best steps to proceed after the advisory is lifted. The Centers for Disease Control and Prevention (CDC) recommends flushing all equipment water lines following each manufacturer's instructions, draining and refilling hot water heaters and changing all point-of-entry filters of equipment that uses water (such as automated endoscope reprocessors). Water softeners should also be flushed, or specific cycles run according to the manufacturer's instructions. Water quality should be monitored by each facility's water department and monitored by their risk management and infection prevention departments. Equipment may need to be decontaminated before use if it was down for a longer period. Departments should always refer to each equipment manufacturer for recommendations.

At this time, SPD managers should also review instrument needs with the surgical team to prioritize any instrument backlogs requiring immediate sterilization.

Photo courtesy STERIS

Putting heads together

We have all heard it takes a village to raise a child, but it also takes a village to devise an emergency water supply plan (EWSP). Your facility should determine the appropriate departments and leaders needed to brainstorm, write a policy and implement it when needed. Identify all departments that use water and include them on the team. Members may include a facility/maintenance department manager, an infection preventionist, a perioperative manager/director, a surgical department manager/director, a sterile processing manager, a hemodialysis manger, a risk manager, a medical director, an operations officer and a food service manager.

Some important questions to consider when writing an EWSP are:

- How will the boil alert be communicated internally and externally?
- Is this a partial or complete loss of water?
- How long will the water crisis last; days, weeks or months?
- Which departments will be affected?
- How will these departments be affected (slowdown, shutdown or another compromise of use)?
- What should be done with soiled instruments and devices during a stoppage?
- What processes can continue with bottled or boiled water? Where can it be bought? Can the facility supply boiled water? How much is needed?
- Where can water be sourced (tankers, private wells, mobile water purification systems, etc.)?
- What alternative high-level disinfection or sterilization processes can be used during the event (vaporized hydrogen peroxide sterilizers, tabletop steam sterilizers using bottled water, etc.)?
- Where can reprocessing be outsourced?
- What specific steps are needed to bring the facility back online (e.g., flushing lines, changing filters, cleaning equipment, etc.)?

There are many details to consider when developing an EWSP, and plans should include short-term solutions for limited boil alert advisories as well as steps for long-term water outages. For example, one facility experienced a weeks-long unexpected regional water shortage caused by several burst public pipes. After being forced to cancel a high number of surgical procedures and incurring considerable extra costs for back-up water sources, it was easy for leaders to justify the $500,000 expense to dig a private well and purchase water treatment equipment. This assured that the facility would have potable water during future long-term outages.

Don't get caught off-guard

A water emergency can cause a multitude of negative operational and financial consequences for healthcare providers. If your facility doesn't yet have a thorough EWSP to address water crises, it would be wise to put one in place as soon as possible. Both the EPA and the CDC offer great information to help with this planning. The "Emergency Water Supply Planning Guide for Hospitals and Healthcare Facilities" from the CDC is the perfect place to start.

If you are already prepared with a long- and short-term plan, review your plans regularly to assure that each stakeholder department knows its role and has what it needs to execute the plan. This will assure that you are prepared to minimize the negative impact to the facility, its staff and its patients and visitors. HPN

References:

1. Centers for Disease Control and Prevention. (2021, February 18). Emergency Water Supply Planning Guide for Hospitals and Healthcare Facilities. Centers for Disease Control and Prevention. https://www.cdc.gov/healthywater/emergency/ewsp.html.

2. Centers for Disease Control and Prevention. (2010, November 2). Hospitals, Health Care Facilities & Nursing Homes On this Page During a boil water advisory When a boil advisory is cancelled Related links General Procedures Drinking Water Cooking and Food Preparation Handwashing During a boil water advisory. Centers for Disease Control and Prevention. https://www.cdc.gov/.

3. Benson, R, (2017, May 17) Situations Where Pathogens May Present an Imminent and Substantial Endangerment to the Health of Persons under Section 1431 of the Drinking Water Act [Memorandum]. EPA. https://epa.gov

4. AAMI TIR 34: 2014 (R) 2017. Water for the reprocessing of medical devices

5. Npj, /. (2021, February 17). Boil Advisory Issued; February 17, 2021. Natchitoches Parish Journal. https://natchitochesparishjournal.com/.

6. Npj, /. (2021, February 24). NATCHITOCHES WATER SYSTEM BOIL ADVISORY STILL IN EFFECT. Natchitoches Parish Journal. https://natchitochesparishjournal.com/.

Robert Williams, MMHC, BA, CSPDT, CER, is a healthcare consultant and educator with more than 30 years of experience in leadership, management and education. His previous roles involved operations and logistics within the perioperative and sterile processing settings. Williams is currently credentialed through CBSPD as a Certified Sterile Processing Technician and is an active member of AORN and IAHCSMM.

CONTINUING EDUCATION TEST • JULY 2021

Managing a water crisis

What do you mean we don't have any water?!

Circle the one correct answer:

1. **Which sterile processing equipment can be used during a water crisis?**
   a. Washer disinfector
   b. Steam sterilizer
   c. Vaporized hydrogen peroxide sterilizer
   d. Wash sink
2. **A boil advisory is issued when known or potentially harmful microbial contamination is present in potable water.**
   a. True
   b. False
3. **What is present in the water during a No Drink Advisory?**
   a. Harmful microorganisms
   b. Chemicals or toxins that are harmful when drunk
   c. Radioactive materials
   d. Food coloring
4. **Who mandates a water boil advisory?**
   a. Central sterile department
   b. CEO of facility
   c. EPA, CDC, FEMA or local governments
   d. Wildlife and Fishery Department
5. **How long must the water pressure be below 20 psi to create an opportunity for contamination through microcracks?**
   a. 30 minutes
   b. 45 minutes
   c. One hour
   d. 24 hours
6. **Which would not cause a boil advisory?**
   a. Washer-disinfector malfunction
   b. Freezing temperatures
   c. Construction
   d. Low water pressure
7. **Who would NOT be included on the team when forming an EWPS?**
   a. Facility manager
   b. Security
   c. OR supervisor
   d. Chief of Operations
8. **Which is the regulating body for water safety parameters?**
   a. Facility water manager
   b. Central sterile manger
   c. Environmental Protection Agency
   d. Centers for Disease Control and Prevention
9. **What can you use water for during a boil advisory?**
   a. Handwashing
   b. Drinking
   c. Washing instruments
10. **Which task is necessary before starting up SPD equipment after a boil alert?**
    a. Cleaning and decontaminating the sink
    b. Disinfecting all work surfaces
    c. Flushing water lines
    d. Changing air filters

IAHCSMM
Instrumental to Patient Care®

The approval number for this lesson is **STERIS-HPN 210406**.

CBSPD

Request for Scoring

❑ *I have enclosed the scoring fee of $10 for EACH test taken — **Payable to Healthcare Purchasing News.** We regret that no refunds can be given. (It is not neccessary to submit multiple tests separately.)*

Detach exam and return to:
Continuing Education Division
Healthcare Purchasing News
2477 Stickney Point Road, Suite 315B
Sarasota, FL 34231
PH: 941-927-9345 Fax: 941-927-9588

Presented by
HEALTHCARE PURCHASING NEWS

Please print or type. Return this page only.	
Name	
Title	
Hospital Name	
Mailing Address	
Apt/Suite	
City, State, Zip	
Daytime Phone	
Email	

Charting a cleaning course

EVS crews maintain steady path in healthcare facility decontamination and protection during pandemic

by Ebony Smith

Photo 183324584 © Nataliia Mysik | Dreamstime.com

The COVID-19 pandemic crashed into the world like tidal waves in a storm with catastrophic effects on the global healthcare, economic and cultural systems. Infections and deaths surged in communities, dampened lives and overwhelmed healthcare. As the pandemic now seems to be subsiding in some aspects and areas, it still remains vital to help protect populations from transmission and contraction of SARS-CoV-2.

Consequently, COVID-19 boosted concentration on surface cleaning and personal hygiene at home, in hospitals and other workplaces, as well as in public spaces. Environmental Services (EVS) staff answer this call performing essential cleaning and sanitization in patient care settings.

"EVS teams have always played an integral role in cleaning and disinfection in healthcare facilities," emphasized Julie Stegeman, IIDA, NCIDQ, LEED AP ID+C, Healthcare Segment Manager, Interface. "They are frontline defenders when it comes to contamination control. The ongoing COVID-19 crisis elevated the role of these EVS teams practically overnight. At the same time, it made their roles more complex as they adapted to changing best practices surrounding transmission prevention, social distancing and more."

As the second year of the pandemic persists, ongoing cleaning, hygiene, health and safety actions are expected to continue, according to the American Cleaning Institute (ACI), which serves as the Home of the U.S. Cleaning Products Industry.

"A national online consumer survey conducted by Ipsos on behalf of ACI shows that 85% of respondents are very or somewhat likely to maintain the same level of cleaning practices initially adopted in March 2020, even when the pandemic has passed,"[1] reported ACI.

"In today's current climate, as schools and communities across the country begin to reopen and new variants of the virus continue to spread, the cleaning and hygiene habits adopted at the onset of the pandemic will continue to play a crucial role in helping prevent the spread of illness," ACI stated.

"Key findings include:

- Of the adopted cleaning, disinfecting and hygiene habits, Americans report an increase in use of the following products since the pandemic began in March 2020: hand sanitizer (72% versus 59%), disinfectant wipes (55% versus 44%) and spray disinfectant (42% versus 36%).
- More than 75% of respondents plan to continue to wash their hands frequently with soap and water and 57% report plans to continue using hand sanitizer frequently in the future.
- 73% of Americans cite protecting their own health and wellness, and 62% cite protecting that of others, as reasons to continue their COVID-19 cleaning habits."[1]

With regard to hand hygiene, healthcare and other industries have significantly ramped up their supply of hand sanitizers, according to a survey in April by GP PRO, a division of Georgia-Pacific.[2]

The survey, "found that the number of hand sanitizer units in foodservice, healthcare, industrial, lodging, and office facilities nearly doubled since the start of the coronavirus pandemic, increasing from an average of 23 units to more than 40 units per facility. The greatest increase occurred in office facilities, with the average number of units tripling, but the highest number of total units occurred in healthcare and lodging facilities, with each averaging 85 per facility."

Additionally, the company reported that, "Hand sanitizer units increased by more than 50% on average in healthcare facilities. Post-pandemic, 91% of healthcare respondents expect to leave most or all of their hand sanitizer units in place."

EVS on deck with facility safety

Hospital, medical and other places of patient care must continue to follow the highest standards and protocols of room and surface cleaning and disinfection to help control the transmission of healthcare-associated infections (HAIs), including COVID-19. EVS workers step up daily to provide these critical practices and protection to help achieve hygienic and safe settings.

"Environmental Services teams play a critical role in keeping healthcare facilities a safer place for everyone," expressed Andrew Rushworth, Director of Product Marketing, Rubbermaid Commercial Products. "They are the unsung heroes of the COVID-19 crisis! They have been working diligently to effectively implement cleaning and disinfection protocols in conjunction with CDC guidance, while navigating the challenges of supply chain shortages and

Andrew Rushworth

Page 34

Defend with Profend®
nasal decolonization swabs for better outcomes with **reduced HAI* risk.**

Efficient, effective bacterial decolonization can help lower HAIs*, length of stays, and costs.[1]

Profend® PVP-Iodine swabs kill 99.7% of *S. aureus* at 10 minutes and 99.9% at 12 hours after application.[2] They are simple for the OR and ICU staff to apply for just 60 seconds, with a compact design for patient comfort. And CDC guidelines recommend nasal decolonization as a core strategy to prevent surgical site infections.

Learn more at www.DefendwithProfend.com

References: 1. Nelson R, Samore M, Smith K, et al. Cost-effectiveness of adding decolonization to a surveillance strategy of screening and isolation for methicillin-resistant *Staphylococcus aureus* carriers. *Clin Microbiol Infect.* 2010;16(12):1740–1746. **2.** PDI *in vivo* Study 0113-CTEVO.
*Healthcare-associated infections

PDI®

BE THE DIFFERENCE®

©2021 PDI PDI11207196

increased demand for routine and terminal cleaning procedures due to the significant number of patients requiring COVID isolation."

