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BUYLINE

Lines and margins

Rick Dana Barlow
Senior Editor

CHICAGO – Every year the Reuters Supply Chain USA conference offers a grounding and sobering viewpoint on the state of supply chain in industries and segments outside of healthcare providers, the most recent being no exception.While it may be convenient and easy for healthcare supply chain professionals to pass up the opportunity to attend this event as travel budgets tend to be extremely tight and targeted for healthcare-specific intelligence. Further, supply chain needs to be on call and on site seemingly 24-7-365. That's why, by and large, *Healthcare Purchasing News* attends this event to learn and share with you throughout the year what's happening in those industries purported to operate a step ahead of healthcare's curve – but not too far ahead.

Not surprisingly, the financial and operational fumes from the COVID-19 pandemic continue to linger throughout the non-healthcare supply chain with ongoing concerns over shipping routes, port access, labor issues, and rail and trucking challenges, but this year the buzz centered on artificial intelligence (AI), machine learning (ML) and machine-to-machine (M2M) communications. Prior-year events saw 3-D printing, Amazon, autonomous vehicles, blockchain and robotics and robotic process automation (RPA) as attention ticklers.

Much of the value of this two+-day event, attended by roughly 900 supply chain executives, resides in the conversational details during panel discussions and one-on-one interviews with key supply chain executives who share their inner management philosophies and mindsets in how they approach crises, strategic planning and tactical throughput.

You might think that these multimillion-dollar corporations might have little to worry about because they're seemingly flush with much more cash than hospitals, give supply chain way more influence and power courtesy of C-suite respect for being so connected to top-line revenues through sales as well as bottom-line expenses. And supply chain on "the other side" doesn't have to deal with healing people and saving lives. No matter. In many aspects they face similar challenges, grapple with difficult decisions and help people in different ways.

Some observations and decisions can be familiar and predictable, while others may elicit a head-nod and arched eyebrows. Either way, the viewpoints encouraged attendees to read between the lines and annotate in the margins where great thinking can germinate and simmer.

"If anything, the pandemic opened eyes as to what we do and why it's so important," said one high-ranking supply chain executive. "They may not understand it, but they appreciate it."

Added another supply chain executive who was among those acknowledging that just-in-time (JIT) distribution models took a hit: "COVID exposed how dependent we are on each other to make the ecosystem work better and more seamlessly. Society is better off when we haul more freight."

Still another echoed that "supply chain went from being behind the curtain to in front of the curtain so that people see the impact of what we do." He followed up with something of a cerebral bombshell: "How do we transition from being a utility company to being a strategic weapon for our customers with the value we offer? How do we empower our people at work? Everything we do should be how to make life better for them." After all, it's the people who take care of the organization that services the customers.

These executives, like other speakers throughout the conference, view technology more as an enabler rather than a replacer or supplanter. "We focus on process first before we put the technology on top of it," one noted. Other improvements involved integrating idea-sharing, migrating to a "culture of learning" from a "culture of knowing" that reinforces the value of "being directionally correct" versus "100% perfect."

Another promoted AI as a tool to "help us do things in a different way." He encouraged attendees to embrace technology, empower workers and the worker experience as well as be open to new business models that technology will help create and sustain.

One supply chain executive synopsized the mentality with an apt mantra: "Data informs but people perform."

Senior Editor Rick Dana Barlow can be reached at rickdanabarlow@wingfootmedia.biz.

PUBLISHER

Group Publisher *Matthew Raynor*
mraynor@endeavorb2b.com

EDITORIAL

Editor-in-Chief *Janette Wider*
jwider@hpnonline.com
(941) 229-0484
Senior Editor *Rick Dana Barlow*
rickdanabarlow@hpnonline.com
Senior Editor *Brenda Silva*
bsilva@endeavorb2b.com
Senior Contributing Editor *Kara Nadeau*
knadeau@hpnonline.com

ADVERTISING SALES

East & West Coast *Blake and Michelle Holton*
bholton@hpnonline.com
(407) 971-6286
Midwest & Central *April Bruffy*
abruffy@hpnonline.com
(713) 936-5076

ADVERTISING & ART PRODUCTION

Production Manager *Ed Bartlett*
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nmachado@endeavorb2b.com
Audience Development *Laura Moulton*
lmoulton@endeavorb2b.com

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FAST STATS

HIV Declines Among Young People and Drives Overall Decrease in New Infections

- Estimated annual new HIV infections were **12% lower in 2021** compared to 2017—dropping from about 36,500 infections to about 32,100
- The decline was driven by a **34% decrease** in new infections among 13- to 24-year-olds, mostly among gay and bisexual males
- Declines were lower (2017-2021) among young Black/African American (subsequently, Black) and 13- to 24-year-old Hispanic/Latino gay and bisexual males than young White gay and bisexual males
  - Black/African American – **Down 27%**
  - Hispanic/Latino – **Down 36%**
  - White – **Down 45%**
- In 2021, about **30%** of the 1.2 million people who could benefit from PrEP were prescribed it
- More people with HIV were aware of their status in 2021 than 2017, with an uptick from **86% to 87%**
- **1 of 8** people with HIV in the United States do not know they have it

Source: https://www.cdc.gov/media/releases/2023/p0523-hiv-declines-among-young-people.html

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NEWSWIRE

President and CEO of Owens & Minor, Inc. has died

G. Gilmer Minor, III, Owens & Minor, Inc.'s current Chairman Emeritus and Chairman, President, and CEO, has died. Highlights of his professional and personal life are detailed on the company website. Excerpts from his amazing life and legacy include:

From the day he joined his family's business, Gil followed a simple, yet powerful, philosophy that guided his leadership and helped transform Owens & Minor into an industry leader — be honest, always, and know that there is no right way to do a wrong thing. An innovator, pioneer and lifelong learner, he believed that the real heart of any organization is its people. One of Gil's many enduring legacies will be the fact that he instilled this sense of teamwork, and his deeply held values, at every level of the company.

"Gil's honesty, integrity, and unrelenting passion for Owens & Minor to be the best when it comes to serving our healthcare customers are the bedrock that our IDEAL values were built on," commented Edward A. Pesicka, President and CEO, Owens & Minor. "His friendship and guidance were invaluable to me and many other teammates and will continue to contribute to the company's success."
Read on: https://hpnonline.com/53059998

Alzheimer's risk linked to gut health influence

Could changing your diet play a role in slowing or even preventing the development of dementia? We're one step closer to finding out, thanks to a new UNLV study that bolsters the long-suspected link between gut health and Alzheimer's disease.

The analysis—led by a team of researchers with the Nevada Institute of Personalized Medicine (NIPM) at UNLV and published in the journal *Scientific Reports*—examined data from dozens of past studies into the belly-brain connection. The results? There's a strong link between particular kinds of gut bacteria and Alzheimer's disease.

Between 500 and 1,000 species of bacteria exist in the human gut at any one time, and the amount and diversity of these microorganisms can be influenced by genetics and diet. The UNLV team's analysis found a significant correlation between 10 specific types of gut bacteria and the likelihood of developing Alzheimer's disease. Six categories of bacteria—*Adlercreutzia, Eubacterium nodatum group, Eisenbergiella, Eubacterium fissicatena group, Gordonibacter,* and *Prevotella9*—were identified as protective, and four types of bacteria—*Collinsella, Bacteroides, Lachnospira,* and *Veillonella*—were identified as a risk factor for Alzheimer's disease.
Read on: https://hpnonline.com/53060616

CDC Update on SARS-CoV-2 Transmission at EIS Conference

The CDC's 2023 Epidemic Intelligence Service (EIS) Conference brought together approximately 1,800 in-person and 400 virtual attendees during April 24–27, 2023, in a hotel conference facility in Atlanta, Georgia. This annual, multipurpose event consists of both traditional scientific presentations, as well as one-on-one and small-group recruitment events for incoming EIS officers and staff from CDC and state and local health departments.

On Thursday, April 27, several in-person attendees notified conference organizers that they had tested positive for SARS-CoV-2, the virus that causes COVID-19. That same day, EIS leaders made an announcement at the conference about potential cases and took action to reduce further spread connected with the conference and related events. After the conference ended, CDC received additional reports of attendees testing positive for SARS-CoV-2 and worked with the Georgia Department of Public Health to initiate a rapid assessment. The goals were to learn more about transmission that occurred and add to our understanding as we transition to the next phase of COVID-19 surveillance and response.

The rapid assessment team surveyed in-person attendees from May 5–12 about their COVID-19 testing results and healthcare-seeking behavior. Among 1,443 survey respondents (over 80% of the in-person attendees):

- 181 (13%) respondents reported testing positive for SARS-CoV-2
- Of those who reported testing positive, 52% reported no known prior COVID-19 infection
- 1,435 (99.4%) of respondents reported at least one COVID-19 vaccine dose
- 49 (27%) of the respondents who tested positive received antiviral medications
- 70% of respondents reported not wearing a mask; the event coincided with a

period of low COVID-19 Community Levels, where masking is not recommended in CDC guidance
- None were hospitalized

These findings underline the importance of vaccination for protecting individuals against severe illness and death related to COVID-19. Nearly every respondent reported receiving at least one COVID-19 vaccine dose, and none of the 181 people who reported testing positive were hospitalized.