Doe Kley, RN, CIC, MPH, T-CHEST, Senior Infection Preventionist, Clorox Professional Products Co. also points to the importance of EVS staff and their work as well as the resources and education they will need to effectively perform their jobs beyond the current crisis.


Doe Kley

"EVS teams save patient lives every day by maintaining the complex clinical environment of care," Kley emphasized. "Experts believe that the SARS-CoV-2 virus, the virus responsible for the pandemic, will likely become endemic and seasonal. EVS teams must ensure that their facilities have EPA-approved disinfectants appropriate, not only for SARS-CoV-2, but also for other targeted healthcare pathogens. They must ensure that instructions for use, including contact time, are followed. Simply put, the key role of EVS is to eliminate the environment as a source of infection."

The Centers for Disease Control and Prevention (CDC) serves as a go-to source for guidance on SARS-CoV-2, COVID-19 and environmental cleaning.

Last year, the CDC "released a new resource highlighting core components of environmental cleaning disinfection in hospitals. The document aims to help healthcare organizations reduce risk of infection from surfaces and provides descriptions and examples of each of the six core components in order to ensure a clean patient care environment. AHA's Association for the Health Care Environment (AHE) played a significant role in the development of the core components of an environmental services program in hospitals within this guidance,"[2] reported the American Hospital Association (AHA).

Among the CDC-recommended best practices for environmental cleaning are, "Environmental cleaning programs in healthcare facilities involve resources and engagement from multiple stakeholders and departments, such as administration, infection prevention and control (IPC), water, sanitation, and hygiene (WASH), and facilities management. They require a standardized and multi-modal approach, as well as strong management and oversight, to be implemented effectively…Comprehensive environmental cleaning programs are most important at acute healthcare facilities and higher tiers of healthcare, where the burden of HAIs is highest. Regardless of type of facility, the key program elements for effective environmental cleaning programs include:

- organization/administration
- staffing and training
- infrastructure and supplies
- policies and procedures
- monitoring, feedback and audit."[3]

"EVS have always played an essential role in helping hospitals and healthcare facilities sustain high hygiene standards," reinforced Deborah Chung, North America Marketing Manager, Healthcare – Professional Hygiene, Essity. "Frequent and routine surface cleaning (especially of high-touch areas) mitigates the spread of HAIs and cross-contamination within healthcare facilities and this responsibility is placed largely on EVS teams."

Partners in infection prevention

Like shipmates at sea, EVS and infection prevention (IP) staff are on board to direct practices for cleaner and safer facilities.

"Effective communication and collaboration between EVS directors, facility managers and/or infection preventionists is integral to the successful implementation of established cleaning and disinfection guidelines, processes, protocols and best practices," shared Rushworth of Rubbermaid Commercial Products. "Ultimately, EVS and infection preventionists are partners in prevention by working towards the same goal: enhanced patient safety and delivery of quality services."


Karen Hoffmann

EVS-IP departments benefit from partnership, education and support, says Karen Hoffmann, RN, MS, CIC, FAPIC, FSHEA, an infection preventionist consultant for the Vidashield UV24 from NUVO Surgical.

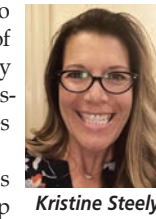
"One of the most important responsibilities for EVS staff is the effective application of cleaning products, including disinfecting products, which could mean the difference between acquiring COVID or another HAI," Hoffmann noted. "Education and training using evidence-based guidelines (e.g., Centers for Disease Control and Prevention) are keys to the success of the EVS program. With the recognition of the importance of a clean environment to prevent cross transmission of pathogens, like *C. difficile* and multi-drug resistant organisms, infection preventionists and EVS leadership began to work together to provide routine training, auditing, checklists and feedback to the front-line EVS workers. IP and EVS rounding together in the facility provide additional opportunities for communication and reinforcing policy and procedures."

Interface's Stegeman notes the value of vendor and IP support.

"A critical first step is selecting vendor partners that offer continual, structured education and training programs," she emphasized. "At the same time, EVS teams must have buy-in from leadership in terms of the need for continual access to resources for infection prevention. Implementing consistent maintenance protocols is an important consideration for EVS and Infection Prevention teams."

Regarding education, the CDC recommends, "Training content should include, at a minimum:

- general introduction to the principles of IPC, including transmission of pathogens; the key role cleaning staff play in keeping patients, staff and visitors safe; how cleaning staff can protect themselves from pathogens
- detailed review of the specific environmental cleaning tasks for which they are responsible, including review of SOPs, checklists, and other job aids
- when and how to safely prepare and use different detergents, disinfectants, and cleaning solutions
- how to prepare, use, reprocess, and store cleaning supplies and equipment (including PPE)
- participatory training methods, hands-on component with demonstration and practice
- easy-to-use visual reminders that show the cleaning procedures (i.e., without the need for a lot of reading)
- orientation to the facility layout and key areas for the cleaning program (e.g., environmental cleaning services areas)
- other health and safety aspects, as appropriate."[3]


Kristine Steely

EVS workers continue to demonstrate a high level of adaptation and creativity on the job, expresses, Kristine Steely, National Sales Director, UVDI.

"Environmental Services teams display leadership everyday tirelessly performing some of the toughest jobs in healthcare facilities – all to protect patients and fellow staff by providing a cleaner, safer environment," Steely said. "These brave women and men are also true innovators – bringing a solutions-first mindset to breakthrough resource and/or time constraints. This ingenuity is pioneering best practices that will outlast the pandemic. It's truly inspiring."

David St. Clair, Chairman and CFO, Halosil International, points to changes in practices made by EVS and IP teams to help decrease COVID-19 spread.

Page 36

VIDASHIELD™ UV24

UV You Can't See Benefits You Can

Vidashield UV24 is an active UV-C Air Purification system that is proven to reduce airborne pathogens. The innovative design allows for 24/7 operation in occupied spaces and each unit can treat a volume of air equivalent to 10'x10'x8' room 4 time per hour.

To learn more about how Vidashield UV 24 can help keep your building healthy visit vidashield.com, nuvosurgical.com or call (800) 831-1222

VIDASHIELD™ UV24

nuvo

"The COVID-19 pandemic challenged EVS and IP teams to enact higher standards across healthcare facilities for preventing the spread of infection," St. Clair expressed. "These actions ranged from policy changes pertaining to mandatory mask wearing and limited visitors to implementing more rigorous disinfection practices. When it comes to disinfection, in the past IP and EVS teams held disinfectants on the EPA's List K of products with a sporicidal kill claim against *C. difficile* as the golden standard. During the pandemic, they turned to List N for products that meet the EPA's criteria for use against SARS-CoV-2."

As the crisis starts to lighten, Kley of Clorox Professional Products Co. recommends EVS teams revisit prior training and education on all infectious pathogens.

"With the pandemic showing signs of slowing and as we start to get back to the 'new' normal, now is the time to hit the reset button and get back to basics," she stressed. "For the past 17 months, a lot of attention has been focused on a single pathogen. During refresher trainings, it's important to remind EVS teams that there are other equally important pathogens like *C. difficile* and AROs. A key component of training programs is competency assessment, which tests both skill and knowledge. This can be accomplished through return-demonstrations, direct observation, quizzes or any combination of these."

Navigating future course of EVS

How can EVS teams prepare for what comes next in healthcare facility cleaning and disinfection?

Halden Shane, DPM, Chief Executive Officer and Chief Scientific Officer, TOMI Environmental Solutions, predicts continued adaptability and support needed among EVS and IP departments.

"While IP specialists and EVS technicians have always required an incredible level of foresight to anticipate new pathogenic threats and patterns within healthcare facilities, the ongoing pandemic has added significant levels of risk, uncertainty and urgency," Shane explained. "We may be facing a relatively new viral threat, but other known and existing pathogens – and potentially lethal ones – are still very much present across the globe. Just as cleaning (EVS) and IP teams need added flexibility during these times, they also need solutions that can broadly help, no matter how our understanding of these threats evolves."

Alice Brewer, MPH, CIC, CPHQ, FAPIC, Clinical Affairs Director, Tru-D SmartUVC, part of PDI Healthcare, recommends creating professional development and communication opportunities for teams.

"The most important thing EVS and IP teams can do to be prepared in the future is to maintain their current competencies and be aware of any new guidelines and recommendations," Brewer stated. "Keeping good lines of communication with other departments, such as nursing, sterile processing and pharmacy, will also ensure that they are prepared for whatever challenges are ahead."

Staying up to date with practices and products in the field also will be key to moving forward, envisions Hoffmann of Vidashield UV24.

"Well established EVS protocols have been a saving grace in healthcare operations," she said. "With or without COVID, what is not going to change is the need to provide a clean environment for patient and healthcare worker safety. EVS will need to be front and center to help healthcare facilities in evaluating new processes and technologies for environmental cleaning and disinfection." HPN

References:

1. ACI Survey: 85% of Americans to Keep Up Cleaning Practices After COVID, https://www.cleaninginstitute.org/newsroom/releases/2021/aci-survey-85-americans-keep-cleaning-practices-after-covid1

2. Growth in Hand Sanitizer Units Expected to Outlast COVID, https://www.gppro.com/gp/news-and-knowledge/growth-in-hand-sanitizer-units-expected-to-outlast-covid

3. CDC releases cleaning resource for health care environment, https://www.aha.org/news/headline/2020-11-02-cdc-releases-cleaning-resource-health-care-environment2

4. CDC and ICAN. Best Practices for Environmental Cleaning in Healthcare Facilities in Resource-Limited Settings. Atlanta, GA: US Department of Health and Human Services, CDC; Cape Town, South Africa: Infection Control Africa Network; 2019, https://www.cdc.gov/hai/prevent/resource-limited/index.html, http://www.icanetwork.co.za/icanguideline2019/3

Achieving healthcare environment hygiene success

What are the latest environmental cleaning and disinfection tools, technology and practices used to decrease pathogens in healthcare facilities and improve safety in patient care?

"As we continue to mitigate the spread of new COVID-19 strains and HAIs, EVS contributions must remain a priority for management, as the focus on facility cleanliness and hygiene is a key contributor to overall success. Digital training platforms, like Tork Interactive Clean Hospital Training, alongside refreshed tools, can help EVS teams feel more engaged and empowered to achieve excellent hygiene results with the understanding that their roles are fundamental to patient, visitor and staff safety. Investing in products and solutions that are specifically designed for EVS teams will also ensure sustained hygiene compliance. Tork Microfiber Cleaning Cloths pick up dirt and microorganisms – instead of just pushing them around – and because they are color coded it is easier for staff to assign a wiper to a specific task.

The Tork Interactive Clean Hospital Training

"To ensure consistency, EVS managers should provide a facility-wide checklist that establishes protocol for surface cleaning, along with precisely what should be disinfected and the required frequency of cleaning for each of these areas.

Deborah Chung, Essity

"One technology that CDC recommends facilities who can't meet the increased ventilation standards use is upper room ultraviolet germicidal irradiation (UVGI). Vidashield UV24 is an upper room UVGI that has demonstrated in multiple studies statistically significant reductions in air and surface contamination of aerosolized bacteria, viruses, and fungi."

NUVO Surgical's Vidashield UV24

Karen Hoffmann, NUVO Surgical

"Halosil's EVS and IP customers have slowed the spread of disease by utilizing the Halo Disinfection System to reach pathogens in all the cracks and crevices where they lurk. The system pairs HaloMist disinfectant (EPA Reg. No. 84526-6) with the HaloFogger equipment to ensure a uniform delivery of our disinfectant throughout complex spaces. Today, the Halo system is the whole room disinfection solution of choice for hospitals, long-term care facilities and surgical centers worldwide. In

Page 38

Introducing The Highly Effective, Highly Affordable, THOR UVC® Disinfection Robot.

"Until THOR UVC came along, UVC disinfection was intriguing but not affordable. Once we evaluated THOR UVC and saw firsthand all of its features and capabilities–it was a no brainer. Now I can't imagine our facility without our THOR UVC systems."

Teresa Harris RN, BSN, CAIP
Senior Director of Clinical Operations

Learn how THOR UVC can help your facility lower HAIs.