Read on: https://hpnonline.com/53061881

Nurse-initiated *C. diff* testing could reduce infection spread

A new study published in the *American Journal of Infection Control* (AJIC) suggests that allowing bedside nurses to independently order testing for *C. difficile* significantly decreased the amount of time to receive test results, as compared to requiring physician approval. The findings suggest that the testing policy change could potentially decrease the risk of additional patient infections and the corresponding hospital economic burden.

Individuals with *C. difficile* infection (CDI) can be asymptomatic or have symptoms ranging from mild diarrhea to severe and life-threatening inflammation of the colon. CDI is responsible for 223,000 healthcare-associated infections (HAIs) resulting in more than 12,000 deaths and $6.3 billion in costs in the United States annually. Despite numerous implementation strategies to address prevention of the infection, it remains one of the most common HAIs. Early detection, isolation and contact precautions, environmental cleaning, and appropriate antibiotic treatment greatly decrease the rate of morbidity and mortality and can prevent further spread to other patients, decreasing the overall clinical and economic impact.

"Given the implications of CDI on both a hospital and patient level, incentives exist for improving approaches to the prevention and spread of this infection in the clinical environment," said Ashley Bartlett, MD, Fargo VA Healthcare System, Fargo, ND, and the lead author on the published study. "Our findings suggest that allowing bedside nurses with appropriate training to order *C. diff* testing based on patient symptomology could be a valid strategy to help healthcare systems achieve this goal."

At a single site within the Veterans Affairs (VA) Healthcare System in Fargo, ND, infectious disease and nursing staff developed a policy change allowing nurses to independently order stool samples for new patients displaying CDI symptoms, rather than requiring a physician's electronic signature. Researchers then evaluated the effectiveness of the new policy by comparing the frequency of tests being ordered, the time to obtain test results, the number of positive and negative tests, and the time to initiate treatment for positive *C. difficile* tests for the 44 months prior to and 59 months after the change.

Results show:
- After the policy change, there were a relatively even proportion of physicians and nurses ordering the stool PCR labs (51.1% vs 48.9%, respectively).
- The percent of positive and negative tests results before and after the policy change was relatively unaffected (13.9% vs. 11.5% respectively), suggesting that allowing nursing staff to order stool samples does not lead to increased unnecessary laboratory resource use or financial burden to the hospital.
- Following the policy change, the average difference in time to obtain the test result after the PCR lab order was statistically significant before, versus after, the policy change (mean [sd]; 2.1 (1.3) vs. 1.3 (0.7) hours; $p<0.1$).
- The average difference in time to obtain the test result after the PCR lab order between nurses and physicians was also statistically significant after the change (mean [sd]; 1.2 (0.7) vs. 1.3 (0.7) hours; $p=.02$).
- There was no significant difference in time to initiate treatment before and after the policy change (1.7 hours vs. 1.7 hours). The authors suggest this was because the process of notifying physicians to initiate antibiotic treatment did not change – nurses did not receive test results directly, nor could they order antibiotics.

Read on: https://hpnonline.com/53060317

Study Finds High Rates of Persistent Chronic Pain among Adults

A study from the National Institutes of Health (NIH) shows that new cases of chronic pain occur more often among U.S. adults than new cases of several other common conditions, including diabetes, depression, and high blood pressure. Among people who have chronic pain, almost two-thirds still suffer from it a year later. These findings come from a new analysis of National Health Interview Survey (NHIS) data by investigators from the National Center for Complementary and Integrative Health (NCCIH) at the NIH, Seattle Children's Research Institute, and University of Washington, Seattle, and are published in JAMA Network Open.

"Understanding incidence, beyond overall prevalence, is critical to understanding how chronic pain manifests and evolves over time. These data on pain progression stress the need for increased use of multimodal, multidisciplinary interventions able to change the course of pain and improve outcomes for people," said Richard Nahin, PhD, lead author and lead epidemiologist at NCCIH.

Overall, the study found that the rate of chronic pain and high-impact chronic pain (HICP) among adults is approximately 21% and 8%, respectively. Chronic pain is pain that is experienced on most days or every day in the past three months; and HICP is pain that limits life or work activities on most days or every day during the past three months. The links between the widespread burden of chronic pain and the country's opioid epidemic underscore the urgency to understand and address the issue of pain.

The study assessed reports of pain among survey participants and compared their experiences in 2020 to their baseline status in 2019. The study offers several key findings:
- The incidence of new chronic pain cases was high, at 52.4 cases per 1,000 persons per year. This is compared to other common chronic conditions, such as diabetes (7.1 cases/1,000 per year), depression (15.9 cases/ 1,000 per year), and hypertension (45.3 cases/1,000 per year).
- Among those who had reported non-chronic pain in 2019, about 1 in 6 (14.9%) said they had chronic pain in 2020, pointing to the importance of early management of pain.
- Chronic pain is highly persistent, with almost two-thirds (61.4%) of those who reported chronic pain in 2019 still reporting chronic pain a year later. Chronic pain developed into HICP at a rate of 190 cases/1,000 per year, and 361 cases/1,000 per year of people who had initially reported HICP were still suffering a year later.
- About 1 in 10 (10.4%) of people with chronic pain in 2019 recovered and were pain free in 2020.

Read on: https://hpnonline.com/53061449

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Pandemic catches up to Supply Chain compensation

When will profession claw its way back to solid, steady increases?

by Rick Dana Barlow

As with millions of people around the globe during the last three years, the pandemic finally caught up to compensation levels for healthcare provider-based supply chain professionals as reported earnings contracted a mild case of COVID-19, ebbing and flowing by title, location and gender, according to the latest survey of *Healthcare Purchasing News* readers.

Even though the majority of titles surveyed saw an overall average increase, those gains were tempered slightly by a drop for the Director/Manager of Materials Management title, which represents the largest title segment. On something of an historic positive note, however, the title also recorded a higher average salary for females in the role – a survey first.

For the fourth consecutive year, the average compensation level for a Director/Manager of Materials Management remains solidly within the six-digit realm at $105,380. But the double twist is that this year's total is 4.4% lower than last year's $110,185, and for the first-time females out-earned males $105,768 to $102,461, representing a 3.2% gap. Last year, the gap was more of a vice-versa gulf with male titles out-earning females by nearly 45%.

Purchasing Director/Manager titles experienced a similar outcome with their overall average compensation level puncturing the six-figure mark for the first time at $116,666, more than 54% higher than last year's $75,588 average. This title, too, saw females out-earning males for the first time, $125,000 to $112,500, respectively. In 2022, the gulf also was flipped but not nearly so wide at 37% and not reaching six digits either.

Both titles accounted for 50% of overall respondents, according to the survey.

Value Analysis titles – Directors, Managers and Coordinators – clocked in with healthy returns, reporting the average compensation level at $124,874 for 2023, up considerably from $82,500 the year before. Females out-earned males in this title category, too, $135,832 to $92,500, a reverse of the results in 2022.

Several other titles within the department reported gains. Chief Procurement/Purchasing/Supply Chain Officer titles reported an average compensation level at $250,000 in 2023, up from $175,000 last year. Senior Buyer/Buyer/Purchasing Agent titles rebounded with a healthy gain this year to $65,714, up more than a third from $49,285 in 2022, which represented a slide from the year before. O.R. Materials Manager/Business Manager titles also reported an increase to $82,500 on average from $67,678 last year.

The vast majority of respondents (nearly 74%) said their compensation level increased with 22% replying it stayed the same, according to the survey. Those reporting an increase recorded one in the familiar 3% range, and more than 62% of those respondents attributed the increase to job performance alone versus a promotion with a change

➔RESPONDENT PROFILE

Overall, the average composite respondent to HPN's 2023 Supply Chain Compensation survey is older this year and spent more time in the industry and profession but his or her realm of authority and influence remains rather steady.

The average composite respondent is 58 years of age (up from 54.9 last year), has spent 23.7 years on average in supply chain management (compared to 19.9 years in 2022) and 12.3 years at his or her current facility (up from 10.6 years last year). Respondent departments include 18 employees on average (compared to 18.75 last year).

The average composite respondent works in a department that services on average 3.4 hospitals (compared to 3.2 last year) and 8.1 nonacute care facilities (compared to 7.9 in 2022).

in responsibilities (nearly 7%), the survey showed.

Another positive: Nearly 51% reported receiving a bonus, compared to nearly 47% in last year's survey. For several years up through 2021, bonus earnings peaked in the 30% range, according to survey archives.

One statistic elicits something of a yellow alert, however. Survey respondents this year feel less secure in their positions. In fact, less than 50% feel very secure and more than 45% only feel somewhat secure. Last year, more than half said they felt very secure and nearly 40% somewhat secure, so lingering labor concerns continue to affect attitudes.

Meanwhile, the average number of employees has remained consistent year-over-year against the over-arching backdrop of labor shortages that many attribute to the recent global pandemic.

Although not illustrated for the second consecutive year, the overall supply chain management compensation composite index (CCI remains something of an unscientific salary stew of results derived by the average aggregate salary of all survey respondents) surged 14% again to $125,938 from $110,400, resetting the all-time high. Historically, since 2005, *HPN* has recorded 12 CCI increases. This element, while more trivial than statistically relevant, measures more of a subjective impression of attitude and direction.

As a continuing cautionary caveat, *HPN* advises readers that survey data and trending perspectives hinges on a variety of demographic elements that include the number and mix of respondents by job title, facility type and location and gender. For example, more senior-level executives who lead centralized integrated delivery network (IDN) operations generally will elevate salary data, while more buyers at community hospitals may push the salary data lower.

HPN regularly monitors several key trending areas in its annual compensation surveys, including gender, age, experience, longevity, location, education, training and certification.

Respondents this year generally are older and have spent more time within the profession and specifically within their current organizations.

More females responded to the 2023 survey than males for the first time since 2008. In the current survey, 56.7% of respondents were female, 41.8% were male, 1.5% preferred not to answer. Sixteen years ago, for the first time in *HPN*'s 31-year history, 51% of respondents were female and 49% were male.

A larger group hails from suburban facilities with the majority at non-profit facilities. The largest respondent group – more than a third – represent standalone hospitals versus being part of a healthcare system or integrated delivery network (IDN), which can affect compensation levels.

Respondent profile

Demographically overall, the average composite respondent to *HPN*'s 2023 Supply Chain Compensation survey is older this year and spent more time in the industry and profession but his or her realm of authority and influence remains rather steady.

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The average composite respondent works in a department that services 3.4 hospitals (compared to 3.2 last year) on average and 8.1 nonacute care facilities (compared to 7.9 in 2022), according to the survey.

To continue the stylistic attribution trend that debuted last year, *HPN* once again reached out to a variety of supply chain professionals that spanned editorial advisory board members and survey respondent for their reflections. With the aim to motivate their speaking freely and to protect them from repercussions in a politically charged and sensitive culture, *HPN* granted these editorial sources relative anonymity, identifying only by gender and region.

Gender matters

Men continue to earn more than women across the board among healthcare provider organizations (something that isn't so monolithic in other industries and segments). The gap between them periodically has narrowed and widened since *HPN* started conducting this survey decades ago. For the two years (2008 and 2023) that the survey showed women out-earning men within a variety of titles, the result, by and large, was attributed to a larger response from female professionals.

As the compensation gap continues between the genders, what will it take for that gap to narrow permanently and for compensation levels to be more competitive and equivalent, if not equitable?

Short of more women entering the profession and more men leaving the profession, much depends on how compensation is determined, according to one East Coast supply chain executive.

➔SALARY BY TITLE & GENDER

	2023		2023-Female		2023-Male		2022		2022-Female		2022-Male	
Director/Manager, Materials/Supply Chain Management	41%	$105,380	20%	$105,768	19%	$102,461	39%	$110,185	22%	$88,243	25%	$127,797
Purchasing Director/Manager	9%	$116,666	7%	$125,000	1.5%	112,500	17%	$75,588	12%	$63,375	9%	$86,833
Senior Buyer/Buyer/Purchasing Agent	10%	$65,714	4%	$54,833	6%	$74,374	10%	$49,285	10%	$46,250	2%	$73,750
O.R. Materials Manager/Business Manager	3%	$82,500	3%	$82,500		N/A	7%	$67,678	4%	$61,666	4%	$88,333
Chief Procurement/Purchasing/Supply Chain Officer	3%	$250,000		N/A	3%	$250,000	4%	175,000	2%	$90,833	3%	$212,500
Value Analysis Director/Manager/Coordinator	6%	$124,874	4%	$135,832	1%	$92,500	3%	$82,500	3%	$90,500	1%	$67,500

*4.3% of survey responders opted not to share their gender, but are included in the salary summaries

"I think the gaps could be caused by varied responsibilities versus title, but I also do that that women going in and out of the workforce due to family responsibilities during their careers could cause some loss of compensation and earning power," she indicated. "Overtime, if pay is focused solely on responsibility and performance versus longevity, this could narrow the gap."

A second East Coast supply chain executive contends that attention and intention to change the process will make the difference.

"There would need to be a conscientious effort to true up the salaries at the role level for the same knowledge, skills and abilities across the industry in synchrony a la the start of the Indy 500," she said, evoking the famous auto race that occurs near the end of May each year. "This would mean keeping up with promotions and onboarding of new talent, with eyes wide open to equality. This will go a long way to comply with diversity, equality, inclusion and fair treatment and full participation of all people."

Age, experience, longevity

In general, the more experience you gain and/or the longer you stay within an organization, the more you can earn in terms of compensation, influence and power. How might the proverbial "lifer" who may remain longer with fewer organizations or even spending an entire career with one stack up against the proverbial "job hopper" who moves around frequently from organization to organization to advance/elevate his or her title, compensation and career?

The East Coast supply chain executive questions whether that's a reliable or even valid comparison.

"I think the important thing to focus on is opportunity," she noted. "If opportunities present themselves within the same organization over time, and you enjoy the work you do, then continue. The advantage to going to other organizations would be to gain experience or opportunity that could not be gained where you are currently – such as if the organization is too small or downsizing due to financials, etc. One's career can also be driven by personal responsibilities during which time title and compensation may be sacrificed for flexible schedules and time with family. Sayings like, 'the grass isn't always greener' and 'money isn't everything' can ring true."

The second East Coast supply chain executive notes that the pandemic may have redefined how people see and think about the workforce going forward.

"What we learned during the past three years is that for most positions your workforce can be anywhere in the world and be effective at what they do," she said. "Between virtual meetings, email, sharing platforms and change in corporate culture anything is possible. It is almost an expectation that organizations seek out new thought leaders to create flexibility in restructuring regardless of the type of industry – healthcare is no exception. Individuals need to expand their thinking to be valued to industries as well. There is a balance between what is known and how much will continue to be learned and moving on to share what you know to help other organizations improve. There should be an acceptable cycle for either end of the spectrum to minimize casting aspersions."

Hospital type, general location

Historically, the trend seems to be that the higher-compensated Supply Chain executives and professionals seem to entrench themselves at larger, urban not-for-profit hospitals, followed by suburban not-for-profit hospitals and then for-profits followed by government facilities. (Note that more respondents from suburban facilities participated in this year's survey, which likely contributed to lowering the compensation data.)

Further, locations in the Pacific and Northeast regions – as defined by *HPN* in the graphic – continue to lead the nation with consistent six-figure salaries.

One considerable market change during the three-year pandemic was the higher interest in and emphasis on nonacute care and telehealth/telemedicine – particularly during quarantine – that slowed acute-care visits for anything outside of emergencies and pre-existing inpatient stays.

Further, tightening budgets as reactions to economic challenges – including labor shortages accelerated by the pandemic – sparked an elongated busy season of mergers, consolidations and acquisitions.

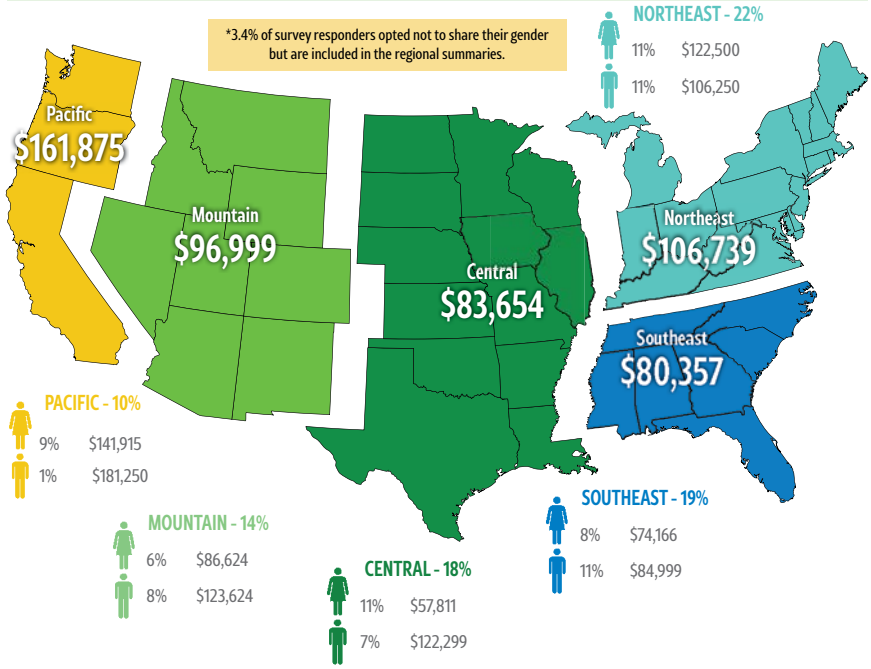
SALARY BY FACILITY

Local/In-state IDN/ Multi-Hospital System	$180,000
Hospital, standalone	$107,726
Multi-Site/Multi-State IDN/System	$85,155
Long-term Care Facility	$76,624
Ambulatory Surgery Center (ASC)	$107,874
Physician Practice (Single or Group)	$92,500
Other	$100,909

Non-profit	$128,809
For-profit	$86,500
Government-owned	$57,499
None of the above	$132,500

URBAN	SUBURBAN	RURAL
$139,792	$115,741	$84,167

SALARY BY REGION



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

"I think the trends follow opportunity," the East Coast supply chain executive observed. "Consolidation continues to be experienced within healthcare organizations. Larger organizations can often offer more opportunity for advancement. This could be reflected in lower salaries showing in the multisite and multistate sector as this may demonstrate local titles being less compensated than corporate-level multisite positions."