To find out how affordable THOR UVC is call, **844-4FINSEN** or visit **ThorKillsMore.com**.

Finsen Tech
Innovation in Disinfection

HaloFogger and HaloMist

particular, during the COVID-19 crisis, our system has been an integral part of routine cleaning in rooms on COVID floors of hospitals and for ambulances and other emergency transport vehicles that have been exposed to potentially COVID-positive patients."

David St. Clair, Halosil International

"During the early stages of the pandemic, multiple customers quickly disinfected emergency treatment (Surge) tents at several locations with minimal staff and quick turnover, and now are using SteraMist to disinfect vaccine spaces. The Pfizer facility creating the coronavirus Pfizer-BioNTech vaccine uses a SteraMist Custom Engineered System (CES) to decontaminate their cleanrooms with 20 SteraMist applicators throughout four cleanrooms. Both our surface and environment unit were used successfully for the reprocessing of tens of thousands of N95 masks at various well-known academic healthcare facilities around the United States for data submission to the FDA.

"'The Total SteraMist Disinfection Cart has been very easy to use on every surface and the technology kills a wide variety of pathogens. We use SteraMist disinfection in our ER isolation rooms and for COVID-19 patient rooms,'

-- Kyle Swanger, Director of Environmental Services, St. Luke's Medical Center.

TOMI's SteraMist

'Since implementing SteraMist, MorseLife's number of COVID, *C. diff* and general flu cases have been lowered. SteraMist has provided all of the healthcare employees, patients and family members with confidence and peace of mind with deeply disinfected environments.'

– Stephen Shell, Risk Manager, MorseLife Health System."

Dr. Halden Shane, TOMI Environmental Solutions

Tru-D SmartUVC – a PDI Solution

"EVS and IP teams have shifted the way they use Tru-D SmartUVC in order to combat SARS-CoV-2. More attention is being paid to mobile devices or those that are used on multiple patients, like blood pressure cuffs and stethoscopes. There has also been increased focus on areas that previously were not considered priority targets for no-touch disinfection, such as public bathrooms and staff work areas."

Alice Brewer, Tru-D SmartUVC

"Our customers have responded by increasing PPE, physically distancing and running their Lytbots after every discharge and isolation to ensure pathogen eradication. One client, St. Tammany Health System, takes a reading on pathogen load in a room before and after manual cleaning and again after UV disinfection with the Lytbot; this ensures accuracy in reporting and helps to maintain their very low infection rates. A hospital of their size is expected to have 30 cases of *C. diff* per year, but due to their robust disinfection protocols, they only see around seven; this amounts to 78% fewer cases than expected for their facility class."

Adam Steinhoff, Co-founder, CEO, Solaris Robots

Solaris Robots' Lytbot 1.0

"The past year has shown us the true value of EVS teams and uncovered some of the inefficiencies in environmental disinfection within healthcare facilities. In addition to utilizing standard cleaning and disinfecting methods and products, such as our Clorox Healthcare portfolio of manual disinfectants, technological advancements, like electrostatic technology, can help in keeping both patient and public spaces safe and healthy. At CloroxPro, we offer a portfolio of electrostatic devices paired with EPA-approved chemistries. Electrostatic devices are engineered to disinfect areas more quickly and efficiently throughout a healthcare facility."

Doe Kley, Clorox Professional Products Co.

"Continuously looking into improving the efficiency and quality of cleaning and disinfection practices is key to enhancing patient safety both now and as facilities plan for the future. This can be accomplished by investing in innovative products, such as our HYGEN microfiber, proven to remove 99.7 % or more of tested microorganisms with water alone, including *C. diff* and MRSA*, coupled with adjunct technologies, such as UVC or dry hydrogen peroxide that support standard cleaning and disinfection."

*Based on third party testing with water only on VCT surface. Tested Virus: Feline Calicivirus (substitute for Human Norovirus), common human coronavirus OC43. Tested Bateria: Clostridioides difficile (*C. diff*), methicillin-resistant Staphylococcus aureus (MRSA), Pseudomonas aeruginosa. Not tested on COVID-19.

Andrew Rushworth, Rubbermaid Commercial Products

"Continual knowledge sharing around product and technology innovations and best practices among EVS leadership across health systems is the most effective way to proactively address infection control. Interface offers a full suite of flooring options – carpet tile, LVT, nora rubber flooring and now vinyl sheet – to meet the specific needs and requirements of healthcare facilities."

nora flooring from Interface

Julie Stegeman, Interface

"To drive environmental hygiene best practices, our frontline partners are increasingly relying on digital resources. One way UVDI supports this is with the advanced SmartData portal built into the UVDI-360 Room Sanitizer; it can store key details for any room disinfection protocol, including room location, device operator and disinfection cycle length. The UVDI-360 is a lightweight device easily maneuvered to potentially high-risk areas across a facility – where it provides rapid UV-C room disinfection in five to 10 minutes. Our Environmental Services partners are increasingly standardizing enhanced environmental hygiene – not only in patient rooms for terminal cleaning, but also in operating rooms, isolation rooms, ICUs, Labor and Delivery, the Emergency Department, Hematology/Oncology and many more sites."

Kristine Steely, UVDI

UVDI-360

FAILURE IS NOT AN OPTION.

Unifine® SafeControl®

Everything you'd expect from a safety pen needle. Along with everything you don't.

Unifine® SafeControl® Offers

- Enhanced user control preventing premature activation[1]
- Visual confirmation of dose-delivery[1]
- Dual needle protection to prevent needlestick injuries
- Visual and audible safety indicator

Want samples? Visit us at unifinesafecontrol.com.

1 Project Saturn B (2017) Face-to-face interviews and product evaluations commissioned with an independent market research agency. Data on file.

OWEN MUMFORD

770-977-2226 | us.info@owenmumford.com | **owenmumford.com**

1755 West Oak Commons Court, Marietta, GA 30062, United States

UNIFINESAFECONTROLADHCP/OMI/0120/1/US

ENVIRONMENTAL SERVICES

ANTIMICROBIAL FABRICS/ TEXTILES

CONSTRUCTION SPECIALTIES
www.c-sgroup.com
HAIGUARD
www.haiguard.com
KLEENEDGE
www.kleenedge.com
PRIME MEDICAL
www.primemedical.com
UMF CORP.
www.perfectclean.com

ANTIMICROBIAL SURFACE MATERIALS & FINISHES

ALLIED BIOSCIENCE
www.alliedbioscience.com
CLEANING SERVICES GLOBAL (CSG)
www.cleansg.com
EVACLEAN BY EARTHSAFE
www.evaclean.com
KLEENEDGE
www.kleenedge.com
MIDMARK CORPORATION
www.midmark.com

CARTS/WORKSTATIONS

AIRCLEAN SYSTEMS
www.aircleansystems.com
CASE MEDICAL
www.casemed.com
DSI
www.dsidirect.com
ECOLAB HEALTHCARE
www.ecolab.com/healthcare
MIDMARK CORPORATION
www.midmark.com
RUBBERMAID COMMERCIAL PRODUCTS
www.rubbermaidcommercial.com
SPECIAL MADE GOODS & SERVICES, INC.
http://www.specialmade.com/
TOUCHPOINT MEDICAL
www.touchpointmed.com

CLEANING EQUIPMENT & SUPPLIES

3M
www.mmm.com/facilities
ACUTE CARE PHARMACEUTICALS
www.pharma-choice.com
AKRO-MILS
www.akro-mils.com
ANGELINI PHARMA, INC.
http://angelini-us.com/
CASE MEDICAL
www.casemed.com
CLEANING SERVICES GLOBAL (CSG)
www.cleansg.com
CLEANIS, INC.
www.cleanis.com
CLOROX HEALTHCARE
www.cloroxhealthcare.com
CS MEDICAL, LLC
www.csmedicalllc.com
DIVERSEY, INC.
www.diversey.com
ECOLAB HEALTHCARE
www.ecolab.com/healthcare
EVACLEAN BY EARTHSAFE
www.evaclean.com
GEORGIA-PACIFIC PROFESSIONAL
www.gppro.com
HUBSCRUB COMPANY, THE
www.hubscrub.com
KIMBERLY-CLARK PROFESSIONAL
www.kcprofessional.com
KINNOS
www.kinnos.com
LONZA, INC.
www.lonza.com
MEDLINE INDUSTRIES, INC.
www.medline.com
P & G PROFESSIONAL
www.pgpro.com
RUBBERMAID COMMERCIAL PRODUCTS
www.rubbermaidcommercial.com
RUHOF HEALTHCARE
www.ruhof.com
SC JOHNSON PROFESSIONAL
www.debmed.com
STERILIZ UVC DISINFECTION
www.RDUVC.com
SYNEXIS BIODEFENSE SYSTEMS
www.synexis.com
TORK, AN ESSITY BRAND
www.torkusa.com
TRINITY GUARDION, INC.
www.trinityguardion.com
TRU-D SMARTUVC
www.tru-d.com
ULTRAVIOLET DEVICES, INC. (UVDI)
www.uvdi.com

CLEANING VERIFICATION SYSTEMS

3M HEALTH CARE
www.3m.com/infectionprevention
BOSTON AIR SOLUTIONS
www.bostonairsolutions.com
CASE MEDICAL
www.casemed.com
CLEANING SERVICES GLOBAL (CSG)
www.cleansg.com
CS MEDICAL, LLC
www.csmedicalllc.com
ECOLAB HEALTHCARE
www.ecolab.com/healthcare
HEALTHMARK INDUSTRIES
www.hmark.com
HYGIENA
www.hygiena.com
KINNOS
www.kinnos.com
KLEENEDGE
www.kleenedge.com
QUALITY PROCESSING RESOURCE GROUP
www.qprgllc.com
RUHOF HEALTHCARE
www.ruhof.com
STERILIZ UVC DISINFECTION
www.RDUVC.com
STERIS
www.steris.com

COVID-19 RESOURCES/ INSTRUCTIONS FOR USE (IFU)

ALLIED BIOSCIENCE
www.alliedbioscience.com
CLEANING SERVICES GLOBAL (CSG)
www.cleansg.com
CLOROX HEALTHCARE
www.cloroxhealthcare.com
DIVERSEY, INC.
www.diversey.com
ECOLAB HEALTHCARE
www.ecolab.com/healthcare
EVACLEAN BY EARTHSAFE
www.evaclean.com
GOJO INDUSTRIES
www.gojo.com
PDI
www.pdihc.com
TORK, AN ESSITY BRAND
www.torkusa.com

CURTAINS/COVERS/DRAPES/ CONTAINMENT PRODUCTS

ECOLAB HEALTHCARE
www.ecolab.com/healthcare
HAIGUARD
www.haiguard.com
TRINITY GUARDION, INC.
www.trinityguardion.com

DECONTAMINATORS, ROOM

BIOQUELL
www.bioquell.com
BOSTON AIR SOLUTIONS
www.bostonairsolutions.com
CLEANING SERVICES GLOBAL (CSG)
www.cleansg.com
CLORDISYS
www.cleanhospital.com
CLOROX HEALTHCARE
www.cloroxhealthcare.com
ECOLAB HEALTHCARE
www.ecolab.com/healthcare
EVACLEAN BY EARTHSAFE
www.evaclean.com
HALOSIL INTERNATIONAL, INC.
www.halosil.com
INDIGO-CLEAN
https://indigo-clean.com/
QUALITY PROCESSING RESOURCE GROUP
www.qprgllc.com
STERIS
www.steris.com
SURFACIDE
www.surfacide.com
SYNEXIS BIODEFENSE SYSTEMS
www.synexis.com
TRU-D SMARTUVC
www.tru-d.com
XENEX
www.xenex.com

DISINFECTANT FOGGERS

HALOSIL INTERNATIONAL, INC.
www.halosil.com

DISINFECTANTS & CLEANERS, HARD SURFACE

3M
www.mmm.com/facilities
ACUTE CARE PHARMACEUTICALS
www.pharma-choice.com
ALLIED BIOSCIENCE
www.alliedbioscience.com
CASE MEDICAL
www.casemed.com
CLEANING SERVICES GLOBAL (CSG)
www.cleansg.com
CLOROX HEALTHCARE
www.cloroxhealthcare.com
CONTEC, INC.
www.contechealthcare.com
DIVERSEY, INC.
www.diversey.com
ECOLAB HEALTHCARE
www.ecolab.com/healthcare
EVACLEAN BY EARTHSAFE
www.evaclean.com
GOJO INDUSTRIES
www.gojo.com
HALOSIL INTERNATIONAL, INC.
www.halosil.com
HUBSCRUB COMPANY, THE
www.hubscrub.com
LONZA, INC.
www.lonza.com
MEDLINE INDUSTRIES, INC.
www.medline.com
METREX
www.metrex.com
NEVOA
www.nevoainc.com
P & G PROFESSIONAL
www.pgpro.com
PALMERO HEALTH
www.palmerohealth.com
PARKER LABORATORIES, INC.
www.parkerlabs.com
PDI
www.pdihc.com
RUHOF HEALTHCARE
www.ruhof.com
SC JOHNSON PROFESSIONAL
www.debmed.com
SPARTAN CHEMICAL COMPANY, INC.
www.spartanchemical.com
STERIS
www.steris.com
SURFACIDE
www.surfacide.com
SYNEXIS BIODEFENSE SYSTEMS
www.synexis.com
TOMI ENVIRONMENTAL SOLUTIONS
http://tomimist.com
TORK, AN ESSITY BRAND
www.torkusa.com
ULTRAVIOLET DEVICES, INC. (UVDI)
www.uvdi.com

DISINFECTANTS & CLEANERS, SOFT SURFACE

CLOROX HEALTHCARE
www.cloroxhealthcare.com
DIVERSEY, INC.
www.diversey.com
ECOLAB HEALTHCARE
www.ecolab.com/healthcare
GOJO INDUSTRIES
www.gojo.com
LONZA, INC.
www.lonza.com
MEDLINE INDUSTRIES, INC.
www.medline.com
PDI
www.pdihc.com
SC JOHNSON PROFESSIONAL
www.debmed.com
SYNEXIS BIODEFENSE SYSTEMS
www.synexis.com
TOMI ENVIRONMENTAL SOLUTIONS
http://tomimist.com
TRINITY GUARDION, INC.
www.trinityguardion.com

Page 42

Prevent OR delays with Tray Belts

DELAYS

$$$

Rips
Tears
Abrasions
Wet Packs
Scuffs

Tray Belts provide a cushioned barrier from the many sharp edges that can easily rip and tear sterile wrapping. The Belts also prevent abrasion marks and damage caused by dragging a wrapped tray.

- **Validated for steam sterilization.**
- **Eliminates wet packs caused by corner guards.**
- **Also available in BeeSafe™ Tray Belts validated for Sterrad and V-Pro sterilizers.**

Tray belt™

Sterile Wrap Protection

US Patent Number 10751436

Cygnus Medical
965 West Main Street, Branford, CT 06405
800.990.7489 www.cygnusmedical.com

EVS-FACILITIES MANAGEMENT RESOURCE GUIDE

DISINFECTANTS, LIST N

CLEANING SERVICES GLOBAL (CSG)
www.cleansg.com
CLOROX HEALTHCARE
www.cloroxhealthcare.com
CONTEC, INC.
www.contechealthcare.com
DIVERSEY, INC.
www.diversey.com
ECOLAB HEALTHCARE
www.ecolab.com/healthcare
EVACLEAN BY EARTHSAFE
www.evaclean.com
GOJO INDUSTRIES
www.gojo.com
HALOSIL INTERNATIONAL, INC.
www.halosil.com
HUBSCRUB COMPANY, THE
www.hubscrub.com
PDI
www.pdihc.com

DISPOSABLES

3M
www.mmm.com/facilities
ACUTE CARE PHARMACEUTICALS
www.pharma-choice.com
CASE MEDICAL
www.casemed.com
CLEANING SERVICES GLOBAL (CSG)
www.cleansg.com
CONSTRUCTION SPECIALTIES
www.c-sgroup.com
CONTEC, INC.
www.contechealthcare.com
ECOLAB HEALTHCARE
www.ecolab.com/healthcare
EVACLEAN BY EARTHSAFE
www.evaclean.com
HAIGUARD
www.haiguard.com
HALYARD HEALTH
www.halyardhealth.com
KIMBERLY-CLARK PROFESSIONAL
www.kcprofessional.com
KLEENEDGE
www.kleenedge.com
MEDEGEN MEDICAL PRODUCTS
www.medegenmed.com
MEDLINE INDUSTRIES, INC.
www.medline.com
PDI
www.pdihc.com
TORK, AN ESSITY BRAND
www.torkusa.com

DUSTING/DUST CONTROL EQUIPMENT & SUPPLIES

CONTEC, INC.
www.contechealthcare.com
ECOLAB HEALTHCARE
www.ecolab.com/healthcare

ELECTROSTATIC DISINFECTION

CLEANING SERVICES GLOBAL (CSG)
www.cleansg.com
DIVERSEY, INC.
www.diversey.com
ECOLAB HEALTHCARE
www.ecolab.com/healthcare
EVACLEAN BY EARTHSAFE
www.evaclean.com
HALOSIL INTERNATIONAL, INC.
www.halosil.com
TOMI ENVIRONMENTAL SOLUTIONS
http://tomimist.com

ENVIRONMENTAL CONTAINMENT UNITS/EXPANSION MODULES

CLOROX HEALTHCARE
www.cloroxhealthcare.com
SCHNEIDER ELECTRIC
https://www.se.com

EVS EDUCATION & TRAINING

CLOROX HEALTHCARE
www.cloroxhealthcare.com
CONTEC, INC.
www.contechealthcare.com
ECOLAB HEALTHCARE
www.ecolab.com/healthcare
EVACLEAN BY EARTHSAFE
www.evaclean.com
GOJO INDUSTRIES
www.gojo.com
KLEENEDGE
www.kleenedge.com
RUBBERMAID COMMERCIAL PRODUCTS
www.rubbermaidcommercial.com
SERVICEMASTER CLEAN
www.servicemasterclean.com
TORK, AN ESSITY BRAND
www.torkusa.com
UMF CORP.
www.perfectclean.com

EVS MANAGEMENT SOFTWARE/SYSTEMS

KLEENEDGE
www.kleenedge.com
TORK, AN ESSITY BRAND
www.torkusa.com

FLOOR CLEANING DEVICES/ VACUUMS/ACCESSORIES

ABATEMENT TECHNOLOGIES
www.abatement.com
DIVERSEY, INC.
www.diversey.com
ECOLAB HEALTHCARE
www.ecolab.com/healthcare
RUBBERMAID COMMERCIAL PRODUCTS
www.rubbermaidcommercial.com

HAND HYGIENE SUPPLIES/ DISPENSERS/STATIONS

3M HEALTH CARE
www.3m.com/infectionprevention
ACUTE CARE PHARMACEUTICALS
www.pharma-choice.com
CASE MEDICAL
www.casemed.com
CLOROX HEALTHCARE
www.cloroxhealthcare.com
DIVERSEY, INC.
www.diversey.com
ECOLAB HEALTHCARE
www.ecolab.com/healthcare
GOJO INDUSTRIES
www.gojo.com
HALYARD HEALTH
www.halyardhealth.com
KIMBERLY-CLARK PROFESSIONAL
www.kcprofessional.com
METREX
www.metrex.com
P & G PROFESSIONAL
www.pgpro.com
PALMERO HEALTH
www.palmerohealth.com
PDI
www.pdihc.com
RUBBERMAID COMMERCIAL PRODUCTS
www.rubbermaidcommercial.com
SC JOHNSON PROFESSIONAL
www.debmed.com
STERIS
www.steris.com
TORK, AN ESSITY BRAND
www.torkusa.com

MICROFIBER PRODUCTS

3M
www.mmm.com/facilities
ACUTE CARE PHARMACEUTICALS
www.pharma-choice.com
ANSELL HEALTHCARE
www.ansellhealthcare.com
CONTEC, INC.
www.contechealthcare.com
DIVERSEY, INC.
www.diversey.com
ECOLAB HEALTHCARE
www.ecolab.com/healthcare
HAIGUARD
www.haiguard.com
HEALTHMARK INDUSTRIES
www.hmark.com
MEDLINE INDUSTRIES, INC.
www.medline.com
RUBBERMAID COMMERCIAL PRODUCTS
www.rubbermaidcommercial.com
UMF CORP.
www.perfectclean.com

PERSONAL PROTECTIVE EQUIPMENT

3M
www.mmm.com/facilities
3M HEALTH CARE
www.3m.com/infectionprevention
ACUTE CARE PHARMACEUTICALS
www.pharma-choice.com
AHLSTROM-MUNKSJO
www.ahlstrom-munksjo.com
ANSELL HEALTHCARE
www.ansellhealthcare.com
CARDINAL HEALTH
www.cardinalhealth.com
CHOYCE PRODUCTS
www.choyce-products.com
CLEANSPACE TECHNOLOGY
www.cleanspacetechnology.com
CROSSTEX
www.crosstex.com
DRAEGER
www.draeger.com
FASHION SEAL HEALTHCARE
www.fashionsealhealthcare.com
HALYARD HEALTH
www.halyardhealth.com
HONEYWELL HEALTH CARE & PHARMA
www.honeywell.com
KEY SURGICAL
www.keysurgical.com
KIMBERLY-CLARK PROFESSIONAL
www.kcprofessional.com
MALAYSIAN RUBBER COUNCIL
www.myrubbercouncil.com
MEDGLUV, INC.
www.medgluv.com
MEDTRONIC
www.medtronic.com
METREX
www.metrex.com
MÖLNLYCKE HEALTH CARE
www.molnlycke.us
PALMERO HEALTH
www.palmerohealth.com
PRIME MEDICAL
www.primemedical.com
PROTECTION PRODUCTS INCORPORATED
www.p-p-i.com
PURE PROCESSING
http://pure-processing.com/
TOUCHPOINT MEDICAL
www.touchpointmed.com
TRONEX
www.tronexcompany.com

TRASH RECEPTACLES

MIDMARK CORPORATION
www.midmark.com
RUBBERMAID COMMERCIAL PRODUCTS
www.rubbermaidcommercial.com

UV EMITTERS/DEVICES/ HANDHELD

ABATEMENT TECHNOLOGIES
www.abatement.com
AMERICAN ULTRAVIOLET
www.americanultraviolet.com
CLORDISYS
www.cleanhospital.com
FINSEN TECHNOLOGIES, INC.
www.finsentech.com
GETINGE
https://www.getinge.com/us/
INDIGO-CLEAN
https://indigo-clean.com/
NUVO
www.nuvosurgical.com
SEAL SHIELD
www.sealshield.com
SKYTRON
www.skytron.us
STERILIZ UVC DISINFECTION
www.RDUVC.com
TRU-D SMARTUVC
www.tru-d.com
ULTRAVIOLET DEVICES, INC. (UVDI)
www.uvdi.com

UV/UVC ROBOTS

DIVERSEY, INC.
www.diversey.com
FINSEN TECHNOLOGIES, INC.
www.finsentech.com
PDI
www.pdihc.com
SOLARIS ROBOTS
www.solarisrobots.com
STERILIZ UVC DISINFECTION
www.RDUVC.com
ULTRAVIOLET DEVICES, INC. (UVDI)
www.uvdi.com
XENEX
www.xenex.com

Page 44

UVC: An Added Layer of **Protection**

The **Tru-D** device's patented Sensor360® technology calculates a measured, accurate UVC dose that destroys pathogens throughout a room from one position and one cycle.[1]

Adding the **Tru-D** enhanced UVC disinfection technology to your cleaning protocols has been shown to provide a cleaner hospital environment for patients.[2,3]

If you are interested in learning more, visit us at **tru-d.com/proven**.

Tru-D®

A PDI SOLUTION

PDI®

1 Anderson, D., et al (2013). Decontamination of Targeted Pathogens from Patient Rooms Using an Automated Ultraviolet-C-Emitting Device. *Infection Control and Hospital Epidemiology,* 34(5), 466-471.2.

2 Mahida, N, et al (2013). First UK evaluation of an automated Ultraviolet-C room decontamination device (Tru-D). *Journal of Hospital Infection,* 05(005), 1-4.3. Sexton, D., Anderson, D., et al (2017).