The nonacute and telehealth influences on compensation remain in flux, if not in question, for the East Coast supply chain executive.

"For supply chain, experience in serving the nonacute sector is certainly important and following the impact of insurance coverage in these areas will be drivers of service needs," she said. "Understanding what will drive margins in these areas will be important. Those with knowledge of the insurance sector will be valued contributors. Also, creating new delivery models for nonacute and telehealth needs will be key. Patients want ease of use and fast delivery of required supplies."

The second East Coast supply chain executive expresses wonder about healthcare delivery options post-pandemic.

"It will be interesting to watch this over the next several years based on how trends in care should be moving versus how they move," she indicated. "I have sensed that compensation for virtual work, work away from large health centers, etc., should not be as highly regarded as those working in diverse, highly stressed environments, but if quality and effectiveness of the care cycle brings value to the health system those factors should be less relevant. There are needs to be filled at levels that were not relevant just five years ago."

Pandemic reflect

Now that the global COVID-19 pandemic officially has been declared to be in our rearview mirrors and with healthcare organizations continuing to operate in a nominal fashion, the question lingers about how supply chain professionals – executives, leaders, managers – can or might use this development to argue for "fair" compensation – similar to the veteran sports star negotiating the final two years of a contract after a grueling but otherwise successful season.

Of course, because fewer supply chain professionals feel as secure within their organizations than in years past, value interpretations may be a bit muddled.

However, the East Coast supply chain executive urges caution.

"The difference from a sports analogy is that not all organizations are having successful seasons," she countered. "Many have not yet recovered from pre-pandemic performance. This is driving consolidation and new partnerships are being formed to survive the next few years. Supply chain was demonstrated to be a key lynchpin in providing patient care. That work should be rewarded and recognized, but the work of healthcare in general continues to struggle in how to provide more care to more patients with less cost. Supply chain can lead innovation in this area and continue to provide value, and in turn, drive compensation and reward."

The second East Coast supply chain executive recommends a clear re-evaluation of priorities.

"There tends to be a disconnect between what/who was important the last three years and the short sightedness of getting back to past revenue volumes," she noted. "If we are all listening to the same music, it should be leading healthcare away from our big systems and providing healthcare versus sick care. [The] COVID-19 pandemic

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exposed healthcare's underbelly to what chronic but treatable conditions did to wide age and geographical groups. Getting back to 'prevention is worth a pound of cure' is pretty sound advice. I recently talked about creating value to a group of supply chain professionals and used a quote from a physician who gave a recent keynote address: 'Let's not go after that shiny new object. Let's just turn some stuff off. That would make a huge difference for us right now as far as tech goes.'

"The HR issues attributable to burnout and short-staffing for nurses, physicians, techs, others begs to let up on bringing too much continual change to our healthcare environments so it can catch up and refocus on patients," she continued. "We need to support our staff and ensure among other resources that supply chain is there to provide much needed infrastructure."

Incomparable comparables

If you scan a variety of web sites, such as Salary.com and Indeed.com, as well as the Institute for Supply Management's annual salary survey, you'll likely find that on average the base compensation for supply chain professionals in every industry segment save for those working for healthcare providers seems to be at least 50% higher than even the highest compensation levels cited by *HPN* readers.

To compare, per Salary.com: "The average Top Supply Chain Management Executive base salary in the United States is $266,318 as of May 1, 2023, but the range typically falls between $229,181 and $313,761. The average Supply Chain Director salary in the United States is $181,597 as of May 1, 2023, but the range typically falls between $161,738 and $203,159. Salary ranges can vary widely depending on many important factors, including education, certifications, additional skills, the number of years you have spent in your profession."

The East Coast supply chain executive attaches more of a nobility to supply chain operations within healthcare providers.

"Many in healthcare supply chain have come up through healthcare organizations and understand both the challenge and pride that comes with service to patients," she insisted. "Oftentimes this focus on the patient drives different decisions and requires a balance between financial impacts versus a human life. When investors become the ones to be satisfied, a difference focus drives profits. For those that are patient-focused, the for-profit mentality may not be as satisfying, no matter what the salary difference."

It's all about mindset and motivation, according to the second East Coast supply chain executive.

"Healthcare supply chain professionals are passionate about patients and those who care for them," she said. "It's rewarding in more aspects than dollars; however, all that they have been through the past three years, what they are doing to assure all processes are tweaked, and collaborating with all things supply chain internal and external to their healthcare environment deserves appropriate compensation and recognition. Many provider-based healthcare supply chains are not only restructuring their departments but are integral to system restructuring related to costs, processes and value creation to assist their organizations in maintaining relevance to the communities they serve." **HPN**

Editor's Note: For additional information, visit Salary.com, Indeed.com and ISM at these links:

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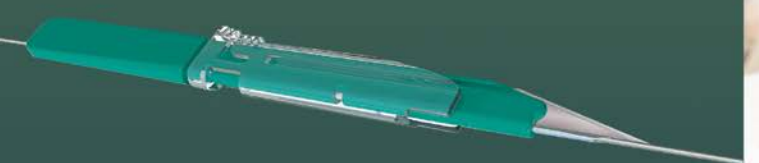

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Staying Sharp about Using Sharps Safely

Healthcare looks to maintain decline in sharps-related injuries.

by Brenda Silva

At the height of their occurrences, sharps-related injuries were a daily event, with needlestick events increased by the frenzied situations in which sharps were being used. The result of many of these common, yet accidental, injuries was an increase in disease and infection transmission for unfortunate staff members. However, with heightened awareness and improved sharps usage protocols—along with enhancements in sharps devices and designs—needlestick injuries have been declining for years. Today, industry professionals are looking to continue the decline in sharps-related injuries by way of implementation and maintenance of best practices for use.

Safety policies and sharps practices

According to Cara Simaga, senior director of Regulatory Affairs at Stericycle, needlestick injuries have been declining for over 30 years. "According to incident data from the International Safety Center Exposure Information Network, needlestick injuries have declined since the 1990s. While some of this is attributed to advances in safety for disposal syringes and winged steel needles, we can't underestimate the role of key safety policies and practices within the care environment to help clinicians and caregivers safely dispose of sharps. The Occupational Safety and Health Administration (OSHA) recommends safe disposal as a core safety practice."


Cara Simaga

She added, "It is worth noting though that while needlestick injuries have declined, injuries from sutures and scalpel blades—especially among physicians—remain high. To that end, it is important that healthcare organizations continue training staff on proper usage and disposal of all sharps to ensure a compliant and safe environment for healthcare workers."

In agreement with Simaga is Marie Moss, RN, MPH, CIC, an infection preventionist who is a member of the Communications Committee at the Association for Professionals in Infection Control and Epidemiology (APIC).


Marie Moss

"In my opinion, sharps-related injuries have declined. This, I believe, is related to improvements in device design, i.e. needle-less IV tubing, self-sheathing or retracting needles and guidewires, and increased use of blunt-fill needles."

Also touting the effectiveness of implemented standards for sharps use is Certified Surgical Technologist (CST) and Clinical Consultant at IQVIA/Ansell, Katie Karus. She pointed out, "I think sharps-related injuries have declined in recent years. I have been in surgery for over 20 years, and I have not only seen changes in standards for double gloving, which can help reduce sharps injuries, but also for creating neutral zones while handing sharps. I think the addition of standards by the Association of periOperative Registered Nurses (AORN) and facility-specific changes including education on their policies for their staff, as well as the introduction of new products, has been instrumental in the decline of sharps-related injuries."


Katie Karus

Safety protocols and proven success

With increased requirements for safer medical devices, new protocols and new product designs have proven successful in reducing sharps-related injuries. Stericycle's Simaga said, "The Department of Transportation (DOT) oversees how sharps waste is transported. At Stericycle we look to minimize interaction between our sharps

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containers and our team members. We train and empower all of our team members on Stop Work Authority (SWA) to be used if they see an issue with a container or any other practice that impacts safety. Sharps containers are stored on carts to minimize interaction with the drivers."

She added, "Stericycle team members also wear appropriate Personal Protective Equipment (PPE), such as eye protection and puncture-resistant gloves, while handling the containers. At our processing facilities, we utilize automated processes including lid removal, dumping of containers, and washing. We are also always looking for ways to improve our automated process such as increased investments in robots and automated pre-washing to decrease interaction points."