3 Enhanced terminal room disinfection and acquisition and infection caused by multidrug-resistant organisms and Clostridium difficile (the Benefits of Enhanced Terminal Room Disinfection study): a cluster-randomised,multicentre, crossover study. *The Lancet.* 389(10071), 805-814

FACILITIES MANAGEMENT

AIR CLEANERS/ PURIFICATION SYSTEMS

3M
www.mmm.com/facilities

ABATEMENT TECHNOLOGIES
www.abatement.com

AIRCLEAN SYSTEMS
www.aircleansystems.com

BOSTON AIR SOLUTIONS
www.bostonairsolutions.com

CLEANING SERVICES GLOBAL (CSG)
www.cleansg.com

CS MEDICAL, LLC
www.csmedicalllc.com

EVACLEAN BY EARTHSAFE
www.evaclean.com

HALOSIL INTERNATIONAL, INC.
www.halosil.com

LIFEAIRE SYSTEMS
www.lifeaire.com

NUVO
www.nuvosurgical.com

STERILIZ UVC DISINFECTION
www.RDUVC.com

SYNEXIS BIODEFENSE SYSTEMS
www.synexis.com

ULTRAVIOLET DEVICES, INC. (UVDI)
www.uvdi.com

AIR FILTERS/ FILTRATION SYSTEMS

ABATEMENT TECHNOLOGIES
www.abatement.com

BOSTON AIR SOLUTIONS
www.bostonairsolutions.com

CLEANING SERVICES GLOBAL (CSG)
www.cleansg.com

LIFEAIRE SYSTEMS
www.lifeaire.com

ULTRAVIOLET DEVICES, INC. (UVDI)
www.uvdi.com

BIOHAZARD/WASTE CONTAINMENT SYSTEMS

ACUTE CARE PHARMACEUTICALS
www.pharma-choice.com

CASE MEDICAL
www.casemed.com

CLEANIS, INC.
www.cleanis.com

HEALTHMARK INDUSTRIES
www.hmark.com

HYGIE
www.hygie.com

MEDEGEN MEDICAL PRODUCTS
www.medegenmed.com

MEDLINE INDUSTRIES, INC.
www.medline.com

PALMERO HEALTH
www.palmerohealth.com

RUBBERMAID COMMERCIAL PRODUCTS
www.rubbermaidcommercial.com

STERICYCLE, INC.
www.stericycle.com

BUILDING MANAGEMENT SYSTEMS/DEVICES/ CONTROLLERS

BOSTON AIR SOLUTIONS
www.bostonairsolutions.com

CLEANING SERVICES GLOBAL (CSG)
www.cleansg.com

COMPLIANCE SOFTWARE/ANALYTICS

CASE MEDICAL
www.casemed.com

ECOLAB HEALTHCARE
www.ecolab.com/healthcare

GOJO INDUSTRIES
www.gojo.com

KLEENEDGE
www.kleenedge.com

SEAL SHIELD
www.sealshield.com

DECONTAMINATORS, EQUIPMENT

ABATEMENT TECHNOLOGIES
www.abatement.com

BIOQUELL
www.bioquell.com

CLEANING SERVICES GLOBAL (CSG)
www.cleansg.com

CLOROX HEALTHCARE
www.cloroxhealthcare.com

CS MEDICAL, LLC
www.csmedicalllc.com

CYGNUS MEDICAL
www.cygnusmedical.com

EVACLEAN BY EARTHSAFE
www.evaclean.com

QUALITY PROCESSING RESOURCE GROUP
www.qprgllc.com

RUHOF HEALTHCARE
www.ruhof.com

SEAL SHIELD
www.sealshield.com

STERILIZ UVC DISINFECTION
www.RDUVC.com

STERIS
www.steris.com

SURFACIDE
www.surfacide.com

SYNEXIS BIODEFENSE SYSTEMS
www.synexis.com

TRINITY GUARDION, INC.
www.trinityguardion.com

TRU-D SMARTUVC
www.tru-d.com

VERITIV CORPORATION
www.veritivcorp.com

XENEX
www.xenex.com

ECO-FRIENDLY PRODUCTS & SERVICES

ALLIED BIOSCIENCE
www.alliedbioscience.com

CASE MEDICAL
www.casemed.com

CONTEC, INC.
www.contechealthcare.com

ECOLAB HEALTHCARE
www.ecolab.com/healthcare

EVACLEAN BY EARTHSAFE
www.evaclean.com

GOJO INDUSTRIES
www.gojo.com

GREENHEALTH EXCHANGE
www.greenhealthexchange.com

HAIGUARD
www.haiguard.com

KIMBERLY-CLARK PROFESSIONAL
www.kcprofessional.com

KLEENEDGE
www.kleenedge.com

MEDLINE INDUSTRIES, INC.
www.medline.com

SERVICEMASTER CLEAN
www.servicemasterclean.com

SYNEXIS BIODEFENSE SYSTEMS
www.synexis.com

TOMI ENVIRONMENTAL SOLUTIONS
http://tomimist.com

TORK, AN ESSITY BRAND
www.torkusa.com

VERITIV CORPORATION
www.veritivcorp.com

ENERGY-EFFICIENT PRODUCTS

BOSTON AIR SOLUTIONS
www.bostonairsolutions.com

CLEANING SERVICES GLOBAL (CSG)
www.cleansg.com

ENVIRONMENTAL STEWARDSHIP

EVACLEAN BY EARTHSAFE
www.evaclean.com

GREENHEALTH EXCHANGE
www.greenhealthexchange.com

KLEENEDGE
www.kleenedge.com

RUBBERMAID COMMERCIAL PRODUCTS
www.rubbermaidcommercial.com

SERVICEMASTER CLEAN
www.servicemasterclean.com

TORK, AN ESSITY BRAND
www.torkusa.com

TRINITY GUARDION, INC.
www.trinityguardion.com

FLOORING

NORA, BY INTERFACE
www.nora.com/united-states/en

FURNISHINGS

ABATEMENT TECHNOLOGIES
www.abatement.com

KLEENEDGE
www.kleenedge.com

KWALU, LLC
www.kwalu.com

MEDLINE INDUSTRIES, INC.
www.medline.com

METRO
www.metro.com

SC JOHNSON PROFESSIONAL
www.debmed.com

SEAL SHIELD
www.sealshield.com

SHERWIN WILLIAMS
www.sherwin-williams.com

STERIS
www.steris.com

UMF CORP.
www.perfectclean.com

HVAC CONTROL SOLUTIONS

BOSTON AIR SOLUTIONS
www.bostonairsolutions.com

CLEANING SERVICES GLOBAL (CSG)
www.cleansg.com

LAUNDRY/TEXTILE CLEANING AND HANDLING

ECOLAB HEALTHCARE
www.ecolab.com/healthcare

HAIGUARD
www.haiguard.com

RUBBERMAID COMMERCIAL PRODUCTS
www.rubbermaidcommercial.com

TRINITY GUARDION, INC.
www.trinityguardion.com

MOBILE CONTAINMENT UNITS

ABATEMENT TECHNOLOGIES
www.abatement.com

CASE MEDICAL
www.casemed.com

CS MEDICAL, LLC
www.csmedicalllc.com

XENEX
www.xenex.com

PEST MANAGEMENT SERVICES

CLOROX HEALTHCARE
www.cloroxhealthcare.com

ECOLAB HEALTHCARE
www.ecolab.com/healthcare

ORKIN COMMERCIAL SERVICES
www.orkincommercial.com

SYNEXIS BIODEFENSE SYSTEMS
www.synexis.com

PURCHASED SERVICES/ CONSULTING

GOJO INDUSTRIES
www.gojo.com

STORAGE

COLD CHAIN TECHNOLOGIES
www.coldchaintech.com

DSI
www.dsidirect.com

HÄNEL STORAGE SYSTEMS
www.sterilestorage.com

MIDMARK CORPORATION
www.midmark.com

WASTE MANAGEMENT/ RECYCLING PROGRAMS

RUBBERMAID COMMERCIAL PRODUCTS
www.rubbermaidcommercial.com

WATER FILTRATION/ PURIFICATION

CASE MEDICAL
www.casemed.com

CLEANING SERVICES GLOBAL (CSG)
www.cleansg.com

EVACLEAN BY EARTHSAFE
www.evaclean.com

GETINGE
https://www.getinge.com/us/

WAY FINDING AND SIGNAGE

GOJO INDUSTRIES
www.gojo.com

PDI COMMUNICATION SYSTEMS, INC.
https://www.pdiarm.com/

HPN's Healthcare Professionals Industry Forum

July 21: Facilities/Environmental Services

Our editors will present findings of our Environmental Services report along with industry experts with valuable solutions for healthcare facilities.

November 16: Infection Prevention and Sterile Processing

Tips on instrument sterilization and infection prevention best practices presented by our editors and solution providers.

Register for these Free Virtual Forums now:
https://endeavor.swoogo.com/HPN_FORUM

PRODUCTS & SERVICES

To improve clinical service and storage, Supply Chain searches for shelf-confidence

by Rick Dana Barlow

Photo credit: Vadim | stock.adobe.com

Shelving and storage are about as important to inventory management as walls and a roof to a house or building – without either, all your stuff is exposed to the elements (think damage and infection) and the possibility of theft.

Proper storage remains an art as well as a science. In fact, storage in some cases can serve as an art form as well as something practical. So how can healthcare organizations – either acute care or remote care, hospitals and all other facilities – optimize their storage footprint?

Think out and up.

Balancing the scales

The formula for success always should include employee and patient care, emphasizes Ian Loper, Vice President, DSI.

Ian Loper

"As science and art balance each other out in the healthcare field so does the marriage between equipment and the inventory on its shelves," Loper told *Healthcare Purchasing News*. "The magnet that brings science and art together are the people. If the systems and processes in place focus on the employees and the patients, then everything else will fall into place. Storage equipment plays an integral part within this relationship."

In fact, Loper posits that if a department fails to be organized from a space and workflow perspective that they are "literally losing profits" on the shelves.

"The downstream impact of wasting space can lead to compromising employee care, patient care, and increasing costs throughout a hospital," he insisted. "Slower than normal retrieval times, delayed supply replenishment, expired inventory stored in sub-optimal spaces, and product overflow into adjacent rooms are just some of the inefficiencies that result in an unorganized Supply Chain. Space Optimization initiatives should be at the forefront of every Supply Chain, Materials, OR, and CS/SPD process improvement list in 2021."

Loper urges healthcare facilities to investigate the economics buttressing their options. He estimates that the average new construction costs for a hospital can span $400 to $625 per square foot, which can motivate decisions.

Hospitals, by and large, have two choices, according to Loper. "One – keep the same footprint and upgrade to a more space-efficient storage system, or two - keep the current style of open shelving and plan for renovation or new construction. The former is cost-effective and non-invasive. The latter is expensive, disruptive on the daily operations, and not optimally designed to maximize space," he noted.

"One way of making a positive change would be to upgrade the storage equipment from traditional open wire shelving to an integrated high-density system with pullout baskets and adjustable compartments," Loper advised. "A high-density storage system can save a department up to 25% to 50% of the existing storage space, enabling the department to work and grow organically within the current space without any construction or renovation costs, disruptions, etc."

Yet the pendulum can swing between having not enough space to having too much space to having space poorly organized.

"Often times we visit hospital supply rooms and we find that storage space is underutilized," observed Zach Malingowski, Senior Director, Medline Supply Chain Optimization. "For example, the room may be set up with wall mounted panels and

Zach Malingowski

Page 48

PATIENCE

Both such an important part of the day.

BE HEADACHE FREE, WITH ONE TRAY®

Losing your patience to circumstances that arise and alter your surgery schedule? How would it feel to have a stress free day without schedule interruptions?

ONE TRAY® is an American made, resource ready, Lifetime Warranted product with a faster reprocessing time* that does not cause delay due to sterile wrap tears or wet packs. **CALL TODAY** and incorporate **ONE TRAY**®.

ONE TRAY®
Sealed Sterilization Container

Rev00

Facts. Science. Compliance.

**Total time from sterilizer door closed to delivery of instruments to the OR*

937.619.0138 | onetray.com
Follow us on social media

12-inch-to-18-inch hanging bins. However, if the room is wide enough, they may be able to utilize 24-inch or even 30-inch deep wire racks to increase total capacity of the supply room."

Sifting through inventory can make a difference, too, advised Amy Flynn, OR/CS Market Manager, Hänel Storage Systems.


Amy Flynn

"By re-evaluating PAR levels and weeding out unused products, supply chain departments can become more efficient and potentially gain much-needed floor space," she said. "One of the most common storage errors in supply chain is not right-sizing bins and corresponding racks, resulting in overstuffed or partially empty bins on racks that are either too big or too small, all resulting in a poor use of space, making it difficult to find product and correctly manage inventory."


Brian Hazelwood

Brian Hazelwood, Marketing Manager, Midmark, acknowledges that the increased number of medical products and frequency of supply usage, along with the need for safety and improvements in workflow and productivity, demand more organization in storage.

Well-organized storage in exam, procedure and patient rooms and storage areas can improve efficiency in supply and equipment utilization and also assist with inventory cycling to help ensure first-in, first-out (FIFO) usage for dated supplies, according to Hazelwood.

Hazelwood proffers six ways supply chain can maximize storage space.

1. **Visually seeing equipment and supplies is important.** "Not long ago there were items such as swab jars and culture swabs stored in jars on counters in the exam room. The products may change but the need for visual and easy access to products has not. Easy visual access to products can help improve caregiver efficiency and the patient experience," he indicated.
2. **Use of bins or dividers can assist with organizing supplies and equipment.** "Having to search through a drawer or cabinet to find supplies can detract from the efficiency of the patient visit and the care experience, which is important in developing patient trust and improving outcomes," he noted.
3. **Organized shelving and racks can be an important factor in a facility's storage footprint.** "Like visual jars on a counter, shelving and racks can help make supplies or equipment easy to find and less likely to be overlooked in ordinary searches," he added.
4. **Systematic checking and replenishment of supplies/equipment and locations of those items are also important.** "It is imperative to have supplies or equipment nearby. In an emergency, having the proper supplies/equipment in the designated storage areas can be critical to patient care," he insisted.
5. **Locks on cabinets, drawers, carts and supply closets can help eliminate theft and improve safety in the facility.** "The last thing you want is patients or staff taking supplies for personal use that could potentially cause them or others harm. And not being able to locate supplies or equipment due to theft can endanger patients in need of those items," he warned.
6. **Best practice is to follow the 5S Lean Workplace model.** Hazelwood cites from and references https://www.5stoday.com/what-is-5s/.
   - Sort – keep only what is necessary and discard the rest (when in doubt, throw it out).
   - Set in order – arrange and label necessary items for easy use and return.
   - Shine – keep all areas swept and clean.
   - Standardize – standardize cleanup to preserve the state that exists when the first three pillars (or Ss) are properly maintained.
   - Sustain – make a habit of properly maintaining procedures.

Dave Salus, Market Manager, Healthcare Division, InterMetro Industries Corp., promotes the durability and reliability of long-standing high-density storage as the "most cost-effective way to maximize storage space.


Dave Salus

"It essentially eliminates the need for redundant aisles by allowing the user to move the aisle to the storage unit they need," Salus said. "Today, these systems can support wire shelving for general supplies, epoxy-coated or stainless steel shelving for corrosion protection, and even advanced polymer shelving that not only protects from corrosion, but also protects from rips and tears for wrapped items, like found in the SPD department."

Salus acknowledges that mobility remains another key aspect, and not just for transport.

"For areas that don't utilize high-density systems, configuring storage on casters provides some advantages that will be utilized over time," he continued. "Ease of cleaning for one. Casters enable storage units to be moved for a more thorough cleaning. Supply requirements change over time, and as such the storage area will require some slight adjustments that mobile storage can accommodate. Some requirements are larger scale; think renovation. Mobile supply storage will facilitate easy relocation of supplies, whether for a permanent or temporary move."

Pursuing ingenuity

Designing and crafting effective but more efficient storage footprints can range from high-tech automation tactics to low-tech and simple strategies that are user-friendly and visual.

DSI's Loper argues that anytime a chance emerges to pare down PAR levels and reduce the amount of supplies within a storage area the opportunity should be captured and the new system should be implemented. He points to a two-bin Kanban system as an option.

"When using the first-in first-out method, 50% of the PAR level is stored in the front compartment and the other 50% is stored in separate compartment," Loper noted. "This forces the staff to pull inventory from the front compartment first, then pull from the back bin after the first bin has been depleted. The two-bin system helps drive supply costs down, increases picking accuracy, eliminates expired supplies being used on patients, and maximizes the storage efficiencies within the allotted footprint."

Supply Chain can implement this with both storage types – the wire shelves/plastic bin combination and the integrated high-density basket system, according to Loper.

"The combination of wire/plastic bins is a cost-effective, easy to adopt solution," he said. "The high-density basket system will help consolidate the supplies in a much smaller footprint while increasing its overall storage capacity and enhancing workflow in the department. The two-bin system used in both storage systems reduces inventory levels and makes the department more efficient."

InterMetro's Salus concurs about the utility of two-bin and Kanban systems, but

Page 50

TRITON
CASE CARTS™

IN STOCK
READY TO SHIP

Available in Two Sizes
45.75"w x 29.5"d x 39.25"h
45.75"w x 29.5"d x 59.25"h

- Clean - Dirty Wheel
- Pullout Shelves
- 6 One-Way Drain Holes
- Dual Pain Doors
- Clam Shell Lock Assembly
- Plexi-Glass Doors
- Temperature Reducing Handles
- NO-TEAR™ Integration

800.393.6090 I www.dsidirect.com I www.no-tear.com
23201 Antonio Parkway Rancho Santa Margarita, CA 92688

also points to another fundamental area easily overlooked.

"Often times when shelves are assembled, they are simply equally spaced," Salus observed. "For most systems, this means more effort in re-setting shelves, or worse, no re-setting of the shelves, which results in a lot of wasted space above the supplies below the next shelf."

Salus recommends systems such as "Super Adjustable" or "qwikSLOT" that offer quick, no-tool, shelf adjustment because "they enable the efficient use of vertical space by making it easy to lower shelves into that dead space often found between shelves," he added. "This will often result in available space for a few more storage levels per unit."

Salus applies the vertical logic to the horizontal.

"There are solutions that position vertical uprights (posts) closer together," he continued. "The advantage is narrower shelves requiring less structure or thickness, therefore consuming less vertical storage space. The disadvantage, however, is that the horizontal spaces or compartments become fixed. So now instead of having wasted vertical space between shelves, wasted space between uprights becomes prevalent. Smaller items that don't fill the space are often seen with dead space on either side of it."

Then supply chain must wrestle with what to do with those larger items that won't fit between the fixed uprights, Salus adds. "The way to overcome this is through accessorizing," he assured. "While traditional shelves have more girth, that girth provides for longer spans, spans that can be compartmentalized by item size. Essentially, the space that is lost by uprights every 16 inches and wasted space found next to the items between can be reclaimed by configuring shelves, not only vertically, but also organizing horizontally, to maximize the amount of space available to store items, of any size, efficiently."

Hänel's Flynn emphasizes the importance of vertical space, too, that is served by its software-equipped Rotomat carousel.

"By utilizing the entire height of the room, the Rotomat automated vertical carousel can gain valuable storage space for supplies while also maintaining inventory control and the ability to send PAR level and reorder information to a higher-level system like Cerner or Lawson, for example," she said. "The Rotomat and HänelSoft software provide real-time inventory visibility, the ability to perform cycle counts, quickly locating and removing recalled products, and the ability to pick case carts in a path optimized fashion."

Pharmacy is no stranger to automation and storage – including merging the two – and may offer worthy examples for supply chain to emulate, according to Greg Haas, Senior Product Marketing Manager, Central Pharmacy, Omnicell Inc.

Greg Haas

"Advanced automation and intelligence solutions are driving safer, more efficient storage of medications," Haas said, and health systems adopting these technologies reap at least four key benefits:

- Scanning 100% of medication bar codes to track inventory that enters and leaves the system, as well as when the medication is administered.
- Leveraging automation to reduce labor-intensive employee activities and the opportunity for human error, while freeing up employee time to focus on more value- added activities that could increase patient satisfaction, reduce costs or generate additional revenue.
- Leveraging intelligent software that manages workflows and inventory data to minimize waste of expired medications, maximizes efficiency of automation and employee dispensing activities and provides a central repository of data that informs decision makers of necessary metrics to optimally manage inventory levels.
- Taking advantage of available services that help pharmacy professionals focus on being pharmacists while the medication supply chain is being optimized by people that are medication logistics professionals.

Still, Midmark's Hazelwood suggests the synchronicity of simplicity works.

"[The] use of labeling and organization tools may not always look pretty on drawers, cabinets or shelves, but labeling can help organize the contents and help improve workflow efficiency for better patient experiences and outcomes," he said.

Hazelwood also recommends using dividers or tray dividers in drawers that resemble what you see in a kitchen silverware drawer, labeled racks and angled shelving similar to stadium seating and even bins that can enable the customization of spaces for storage efficiency.

"Mobile carts can be inventoried for specialty use and moved to rooms for scheduled times of usage in that space, such as pediatric days at a clinic, for example," he continued. "Resupply carts can make it easy to move supplies and replenish rooms daily/weekly."

At best, Supply Chain leaders should know their end users and customers, Medline's Malingowski urges.

"It is important to visit supply rooms frequently and gather feedback from supply technicians and nurses who are in the room day in and day out," he said. "They can help identify items that are not being used. This will help make space for faster moving and supplies that are critical for patient care. Furthermore, complete a PAR level optimization every three to six months. When we help customers with PAR optimization, it is not uncommon to find that nearly 30% of the inventory in the supply room is not used at all. PAR levels are often set during the initial set-up of a supply room, but then forgotten about. Completing a frequent PAR optimization can help provide critical insight on supply usage, improve labor utilization and ensure valuable storage space is available for supplies highly used by the clinical team." HPN

Looking ahead for shelf-fulfilling, shelf-serving prophecy

Some of the most innovative advancements to shelving and storage in recent years include the incorporation of technology that automates security, tracking and weighing of products, manages temperature and even protects against bacteria and viruses on surfaces. What might be a new bell or whistle coming down the pipe that might be worth adding to the mix? *Healthcare Purchasing News* asked several experts to share their insights without giving away any prospective developments or trade secrets.

"Inventory control software can be a substantial benefit in maintaining proper equipment/supply volumes and utilization. The software can

Page 52

also help healthcare organizations detect if significant theft is occurring. Digital, key card or even keyed locks on doors, drawers, shelves, mobile carts and storage closets can aid in security. For high-value equipment or larger equipment that is used in multiple rooms, locating systems, such as a real- time locating system (RTLS), can speed the location process and protect against theft.

"Real-time locating systems are also valuable for their contact tracing capability in the event of a COVID-19, MRSA, Norovirus or other outbreak at a clinic or hospital. The technology includes software and hardware that can trace everyone who was in the facility or a particular area of the facility at the time or day the outbreak occurred, aiding in minimizing exposure within the facility and to the general public. While this technology does not protect against an outbreak, it can help identify the people who were exposed, the rooms that need disinfected and which supplies/equipment to dispose of or disinfect. Cleaning and disinfecting are extremely important as many contaminants can live on surfaces from several hours up to months. In the future, decision-modeling software may be used in hospitals and clinics to help with efficient replenishment and utilization of equipment and supplies. Mapping and tracing technology that maps staff patterns can help improve staff efficiency and ensure they are using equipment and supplies in the most efficient way."

Brian Hazelwood, Marketing Manager, Midmark

"There are several technologies that are becoming available to automate the reorder signal using RFID, Kanban, or weighted driven replenishment models in supply rooms. These models require limited clinician intervention while providing real-time data on supply utilization, allowing for on-the-fly PAR level adjustments.