Regarding sharps containers, Simaga continued, "OSHA mandates that sharps containers must be closable, puncture-resistant, leak-proof on the sides and bottom, and properly labeled. Stericycle's sharps containers are designed to satisfy this mandate and reduce the risk of sharps injuries. The lids allow for an easy vertical drop, allowing the sharp to land safely in the container. In addition, the containers are see-through and have a max fill line on the label to help prevent potential overflow. To be compliant, containers are labeled with the universal biohazard symbol, the word 'biohazard,' and color-coded red to warn everyone that the contents are hazardous."

At Viscot Medical, marketing associate Nina Morales, reported, "Clinicians have told us that a standardized and unified effort is key in terms of protocol. If everyone is on the same page and is 'speaking the same language' it makes errors less likely to occur. OSHA, CDC, AST, AORN, etc. all have recommendations and requirements around sharps safety but the final implementation of how those recommendations carried out is up to the facility."

She continued, "For example, a neutral zone for sharps is recommended and several products exist to help enforce the neutral zone recommendations. It's up to the facilities to standardize that neutral zone so it looks the same in every OR and no clinician is left guessing where to put their sharps when in use."

Also citing the importance of a neutral zone is Ansell's Karus, who pointed out, "One of the biggest changes has been to create the neutral zone on our mayo stands for all sharps, as well as getting staff and surgeons to comply with and to utilize the same area. There are some great products out on the market to help facilitate these zones.

Rushing increases risk of injury

When considering the most common reasons and situations where sharps-related injuries occur, it appears the frenetic pace of healthcare is most to blame, along with a certain amount of user mishandling of sharps and related instruments.

Ansell's Karus asserted, "In my experience, one of the most common reasons for sharps-related injuries is rushing and distraction. Often procedures just become second nature, and the best way to reduce injuries for staff is making a policy change and requiring ongoing training. I have seen that implementing a policy change to require the use of a neutral zone can significantly reduce the number of sharps-related injuries within the sterile field.

Nurse Consultant Judith Seltzer, MS, BSN, RN, CNOR, for Global & US Marketing-Gloves at Mölnlycke, reported that a Center for Disease Control (CDC) analysis showed that the most prevalent causes of injuries as a result of a needlestick incident were manipulating a needle in a patient (27 percent), improper disposal/disposal-related (22 percent),

Judith Seltzer

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cleanup (11 percent), handling/passing a device during or after use (10 percent).

As a preventative measure for sharps-related injuries, double-gloving has become a popular practice to avoid accidental needlesticks; however, not all injuries are noticed at the time they occur – both in patient care and surgical situations.

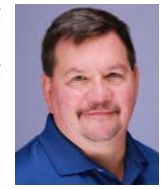
Seltzer said, "More and more researchers continue to balance how surgical gloves play a critical role in minimizing sharps injuries to healthcare workers. AORN has identified PPE as being a primary element under the Sharps Safety Guideline."

She continued, citing the findings of a recent SERMO survey of over 500 practicing surgeons, "Implementing double-gloving into everyday practice can provide staff and patient safety. Double-gloving is proven to reduce the exposure to bloodborne infections by 71 percent. On average, only 10 percent of glove punctures are noticed during surgery, putting operating staff and patients at risk of exposure. Each incident costs up to $4,838 to manage."

Arguably, the operating room and surgical environment have the highest potential for sharps injuries because sharp instruments, scalpels and sutures are handled frequently and passed back and forth amongst the surgical staff. As such, Seltzer asserted there are several approaches to avoiding sharps injuries that healthcare workers can take including "the initial personal protective step to double-glove in all procedures as a preventive strategy."

Safety continues in sharps containers

At Medegen Medical Products, Senior Director of Marketing & International Sales, Ron Prybella pointed out that the commonly seen red sharps containers are not just limited to certain areas of hospitals and healthcare facilities anymore.



Ron Prybella

"We are seeing sharps used in more locations within the hospitals to make the containers more convenient to use. Awareness and sensitivity to reducing exposure both for needlesticks and also biological contamination has driven sharps container availability in each patient's room, limiting the distance traveled with the needle," Prybella said.

He added, "There was also a complicating factor where sharps containers only fit into a certain manufacturers cabinets and brackets limiting choice and managing inventories. New products are being designed to fit into multiple cabinets. For example, the leading sharps container is a 5-quart or 5.4-quart sharps from two different suppliers, and the sharps would not fit into each other's cabinet. We have a new design that provides the 5.4-quart volume, and it fits into both cabinets simplifying supply by reducing the number of SKUs."

Medegen's 5.4-quart sharps container

Photo courtesy Medegen Medical Products

Prybella also reported that sharps containers are being seen more frequently in locations outside of hospitals and healthcare facilities, both for convenience and safety reasons.

He said, "Alternate care is the fastest-growing segment of the healthcare industry including home healthcare. Medication is administered in those settings by both licensed professionals and family members. [The] practice is changing from using empty coffee cans and plastic milk containers to dispose of needles. There are more options available that are safer and approved for use and proper disposal. There is also a higher awareness in public spaces to retain and dispose of needles."

As an example of sharps disposal convenience, Prybella noted that Medegen has introduced a "small, personal sharps container that can be easily carried and used while limiting the distance traveled with the potentially dangerous sharps." The portable container is designed for medical and personal daily use.

Forecasting the future of the sharps market, Prybella opined, "I believe the sharps market will expand with smaller, more portable models and less with large, centrally located units. Large units will still be used in more industrial locations like lab testing facilities. There will also be more awareness of bloodborne pathogens."

In a scenario that embraces technology to potentially eliminate almost all sharps injuries, APIC's Moss suggested, "In the future, I think a large number, if not all, surgeries and sharps procedures will be performed robotically. Phlebotomy and IV insertions could also be performed by robotic devices, and laboratory tests could become more of a scanning procedure than the actual collection of blood. Ultimately, humans would have minimal or no role in the performance of sharps-related activities in healthcare." HPN

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Industry Experts Agree: Invest in EVS

2023 Environmental Services Resource Guide

by Janette Wider

Environmental Services (EVS) departments are not immune to the current tumultuous landscape in healthcare. Hospitals in the U.S. are under financial pressure, as well as pressure due to staffing shortages—all while recovering from the chaos caused by the COVID-19 pandemic.

Healthcare Purchasing News spoke with leading industry professionals about how the overall current landscape of the healthcare industry is affecting EVS departments, challenges, and solutions. They also shared their outlook for the future.

Strong teams keep patients safe

The importance of a strong EVS department should not be overlooked, stressed Doe Kley, MPH, RN, CIC, LTC-CIP, T-CHEST, principal infection preventionist for The Clorox Company. She said, "A strong EVS team is crucial when it comes to infection prevention and control—it is their job to eliminate the environment as a source of pathogen transmission. With the vast majority of pathogens being spread by contact with hands or surfaces, competent EVS teams are imperative to helping ensure patient safety."

Doe Kley

She added, "A high-functioning EVS team contributes to positive patient outcomes, such as reduced rates of healthcare-associated infections (HAIs), including those caused by antimicrobial resistant (AMR) pathogens. Preventing AMR infections is crucial, as the antimicrobial pipeline is dry—we are not entering, rather, we are in the post-antimicrobial era. EVS teams keep patients, staff, and visitors safe.

"While the CDC emphasizes hand hygiene, our hands can only be as clean as the environment around us. This makes EVS teams the first line of defense against the spread of pathogens and to safeguard patient environments—a vital and irreplaceable role."

Steve Baiocchi, Chief Operating Officer at Steriliz largely agreed, he said, "EVS interacts and touches every single department in the hospital. Having a strong team can help improve and sustain the highest cleaning and safety protocol measures for protecting patients and staff against HAIs."

Steve Baiocchi

Aaron Engel, Vice President Business Development, Fresh-Aire UV, added, "The truth of the matter is that the maintenance

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and engineering of facility staff are, in our perspective, just as important [as clinical staff] and sometimes there's a disconnect between what's happening in the walls. Walls, meaning inside the facility—the nature of the HVAC equipment, ductwork, air recirculation—that's taking place within a healthcare facility. Sometimes it is as if the walls are not aligned."

Engel added that what his organization finds even more important is discussion between the EVS team and other teams, like infection prevention, and engineering personnel, so they have a better understanding of what is happening outside and inside their buildings.

Continued education is key

Maryalice StClair

Maryalice StClair, CEO at Halosil International, mentioned that a strong team needs to be educated on best practices, she said, "It's important that people [in EVS departments] understand the rules, the regulations, and how best to use my company's products."

StClair also stressed the importance of continued education, she said, "I think that continued education of staff is money well spent, because the more educated the staff is, the more they're going to be able to make decisions and realize that just skipping a step here or there might not be the right thing. Or taking a shortcut might, in the long run, not be the right thing to do. I think that EVS has done a great job in terms of education in the past few years—they've put an emphasis on accreditation and ensuring everyone on the team is more aware of infections."

The Clorox Company's Kley commented, "Unfortunately, EVS departments continue to cope with the aftermath of the pandemic. Staff turnover continues to persist, leaving many EVS departments short-staffed and the remaining employees burnt out. These staffing challenges have had a domino effect—from impacting healthcare facilities' ability to successfully execute cleaning and disinfecting protocols, to training gaps for new employees, given time constraints.

To help EVS teams, it's important to address training gaps. Research has shown access to quality education and training increases staff retention. CloroxPro recently launched CloroxPro HealthyClean Introduction to Healthcare. Including only what busy EVS professionals need to know, this 20-minute module addresses both the need and nuances of cleaning and disinfecting in healthcare settings. This module is part of the larger CloroxPro HealthyClean training program, which offers the only industry-wide certificate program designed for frontline cleaners and managers accredited by American National Standards Institute National Accreditation."

"Unfortunately, EVS departments continue to cope with the aftermath of the pandemic. Staff turnover continues to persist, leaving many EVS departments short-staffed and the remaining employees burnt out. These staffing challenges have had a domino effect—from impacting healthcare facilities' ability to successfully execute cleaning and disinfecting protocols, to training gaps for new employees, given time constraints."

— Doe Kley, MPH, RN

Perpetual improvement

Fresh-Aire UV's Engel also mentioned staffing issues and budgets as one of the biggest challenges EVS departments are facing, but advancements in technology can help. He said, "Personnel has been an issue for the past two years or so. Budgets have always been an issue. So, it's really about trying to address needs while working within the confines of staff shortages and budget limitations."

Engle went on to explain that UV disinfection systems are a technology that can almost be considered, "install it and forget it." A lot of cleaning is labor-intensive and requires a lot of downtime that cuts into the operation but with UV disinfection, there's no labor required as far as operation.

Sterliz's Baiocchi agreed that implementing solutions to combat continued labor shortages is key. He said, "Fixed-mount UVC cleaning systems are simple to operate, and they are designed to provide rapid disinfection of a procedure or operating room in under two minutes, resulting in zero downtime between cases. Full-time EVS staff can attend to other things while the system rapidly disinfects a room for harmful pathogens, including viruses and bacteria."

The Clorox Company's Kley highlighted that EVS teams are starting to get the recognition they deserve, she said, "One improvement seen in the EVS space is the heightened awareness of the importance of not only hand hygiene, but also environmental cleaning and disinfection. This has been coupled with the recognition of the instrumental role EVS teams play in achieving healthcare facilities' goals of safeguarding the patient environment. The pandemic put a spotlight on the complexity and vitalness of EVS team jobs, and it has been warming to see this understanding continue. As a result of this, facilities have begun to make efforts to better prioritize the self-care of their staff."

"Moreover, during the pandemic, there was little time for oversight and workers tended to drift from their standard cleaning and disinfecting protocols," She stated. "However, we have seen healthcare facilities begin to reassess and ensure everyone is executing their cleaning and disinfecting protocols safely, effectively and efficiently."

As for the future, Halosil International's StClair said, "I think that there'll be renewed interest in combating HAIs. I think that the people's eyeballs really came off of the traditional offenders [due to the COVID-19 pandemic]—hospitals being penalized for by having too much *C. difficile*, too many surgical-site infections, things that are attributed to disinfection and environmental cleanliness. I think as focus comes back on those things and numbers come out, it'll be interesting to see what happened and what is happening post-COVID."

The Clorox Company's Kley stated, "Healthcare facilities and their respective EVS teams understand the need to be prepared for the next pathogen or pandemic. This means healthcare facilities need to address staff turnover and burnout, and invest in their EVS staff, particularly through training. Training not only helps retain staff, but also ensures that they have the knowledge and skills they need to clean effectively and efficiently long-term. Additionally, EVS now recognizes the importance of a horizontal approach to killing pathogens on surfaces, rather than the single-pathogen approach taken during the pandemic."

"EVS work is incredibly important, life-saving work, and healthcare facilities must continue to recognize this through active investments in education/training and high-quality products to improve the future of the EVS landscape, and to continue to keep the people in their buildings safe," she concluded. **HPN**

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STERILE PROCESSING

Shifting strategies and sites for reprocessing success

Experts say there is no one-size-fits-all approach

by Kara Nadeau

When it comes to sterile processing (SP), location matters, whether it is on-site, off-site, or centralized to one location. Industry experts share their insights on factors driving healthcare organizations to rethink their reprocessing strategies, trends in reprocessing location across acute and non-acute facilities, and tips for determining an optimal approach that supports safe and effective patient care.

Drivers of change

Inadequate space, limited instrument and device inventories, cost pressures, staffing issues, compliance failures—these are just some of the reasons why health systems and hospitals are reassessing their SP department structures and sites.

Aesculap Director of Consulting Services Bryan Stuart described the various factors he has seen in the market driving change:

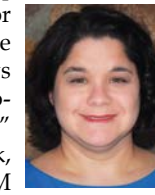
Bryan Stuart

"This shift is often prompted by challenges such as ensuring proper compliance across multiple sites, addressing staff and leadership shortages, limited space in existing locations, and the financial implications of eliminating redundant, underutilized, or overutilized equipment. Many, if not all, of these factors are compelling organizations to reassess their infrastructure and better align with current and anticipated future needs."

"The continued evolution of complex instrumentation, robotics, and more stringent IFUs for cleaning, disinfecting, and sterilization continue to push many SPDs beyond their ability to be compliant and successful given their current physical environments," commented Liz Carvill, Vice President, ORC Operations, STERIS Instrument Processing. "While centralizing makes the most sense to improve compliance, quality, staff productivity and engagement, it often requires capital investments that are either physically impossible to do in the current space and/or are competing with multiple other capital requests within the health system."

Liz Carvill

"Just like there are many different ways that sterile processing departments can be set up within a hospital or healthcare facility, there are many different ways that we see off-site processing being configured," said Mary Ann Drosnock, DHSc, CIC, CFER, RM (NRCM), AAMIF, FAPIC, Director, Clinical Affairs, Healthmark Industries. "It's very dependent on what works best for an organization, and what they've determined as part of their planning process and needs assessments."



Mary Ann Drosnock

Regardless of reprocessing location, it all comes down to patient care and safety, said Tiffany Darville, CSPDT, CRCST, CER, CIS, Certified Endoscopy Technician, STERIS Instrument Management Services. She stated, "The goal is to provide a safe environment for reprocessing that enables us to protect the integrity of our instruments and trays, so every patient will have the best quality of care."

Tiffany Darville

Room to grow

For some health systems, a change in reprocessing location is prompted by growing patient populations and the need to accommodate their care, noted Angela Carranza, Manager of Clinical Resources, Medline.

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"Historically, hospitals grew to tend to the evolving needs of their communities. Operating rooms were always accounted for and appropriately planned; however, other critical areas such as the supply docks, central stores, and even the sterile processing department (SPD) may be overlooked in the growth plan. In largely urbanized areas, hospitals may not have the physical space option to expand some of these indirect patient care areas. In those cases, we see a shift to off-site SPDs."

Angela Carranza

"One common theme that we do see is that by using a centralized and often off-site location, prime real estate within the healthcare institution is freed up," said Drosnock. "In the acute-care setting, this may mean that more operating rooms could be installed, which would create additional revenue for the facility."

A 'systemness' to SPD

Health systems are increasingly incorporating the concept of centralized reprocessing into their master planning efforts, noted Ash Crowe, Senior Product Manager, Healthcare, St. Onge.

"The idea of thinking holistically about the health system and how the entities within the system work together continues to become more prominent. In my opinion, both the cost of construction and the difficulties finding staffing for many locations are the big drivers to thinking about the consolidation of reprocessing locations. Moving to centralizing reprocessing isn't the right answer for all health systems, and there are many areas to consider: availability of space, future growth plans, current 'systemness' of SPD, technology, etc. But completing an evaluation to determine if it's an idea to pursue is a valuable effort for the health system."

Ash Crowe

All options are on the table

While there is no one-size-fits-all approach to reprocessing, John Kimsey, VP Operations, STERIS Instrument Processing, sees a common theme—healthcare organizations "are looking at all options."

He stated, "The drivers are usually financial, capacity for growth, and quality-compliant outcomes but the final decisions are unique to each situation. Centralizing reprocessing continues to be a common outcome when the physical ability exists with reasonable financial investment. For many, this means centralizing in an existing hospital's SPD, while others located in high-population and dense geographies often consider off-site reprocessing centers (ORC). Many often choose a combination of both options."

John Kimsey

"We are currently seeing a lot of changes coming within the Sterile Processing Department world," said Doug Brown, Director of Sales & Marketing, Torvan Medical. "It really depends on the hospital group and what they feel is best for their member hospitals. No matter what, whether they are renovating individual departments, centralizing to one main department, or going to a third-party facility, there is still a need to have a proper design with proper workflows."

Doug Brown

Facilities seeking design assistance with their reprocessing space can use Torvan Medical's Floorplanner software, a free tool offered on the company's website. According to Brown, all that is required is the floorplan for the department. From there, the user can add walls, windows, and doors, and drag-and-drop different models of equipment used within the department: sinks, casework, mobile tables, countertops, pass-throughs, washer/disinfectors, sterilizers, cabinets, workstations, carts, etc.