"Finally, we often find room organization and storage space utilization deteriorates due to poor labeling. Electronic labels can allow for easy, mass updates on SKU and reorder point information. A product conversion or PAR optimization may have required thousands of supply items to be manually re-labeled. Electronic labels can be updated instantaneously with the room number and product information. Additionally, inventory issues, like backorders, can be flagged through electronic labels so care teams are aware when they go and pull supplies."

Zach Malingowski, Senior Director, Medline Supply Chain Optimization

"With the growing popularity of radiofrequency identification (RFID) technology for inventory management in healthcare, storage solutions need to be RFID-friendly. This means it needs to be made of a material that will allow these signals to pass without causing interference. Polymer or plastic shelving is an ideal solution for these deployments. Systems like 'MetroMax' provide the durability and strength of its wire counterparts and yet provide the tech-friendly design to not only mount RFID readers, but also allow the signals to pass without issue. Another advancement that is included with MetroMax is antimicrobial protection. The plastic is infused a Microban additive that inhibits the growth of microorganisms on the surface to keep the product cleaner between cleanings. This is a benefit that should be sought for all storage areas."

Dave Salus, Market Manager, Healthcare Division, InterMetro Industries Corp.

"The Rotomat automated carousel has the ability to securely store supply chain product by restricting user access through scanning a badge into the system and the option of an automatic locking door. HänelSoft can track and manage users' transactions, track inventory by PAR level, expiration date, or LOT number and directs the user to the requested product through a graphic display at each Rotomat. Since the Rotomat is a six-sided box, it can reduce the likelihood of airborne pathogens accumulating on product or shelves. The worktable is stainless steel and the carriers are powder-coated, both easily cleaned with any non-caustic cleaner. Also, in the event that a room is not well controlled by the hospital's HVAC system, there is an option for temperature and humidity control within a Rotomat."

Amy Flynn, OR/CS Market Manager, Hänel Storage Systems

"Only 12% of pharmacy leaders believe their pharmacy technology and informatics is optimized.[1] This means there is a lot of room for growth and improvement to realize the greatest return on pharmacy technology investments: Financial return, as well as returns on safety for patients, efficiency for pharmacy leaders, and job satisfaction for pharmacy staff. Professional Services help set up a customer to maximize the impact of technology investments on the first day of go-live, Success Services help ensure this performance continues as the needs of staff, patients and the industry change, while Technical Services help proactively monitor equipment and resolve any issues that may arise. The combination of technology hardware, software and services are essential components to achieving the autonomous pharmacy, a vision which to replace manual, error-prone activities with automated processes that are safer and more efficient."

Greg Haas, Senior Product Marketing Manager, Central Pharmacy, Omnicell Inc.

1 Matsurra GT, Weeks DL. Use of pharmacy informatics resources by clinical pharmacy services in acute care hospitals, American Journal of Health-System Pharmacy. 2009 Nov 1; 66 (21): 1934-8

"More and more healthcare supplies require temperature control during storage and transport, which significantly increases your storage footprint. Cold-chain boxes and phase-change materials can take up a lot of space, and these elements must be brought to the right temperature in a time-consuming process called conditioning with the use of high-grade refrigerators and freezers. Traditionally, in addition to the space and significant investment in conditioning equipment, shippers of high-value temperature sensitive therapies also [have] had to deploy a large labor force and dedicate significant space to the assembly of these shipping containers.

"To avoid this space, labor and cost burden many healthcare suppliers should consider just-in-time 'conditioned setup' services. In the case of maintaining supplies at proper temperatures, this means working with a cold-chain service provider that can manage all the packaging supplies, conditioning of refrigerants and proper assembly of shipping containers at its own facilities. Shipping containers are provided each day on an as needed basis ready to load with drug product and ship back out the door, significantly simplifying the process of packaging and shipping temperature sensitive therapies while helping companies achieve their financial and environmental sustainability metrics."

Jamie Chasteen, Director of Corporate Development, Cold Chain Technologies

7 steps to a hospital supply chain that can save lives

by John Freund, CEO of Jump Technologies

Materials are a hospital's second largest expense, after payroll. Although a great deal of attention is paid to what hospitals pay for supplies, very little attention is paid to how they stock and consume those materials. And while this approach can produce short-term savings, in times of extreme demand, those savings can be quickly depleted due to costly stockouts.

Hospital supply chain staff and clinicians were taxed beyond belief in 2020, as the demands of COVID-19 wracked our country's healthcare supply chain from top to bottom. Now it's time to reimagine the healthcare supply chain to avoid future inventory stockouts and free up cash that can be used to hire nurses and physicians.

Supply chain is more than purchasing and moving boxes. In 2014, Bodenheimer and Sinsky published a theory called the Quadruple Aim when discussing the value of supply chain to a hospital. In that report, they summarized four areas where supply chain adds value to the hospital.

- Enhancing the patient experience – Avoiding stockouts can shorten the patient's stay and comfort them while admitted.
- Improving outcomes – Stockouts can cause clinicians to compromise on what is used, thereby impacting patient outcomes.
- Improving staff work life – Avoiding stockouts can ensure staff safety while at work.
- Reducing costs – Keeping inventories in check and reducing the costs of handling inventory leaves more money to care for patients.

So, what does it take to achieve this level of hospital supply chain transparency and collaboration? Here are seven simple steps that can be employed by individual hospitals or across an entire health system.

1. **Assessment:** Hospitals should start by looking for opportunities to reduce costs and reduce unnecessary care variation. Engage with clinicians to ensure that supply chain is strategically aligned with clinical operations. By examining existing supply chain data, hospitals can identify opportunities to reduce cost while improving patient care.
2. **Data capture:** After establishing a baseline, hospitals can identify new methods for capturing data. Look closely at existing technology to determine how well it fits into existing workflows. Ensuring systems do not disrupt clinicians as they work will improve compliance, allowing hospitals to maximize data capture, which allows accurate tracking and forecasting of inventory.
3. **Basic visualization**: Once hospitals start capturing data, some basic data visualization makes it possible to answer some of the questions that are key to effective inventory management. Namely: What materials do I have on hand? Where are they located? Who's using them? How fast are we going through them? When will we run out?
4. **Forecasting and adjusting**: Answering those questions allows hospitals to create a clearer picture of stock levels and item velocity. That, in turn, leads to more accurate forecasting of demand for each inventory item. Adjusting stocking levels to reflect that demand will allow hospitals to confidently keep less inventory on the shelf without worrying about stocking out.
5. **Optimize procedural areas**: The most expensive hospital inventory is used in procedure rooms. Hospitals must understand workflows in those areas, as well as how data is captured and how it flows into electronic medical records (EMRs) and enterprise resource planning (ERP) systems. This allows facilities to minimize waste by aligning preference cards with actual use, improving receivables by reducing billing errors and achieving buy-in from clinicians by reducing documentation time.
6. **Visualize data across the health system**: When hospitals have a complete picture of their available inventory across their entire health system, they can avoid stockouts through proper demand planning and easily transfer supplies between facilities as demand shifts.
7. **Data sharing and collaboration**: To avoid a repeat of the COVID-19 healthcare supply chain collapse, hospitals must use data to enable collaboration among manufacturers, distributors, GPOs, government agencies and other hospitals. Creating a collaborative, transparent healthcare supply chain ecosystem will benefit everyone — most importantly, patients and clinicians. Before last year, it was easy for hospitals to ignore the cost of their supply chain problems. That is no longer an option. COVID-19 was an extreme situation, but emergencies, such as hurricanes or this year's frigid weather in Texas, can also create disruptions that will challenge supply chain. Hospitals must be ready for the next wave. All it takes is a few simple steps. To learn more about these seven steps to reimagining hospital supply chain, visit jumptech.com.

Photo credit: Gajus | stock.adobe.com

John Freund is founder and CEO of Jump Technologies, a supplier of hospital inventory management systems. He can be reached at jfreund@jumptech.com.

AHRMM21
Health Care Supply Chain
Innovate. Engage. Connect.

AHRMM21 Conference & Exhibition

IN-PERSON

August 23-25
Music City Center | Nashville

VIRTUAL

September
14-16

HYBRID

In-Person
& Virtual

AHRMM is excited to reunite the health care supply chain community in-person for the first time in two years and we hope you will join us to explore the latest strategies, tools and resources to build a more connected and resilient health care supply chain. Attend in-person in Nashville, virtually or register for both the in-person and virtual hybrid for maximum education, resources and networking opportunities!

Register today at
annual.ahrmm.org

AHRMM
Advancing Health Care through Supply Chain Excellence

AHA Events

Navigating the path from price transparency to patient value

by Karen Conway

In January, as many parts of the country still battled surges in COVID-19 cases, the new hospital Price Transparency regulations went into effect with little fanfare. Since then, the conversations and coverage have centered around a general lack of compliance and apparent little use of the information by consumers to effectively price shop for healthcare.

Many hospital executives may be underestimating the potential for the rule to accelerate the role of the consumer in shaping healthcare policy and practice, while providing the impetus for healthcare systems to make the foundational investments needed to succeed in a value-based payment environment. But, like so many things in healthcare, price and the regulation are just pieces of a larger puzzle.

The new regulations require hospitals to post the prices they have negotiated with payers and/or that they charge cash-paying patients for 300 shoppable services. In coming years, the payer-focused aspects of the rule go into effect, requiring insurers to provide online, self-service tools that patients can use to determine their personal out-of-pocket costs for an increasing range of services and items, including procedures, tests, supplies, drugs, equipment and facility fees, among others.

Since January, numerous studies have noted limited compliance by many hospitals. An April "Health System Tracker" report found a lack of consistent or reliable price transparency data across more than 100 hospitals, while another study estimated only one-third of the nation's hospitals have fully complied. Meanwhile, a *Health Affairs* study determined that consumers are not (yet) using the information to choose less expensive care options. Skepticism about the regulations' impact on consumers is just one of a myriad reasons why hospitals may be slow to comply.

Illuminating the disconnect

As for consumers, it may just be too early to tell. With limited compliance, the data may not be robust enough to act upon, and it may require education to overcome an often incorrect assumption that more expensive care is better care. Perhaps the biggest gamechanger will be wider recognition of the disconnect between the prices charged by hospitals, the amount they are reimbursed and the actual cost of delivering care.

In other industries (and even other parts of healthcare), price is a function of the costs – fixed and variable – to produce a product or provide a service – with a margin for profit added based on what the market will bear. Under fee for service (FFS), hospitals have historically been paid based on the volume of services provided with the price either determined by the Centers for Medicare and Medicaid Services (CMS) or negotiated with private payers.

As a friend of mine puts it: Hospitals do price-based costing, not cost-based pricing. As a result, many hospitals have not invested in the infrastructure to fully understand their costs, which is foundational to an effective and market-responsive pricing strategy. Even with the move to value-based payment methodologies, half or more of healthcare is still reimbursed under the FFS model, although with increasing consideration of the quality of care provided.

As consumers get more savvy, they will also see firsthand the vast differences in prices paid for the same procedure, not only across the country or by different health systems, but even within the same hospital. Researchers found that the price paid for a magnetic resonance imaging (MRI) of the lower spine in major metropolitan areas ranged from $400 to $1,100. The variation for the same MRI in a single hospital in New Mexico was even greater, from $221 for Medicare Advantage plans to $1,821 in the commercial insurance market.

As consumers learn more, they, too will demand more value for their money, and value will differ by patient. For example, cost may be more important to one consumer, while others may be willing to pay more for convenience. Informed consumers will be able to weigh their healthcare purchasing decisions on a myriad of factors, including cost, quality performance, convenience and their personal preferences and risk tolerance.

Hospital executives, meanwhile, are concerned that letting payers know the rates they have negotiated with other insurers could make it easier for payers in general to seek the lowest rates possible. This isn't a bad thing for consumers, but it could also benefit everyone.

What if payers and providers were to collaborate to reduce the total cost of care, under which lower reimbursement rates would be less of a risk to providers? Better yet, what if providers could leverage the trend toward clinical-supply chain integration, through which clinicians and supply chain collaborate to reduce variation in care process and products to lower costs and improve quality, to support payor risk-based contracts?

Eying new opportunities

Here is where providers are missing another opportunity. Hospital executives have argued that there are too many variables that could influence the kind of care a patient receives and the associated costs to effectively post prices in advance. Physicians, meanwhile, are best positioned to help consumers understand that – in the delivery of care - additional products or services could be required, which could impact the final price. Research by Lumere and Deloitte both found that most physicians want more data about the costs of the care they provide or prescribe for their patients, while less than 30% say they have access to such information. For this reason, it is concerning that nearly half of hospital executives recently surveyed said they have no educational methods in place to educate clinicians about the price transparency rule.

The move to value-based healthcare is designed to break down the traditional silos between the various stakeholders that impact both the cost and quality of care. Meanwhile, the price charged for products and services, as we have seen, is still unrelated to cost or quality. Could it then be that the price transparency rule is

VALUE. DELIVERED.

what brings the various parties together to not only bridge the gap between price, cost and quality, and in the process uncover the information we need to truly deliver better value for patients? HPN

Karen Conway works to advance the role of the supply chain as a critical enabler in the pursuit of a value-based healthcare system. As Vice President, Healthcare Value for Global Healthcare Exchange (GHX), Conway explores how the supply chain and improved data quality and visibility can support understanding of what increases value for patients and to those organizations that develop and deliver healthcare products and services.

ADVERTISER INDEX

Advertiser	Page	RS#	Web
AESCULAP	21	1	www.aesculapusa.com/greaterprecision
AHRMM	53	25	annual.ahrmm.org
CleanSpace Technology	3	4	www.cleanspacetechnology.com
Clorox Healthcare	7	19	cloroxpro.com
Cygnus Medical	41	2	www.cygnusmedical.com
DSI	49	20	www.dsidirect.com
Dale Medical Products Inc.	BC	3	www.dalemed.com
Finsen Technologies	37	24	thorkillsmore.com
Gojo Industries, Inc.	5	17	GOJO.com/HPN7
HR Pharmaceuticals	13	5	www.ecovue.com
Healthmark Industries	25	6	www.hmark.com
Innovative Sterilization Technologies	47	7	onetray.com
InterFace	Cover	8	interface.com/healthcare
Karl Storz Endoscopy	27	21	www.karlstorz.com
Liebherr USA	IBC	9	home.liebherr.com/lab
MMIC Medical Systems	16	10	mmicmedical.com
Medela	9	11	medelahealthcare.us
Molnlycke Health Care	17	22	www.molnlycke.us/totalvalue
Nuvo, division of Medical Illuminations	35	23	vidashield.com
Owen Mumford Inc.	39	12	www.unifinesafecontrol.com
PDI	33	13	www.defendwithprofend.com
Ruhof Corporation	IFC	14	www.ruhof.com
Ruhof Corporation	1	15	www.ruhof.com
Stryker Instruments	23	18	www.stryker.com
TRU-D SmartUVC	43	16	tru-d.com/proven

This index is provided as a service. The publisher does not assume liability for errors or omissions.

HEALTHCARE PURCHASING NEWS
CLINICAL INTELLIGENCE FOR SUPPLY CHAIN LEADERSHIP

How to contact us

Kristine S. Russell, Publisher, Executive Editor
Healthcare Purchasing News
2477 Stickney Point Road, Suite 315B
Sarasota, FL 34231
Phone: (941) 259-0854
Fax: (941) 927-9588
Email: *krussell@hpnonline.com*

SEND EDITORIAL INQUIRIES & MATERIALS TO

Ebony Smith, Managing Editor
Healthcare Purchasing News
2477 Stickney Point Road, Suite 315B
Sarasota, FL 34231
Phone: (941) 259-0839
Fax: (941) 927-9588
Email: *esmith@hpnonline.com*

SEND ADVERTISING MATERIALS TO

Tiffany Coffman
Healthcare Purchasing News
2477 Stickney Point Road, Suite 315B
Sarasota, FL 34231
Phone: (941) 259-0842
Fax: (941) 927-9588
Email: *tcoffman@hpnonline.com*

EAST COAST SALES

Blake Holton
Email: *bholton@hpnonline.com*
Michelle Holton
Email: *mholton@hpnonline.com*
724 Long Lake Drive
Oviedo, FL 32765
Phone: (407) 971-6286
Fax: (407) 971-8598

MIDWEST SALES

Randy Knotts
8084 E Michelle Dr
Scottsdale, AZ 85255
Phone: (312) 933-4700
Fax: (941) 927-9588
Email: *rknotts@hpnonline.com*

WEST COAST SALES

Blake Holton
Email: *bholton@hpnonline.com*
Michelle Holton
Email: *mholton@hpnonline.com*
724 Long Lake Drive
Oviedo, FL 32765
Phone: (407) 971-6286
Fax: (407) 971-8598

WEB/CLASSIFIED/RECRUITMENT ADS

Tiffany Coffman
Healthcare Purchasing News
2477 Stickney Point Road, Suite 315B
Sarasota, FL 34231
Phone: (941) 259-0842
Fax: (941) 927-9588
Email: *tcoffman@hpnonline.com*

SUBSCRIPTIONS

Please visit our website or send all subscription requests to:
Healthcare Purchasing News
2477 Stickney Point Road, Suite 315B
Sarasota, FL 34231
Phone: (941) 927-9345 Fax: (941) 927-9588
Email: *hpn-subscriptions@endeavorb2b.com*
Visit *www.hpnonline.com/subscribe*

10 ways to build post-pandemic Supply Chain resilience

Last of two parts

by Eric Jurinic

Ultimately, if we have learned anything through the global COVID-19 pandemic, it is that when push comes to shove and access and availability are at a premium, we come to the realization that we do not need the "best" gloves or swabs. We need consistency and reliability. So how do we achieve that? Let me share 10 ideas for you to consider.

1. **Map your Supply Chain.** Identify areas of risk, such as where your supplier is located, where the raw materials come from, and what their market share is. In my role, our category managers are required to know their products inside and out. This is precisely why we can help our clients procure hard to find products with a bit of focus and outside-the-box thinking.
2. **Remain agile.** Design and implement a sourcing process that pre-identifies stakeholders so you can make necessary decisions on options ahead of time. Remember, sometimes you find solutions in the simplest form. For example, you already know 90% of the products that will be hard to source in another pandemic, such as disinfectant wipes, hand sanitizer and toilet paper.
3. **Hold suppliers accountable.** The best way to hold suppliers accountable is to have a backup plan and be willing to execute on that plan. Health systems have encountered shortages before, and I know from personal experience that nearly every health system will go back to the original supplier that failed them. Why? Because of convenience and ease. The potential to lose business is the best way to hold suppliers accountable. Remember, if you're agile, you can move the business. It's likely you have done this already during this pandemic.
4. **Secure local contracts.** They can make a tremendous difference when you need them the most. You must control your supply chain and own it! There is no one else that has more "skin in the game" than you do for the organization you work for, the organization that pays you, and the organization that serves your community.
5. **Ask for help.** If you do not have the experience or resources, there is nothing wrong with asking for help. It is certainly uncomfortable but asking for help and succeeding is a much-preferred alternative and makes for an easier discussion with your boss than trying to do it yourself and failing! There are plenty of companies in business whose primary purpose is to support, assist, train and implement.
6. **Source domestically (when possible).** It is not only good for our communities and sustainability, but it also presents less risk. You may pay a premium but think of the premium you are paying today when you cannot find critical products from others. However, do not assume they are 100% risk-free; they only may offer less risk. Just because the supplier may be down the street, you still need to hold them accountable.
7. **Set targets for your team.** Because it is a team effort, make everyone part of it and make it fun. Make sure your team has time to do their day jobs, but at the same time make sure the team allocates 5% to 10% of their time to special projects. You will be surprised at how empowering this can be and how these special projects infuse energy into the organization.
8. **Empower your Supply Chain team.** Listen generously to your team and make them a part of the sourcing process. Keep in mind that negotiations start at the first conversation. Do not source in a vacuum.
9. **Engage clinical stakeholders early.** If an initiative is kicked off by Supply Chain, we should be engaging our clinical stakeholders and end users early. There is an internal fear of upsetting clinicians in most healthcare settings, therefore some hesitancy to engage them. Waiting too long to engage the right people can torpedo an initiative at the last minute. There will be some uncomfortable discussions, some tension and candid discussions between "clinical" and "admin" staff, but this is healthy. Utilizing their experience and sitting down to understand preferences helps to establish a mutual respect. It's not easy, but the earlier you can engage clinical stakeholders, the better it tends to go.
10. **Do not let perfect get in the way of good.** When it comes to sourcing products, I have seen too many times in healthcare sourcing that perfection can cripple an organization from making a decision. Think systematically, find a solution, implement the solution and continuously improve the solution.

Would you believe me if I told you there were many health systems out there that have very limited supply shortages? It is true! They took matters into their own hands early, remained agile, partnered to source locally, asked for help and did not let perfect stand in the way of good.

That said, we all work hard and still have the best healthcare systems in the world, but we need to continuously raise the standard and improve together. HPN

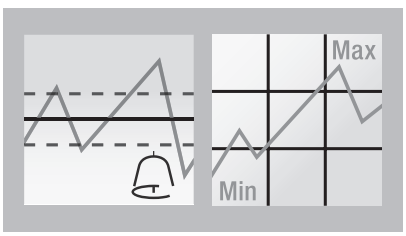
Eric Jurinic serves as Vice President of Corporate Supply Chain at Accumen Inc. He can be reached via email at ejurinic@accumen.com.

Ultra-Low Temperature Freezers: Reliability when you need it most.

Trust the experts when it comes to safely storing sensitive samples. With innovative ultra-low temperature freezers (ULTs) that reach extreme temperatures spanning from –40 to –86°C, Liebherr is setting a new standard in the scientific and health care sector. Liebherr ULTs are capable of holding up to 700 liters and were released during the second half of 2020. We invite you to learn more about our new range of appliances.

Secured access to samples

Fast-acting alarm systems in case of emergencies, to keep valuable materials safe



Minimal temperature fluctuations to preserve the quality of samples

Reliable and safe long-term storage of valuable and sensitive samples.

Depending on their size, our new ULTs have storage capacities of almost 30,000 to over 40,000 samples. Assuming an average value of $10 per sample, this results in a storage value of over $300,000, and even more for longer research projects and rare materials. Consequently, this makes safety of the utmost importance. Several integrated safety features ensure the highest level of reliability and make it easy to choose and trust the new Liebherr ULTs.

A Wide Range of Applications:

-40°C to -60°C: Low Temperature Tests of Materials, Mid-term storage Reagents/ Vaccines

-60°C to -86°C: Long-Term Storage of Biological Products, Chemical Reagents, Vaccines, Bacteria

The safest long-term storage with the lowest energy consumption.

High energy input is required to reach low temperatures that go down to -86°C. Liebherr's ULTs differ significantly from standard commercial freezers in regards to both insulation and energy consumption because we use highly-efficient systems with cascade cooling and KW refrigerant, in combination with a vacuum/foam sandwich construction.

home.liebherr.com/lab

LIEBHERR

When Did Adequate **Become Acceptable?**

Never accept less than the best. Choose Dale.

WHY

Choose the **ACE Connector®** (Access Controller for Enteral)?

Because It Offers Benefits the Competition Just Can't Match

Protects patients and nurses

- Guards clinicians against potentially infectious gastric splashback
- Shields patient from external contamination
- Available in both Legacy and ENFit styles to improve patient safety and reduce misconnections

Saves clinician time

- In-line feeding, suctioning, irrigation, gastric residual sampling and medication delivery with no need to disconnect
- Simple on/off handle that is simple to operate

Works the way you want

- High-quality, long-lasting silicone adapter, preassembled within the package
- Holds tubes & feeding administration sets securely, yet can be disconnected with ease
- For use with wall or portable suction

Helps you provide care without compromise

- Dale products mean quality performance which ultimately saves time and cost
- Inferior products require more frequent replacement
- Fosters greater patient and clinician satisfaction

Always Reach for Something Better
For a free sample of the Dale ACE Connector, call 800-343-3980. Learn more at **dalemed.com**.

Dale®
Always Better

Dale and ACE Connector are registered trademarks of Dale Medical Products, Inc.
ENFIT is a registered trademark of GEDSA used with their permission.
©2021 Dale Medical Products, Inc. All rights reserved. AD-102 Rev A