"Once a 2D version is complete, that can be turned into a 3D image that can be rotated 360 degrees to get a full view, and then finally as a full rendering to give a life-like view of the finished product," said Brown. "The departments that have used this have found it very helpful in making their final decisions on final products and workflow."

Trends in non-acute facilities

Stuart said there is a significant trend toward consolidating and centralizing non-acute areas into a single reprocessing site.

He stated, "Clinic support has been consolidated into acute facilities for their respective clinics, and there is a growing consideration to include them in centralized locations as well. A smaller proportion of organizations are investing in or, at the very least, exploring the feasibility of centralizing multiple sites into a single location or a completely off-site center."

"We see a variety of different ways that facilities are handling the reprocessing of devices in the non-acute setting," said Drosnock. "If they are part of a healthcare system, like an ambulatory care facility associated with hospital, and that hospital implements a centralized processing area, then their devices may be transported to that central location. Or they may go directly to the main hospital to sterile processing."

"That being said, it is still very common to see the non-acute settings reprocessing their own instruments," she added. "If they are associated with the healthcare system, often infection prevention (IP) will come and survey their processing areas or sterile processing may even do so. In my opinion, these areas should be looked at by IP and sterile processing management of the healthcare system. According to ST 79 and ST 91, we want to implement standardization across our different facilities for processing. So, they should be brought under that umbrella."

According to Carranza, the size of a health system plays a role. She stated, "For example, we see a blend of on-site and off-site reprocessing with hospitals that have multiple clinics or multiple procedure areas. An independent, acute-care facility that does not have other partnering facilities tends to reprocess just for their needs, whereas an acute-care facility within a health system may support the processing of their off-site clinic procedural areas."

"As health systems have integrated clinics into their operations over the past decade, many of them have centralized instrument reprocessing within their nearby hospital SPDs using courier services," noted Kimsey.

He described the drivers behind this move, "The clinics were typically not staffed nor physically compliant to perform the proper reprocessing tasks. With an increase in inventory to allow for 24-hour turnaround of their instruments, the move to centralization was usually a simple move. Often though, the clinics do not have the adequate budget to purchase the additional inventory inhibiting their ability to centralize."

Trends in ambulatory surgery centers (ASC)

Stuart pointed out how the ambulatory surgery center (ASC) market is diverse, with freestanding and hospital-operated ASCs providing different models to leverage resources within the market. He explained how these models play a role in how they structure reprocessing:

"Hospital-owned or planned facilities can be included within projection planning, offering additional ROI and flexibility for surgical growth while maintaining reprocessing standards. In contrast, freestanding or doctor-owned facilities tend to adhere to

the traditional model of on-premises reprocessing due to their inability to leverage volumes within a given market."

In Carvill's experience, most ASCs continue to maintain their reprocessing on-site, but some are turning to third-party off-site reprocessing services to support growing case volumes.

"This has been pressure-tested though in recent years with the push of orthopedics, joint and spine procedures to the ASC setting," she noted. "ASCs designed and built for the traditional 'small procedure' workloads are now realizing they have inadequate-sized SPDs for the higher-acuity surgical cases being performed by their surgeons. I don't believe we've seen an industry agreement yet on how ASCs are going to handle the reprocessing requirements."

"In some markets and health systems, ORCs have been utilized to help alleviate and decompress their SPD requirements," Carvill added. "The use of ORCs has allowed them to expand their surgical procedures. In other situations, ASCs are looking within their own health system for reprocessing solutions. The final solution may end up a hybrid with reprocessing performed both in the ASC and off-site for specific instrumentation such as vendor trays."

Trends in endoscope reprocessing

The impactful changes in endoscope reprocessing guidance contained within ANSI/AAMI ST91:2021, *Flexible and semi-rigid endoscope processing in healthcare facilities*, have prompted health systems and hospitals to reevaluate where they reprocess scopes, who performs reprocessing, and whether they have the necessary equipment to do it in accordance with the standards.

"Endoscope reprocessing has been a focal point for several years due to the complexity of reprocessing, the high cost of devices, and advancements in mechanical cleaning," said Stuart. "High-volume locations often reprocess within the unit, employing specialized staff and equipment."

Drosnock comments on how ANSI/AAMI ST91:2021 should drive greater standardization of endoscope reprocessing practices across health systems:

"In general, with the release of the new endoscope national standard, ST 91, from AAMI, we see that endoscope processing practices are improving. But we have a long way to go. Often, ambulatory locations are not following AAMI standards and therefore, may be processing to a different standard of care than SPD or the endoscopy department in the hospital setting. Again, ST 91 recommends standardization of practices across the different settings within an organization. So, as part of the risk assessment for endoscope processing, and the overall endoscope processing policy for the system, standardization should be a goal."

For Darville, performing endoscope reprocessing in the vicinity of where endoscopy procedures take place improves efficiency and supports on-time case starts, as opposed to reprocessing scopes in the SPD, which necessitates transport to/from procedural areas.

"Reprocessing scopes in the SPD means having to coordinate reprocessing times with patient cases for the day to ensure clean and sterilized scopes are available when needed," said Darville. "Then there are issues with preventing scope recontamination. SPD and endo are cousins—related but require two separate processes. While you can reprocess scopes in the SPD with another instrumentation, there is always the risk of cross-contamination."

"There is an increased risk for damage as well," Darville added. "With starting prices for endoscopes upward of $40k, we want to protect these assets. Keeping the

Allegheny Health Network's offsite SPD supports surgical volume growth

Allegheny Health Network (AHN) is a Pittsburgh-based nonprofit health system with 14 hospitals and nine surgery centers. An assessment by its sterile processing (SP) equipment provider STERIS found SP operations at its flagship Level 1 trauma hospital, Allegheny General Hospital (AGH), were over capacity.

"We are landlocked, there was nowhere to expand, and it's expensive because we're in the middle of downtown Pittsburgh," said Hope Waltenbaugh, AHN's Vice President Perioperative Services. "The only way we could work this out was to get some trays out of the building."

Hope Waltenbaugh

STERIS delivered a Mobile Sterile Processing Unit to the AGH campus and built a semi-permanent reprocessing center around it. Within a week of opening, the offsite center processed over 200 trays.

Based on a STERIS assessment of AGH's trays, the health system was able to remove unnecessary items, so they had fewer to reprocess. This freed up capacity in the offsite center so the health system could reprocess trays from its ambulatory surgery centers (ASC) there as well.

"Because the ASCs are such small spaces, it's challenging for them to manage trays for total joints and robotics," noted Waltenbaugh. "Moving these trays to the offsite gave them the opportunity – and room - to grow these more complex cases."

Waltenbaugh described how the offsite has become their "savior" during crisis situations:

"We had to shut down an SPD at one of community hospitals for eight weeks to replace an air handler. By moving this facility's trays to the offsite center, we didn't have to cancel a single surgery. We also had an emergency last summer where a humidity issue compromised all packs and trays in another SPD. We off sited it all and within one week had over 2,000 trays sterilized. In both situations, without the offsite reprocessing center we would've been shut down for weeks."

Waltenbaugh's advice to other health systems when considering this approach to reprocessing:

"There is a cost, so organizations must weigh that cost against the benefits. What is the price of having perfect surgical trays, on-time for surgical procedures?"

Allegheny Health Network's off-site SPD

entire endoscope department separate, including reprocessing, can help us avoid these issues."

"We are definitely seeing a consolidation of endoscope and high-level disinfection to centralized locations within hospitals and health systems," said Kimsey. "The international attention to the difficulties in cleaning scopes, and resulting negative patient outcomes, pushed the industry to improve both the scope design as well as the health system's ability to effectively clean and reprocess the scopes. Some health systems have chosen to centralize within their SPDs if they are able to handle the volume with the required equipment while others have either created a centralized scope center and/or utilized their existing endo reprocessing area."

"For many though, their physical environments are not conducive to centralization while meeting IFUs and ST91 requirements, and thus, find themselves considering alternatives," he added.

Scope reprocessing off-site

"I haven't worked with any hospitals taking all endoscope reprocessing off-site, but I have seen more hospitals looking to centralize high-level disinfection (HLD) to a few select locations across the hospital instead of a very distributed HLD model," said Crowe. "This has allowed hospitals to have more control over the process and the validity of the processing being done."

"Some consolidation has been observed within a facility or among closely connected facilities," said Stuart. "However, due to the significant expense associated with inventory, there has been little to no adoption of centralization strategies that require transportation over long distances of flexible endoscopes."

"Off-site reprocessing of scopes remains a more difficult solution but collaboration with the OEMs and others are developing to address and provide a compliant solution," said Kimsey. "Health systems fortunate to be building new reprocessing areas have the best opportunity to centralize their flexible scope processing in properly designed three-room flow departments with pass-through AERs, liquid sterilization, and/or low-temperature sterilizers."

Device type impact on reprocessing

Reprocessing strategy and location should also consider the type of instruments and devices involved. The constant struggle between risk and cost in healthcare, combined with ongoing staffing issues, translates into tough decisions on choosing single-use or reusable products.

To improve reprocessing efficiencies and drive optimization in off-site clinic procedural areas, Carranza said it's crucial to evaluate disposable instrumentation options.

"While SP professionals are the subject matter experts in the core foundation of decontamination, disinfection, and reprocessing, taking on added reprocessing responsibility across multiple areas within their acute facility plus off-sites, can lead to increased costs in labor, transport, along with generalized inefficiencies when servicing core areas, such as the OR."

"By analyzing your instrument tracking data, you can uncover high-reprocessed instrument trays that are not physician-referenced," she added. "These trays are great options to move to disposable instruments for the off-site, non-acute physician clinics. This analysis can help alleviate the pressure in the SPD to improve efficiencies for the OR-specific instrument reprocessing."

Lars Thording, Vice President of Marketing and Public Affairs for Innovative Health, said he has seen more devices labeled "reusable" being reissued under the "single-use" label, which adds complexity to on-site reprocessing.

Lars Thording

"These products obviously need to be moved from on-site reprocessing to reprocessing by a company that has FDA clearance to reprocess," Thording noted. He described how many reusable products are being moved off-site as well:

"Hospitals are increasingly recognizing that SPD's limitations can mean Joint Commission requirements are compromised if reusable devices are reprocessed on-site. Reusable connector cables are a good example. Most connector cables are reprocessed on-site, but different manufacturers' cables come with very different IFUs that imply different cleaning requirements and different numbers of cycles. Should the Joint Commission see devices with different IFUs treated with the same process in on-site reprocessing, the hospital could face some grim oversight situations. Add to this that connector cables vary in number of uses, but most SPDs do not have the ability to track number of uses, and consequently, cables are simply used until they fail – with substantial regulatory, patient risk, and operational costs involved."

"Among our partner hospitals, we have seen up to 40 percent transition in their cable-reprocessing activities off-site, where they can be cleaned according to IFUs, tested before use, and discontinued when hitting max cycle," Thording added.

Four key factors for reprocessing site success

Randalyn Walters, CRCST, CIS, CER, CHL, C.S.P.D.T, C.A.S.S.P.T, BLS, AAS, Clinical Education Manager U.S., Belimed, collaborates with healthcare organizations across the country to help them optimize their sterile processing operations.

Randalyn Walters

"I am a firm believer that there's no one-size-fits-all solution for reprocessing," she stated.

Here are her four recommended key factors for consideration when considering a shift in reprocessing strategy.

1. Specialty: "Think about the specialties and procedures your SPD team will be supporting and providing for, that will dictate your reprocessing site requirements. Consider tray size, inventory, and instrument complexity. For example, reprocessing loaner trays for neuro, spine or total joint cases is very different from reprocessing a simple pain clinic foot tray."

2. Logistics: "Whether you are thinking about centrally processing in one location or building an off-site center, it's all about logistics. If you go off-site and don't have a transport plan, the project could bomb. Be sure to consider traffic and its impact on transporting trays. Your centralized reprocessing location might be in a 12-mile radius of the sites it serves, but if there are six school districts in that area, your drivers will have to contend with 7 a.m. and 3 p.m. school bus traffic."

3. Staffing: "While healthcare organizations budget for reprocessing equipment, they often don't budget for full-time employees (FTE) to run their sterile processing operations. Think of a facility renovating its existing SPD or building a new one to accommodate growing volumes but it only has 10 FTEs to handle all the extra work. Or one that is building an off-site reprocessing center but hasn't budgeted for the additional Environmental Services (EVS) employees to clean it. Resource planning and budgeting is critical to success."

4. A multidisciplinary approach: "A multidisciplinary team can make or break any reprocessing initiative. You need a champion in each function who will advocate for the project and support it all the way through." Here are the stakeholders Walters recommends engaging from the beginning:

- Budget and finance
- Infection control (IC) or prevention
- Surgeons or other physicians who are provided for
- Quality or risk management
- Sterile processing professionals, leaders, and frontline workers HPN

Cleaning your sterilizer

by Stephen M. Kovach

Q "We do some daily tasks to keep our sterilizer clean. We are now being asked to clean the sterilizers (chamber) with brushes and a chemical. I thought that was the responsibility of the sterilizer company. What are your thoughts?"

A First, we need to understand that sterilizers come in many sizes and types—from tabletops to floor loading—and all of them require some type of inspection and maintenance (i.e., daily, weekly, quarterly, and yearly). This can be performed by many different people, depending on the difficulty and training needed, to accomplish the desired task. In this circumstance, we are talking about a clean sterilizer.

From the wording of your question, I would consider this routine care, and your management team wants to add another task (duty) to your present work responsibilities concerning the care of your sterilizer.

This type of activity (cleaning the sterilizer wall/chamber) would be found in your specific sterilizer's user manual/instructions for use (IFU). It might list daily activities, such as a) wiping the seal, b) inspecting for cracks or damage to the seal, c) looking for staining in the chamber, d) cleaning the drains, and e) other tasks. Some of these tasks might be done at a different frequency. The IFU should state who (i.e., the user or someone else) is responsible for these tasks. It could also include daily inspection of the sterilization racks or carts. All tasks, regardless of who performs them, should be documented as having been performed.

Now, concerning the second part of your question. In 1975, my first position was within Central Sterile as a sterilization orderly. I learned to clean the inside of the sterilizer chamber with a good instrument cleaner, then rinsed with distilled water, and dried the chamber with a non-linting cloth. We eventually made our own cleaning solution consisting of one-part vinegar to one-part water followed by a distilled water rinse. It was effective.

What you also need to understand is that the Association for the Advancement of Medical Instrumentation (AAMI) recently released AMENDMENT 3 (A.3:2020) to Section 12.4 of ANSI/AAMI ST79:2017 Comprehensive guide to steam sterilization and sterility assurance in healthcare facilities. If you have not already done so, my suggestion is to purchase and review it, as it will be very helpful.

AMENDMENT 3 deals with the topic Modification of content pertaining to frequency of cleaning for routine care of sterilizers for sterile processing areas in healthcare facilities. The proper care and maintenance of a steam sterilization apparatus is a crucial factor in providing appropriate instrument care. It also ensures the safe and effective operation of any type of steam sterilizing apparatus, sterilizers, carts, and racks, which should be cleaned frequently (ideally daily, but at least weekly).

When cleaning a sterilizer, it is important to understand the composition of the sterilizer's wall/chamber. Today, stainless steel is what most everyone uses, but older sterilizers were made of cold-rolled steel with a nickel clad. Knowing helps if you use chemical versus a bead-blasting method for cleaning.

You asked for my opinion on cleaning the sterilizer chamber. I do not have an issue with medical device reprocessing staff doing routine cleaning of their sterilizer wall/chamber (if properly trained) and with the proper type of supplies. Based on my observations, departments that do not make cleaning part of their routine program have some very dirty walls/chambers. The result is that many spend unnecessary money with vendors for a "deep cleaning," when they could have avoided the mess with consistent routine cleaning.

If you do start cleaning your sterilizer, here are some basic steps to think about as you develop your policy:

- Make sure you are properly trained on your specific sterilizer(s).
- Some departments have different makes and types.
- Ensure you have correct supplies.
- Turn off the sterilizer and cool to room temperature.
- Clean the drain screens.
- Place an out of order/service sign on the sterilizer while you are cleaning.
- Document your activity per policy.
- Having a clean sterilizer wall/chamber is important. An inside clean sterilizer may lead to less problems; makes it easier to identify staining (an early warning sign of possible steam quality issues) if it starts to appear; and an early resolution of issues.

As I say, "Keep it clean." In this instance, it is the sterilizer's walls/chambers. Just like anything else, if you take care of it from the start, then it will last a long time. HPN

See pictures below of bad sterilizer walls.

References

1. V. Mueller. (1990). Atlas of Surgical Instrument Care: A comprehensive program for cleaning and sterilization of surgical instruments. Baxter Healthcare Corporation.

2. STERIS. (1998, March 26). *Manual STERIS Sterilizer Service and Maintenance Procedures; Amsco EAGLE SERIES 3000 Gravity and Vacamatic Sterilizers.* (V. 1; P-129359-452).

3. AAMI (2020). ANSI/AAMI ST79:2017/A3:2020: *Comprehensive guide to steam sterilization and sterility assurance in health care facilities, AMENDMENT A.3 Modification of content pertaining to frequency of cleaning for routine care of sterilizers for sterile processing areas in healthcare facilities [Sec. 12.4 Routine Care of Sterilizers].)* (2020). Arlington, VA: Association for the Advancement of Medical Instrumentation.

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LEARNING OBJECTIVES

1. *Articulate the reasons for minimum dry times within device instructions for use*
2. *List three applications for moisture-absorbent devices*
3. *Identify key considerations when selecting and using moisture-absorbent devices*

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Moisture Absorption Devices …

No This Is Not a Wet Pack Article

by Delores O'Connell

Drying steam-sterilized items is more complex than it first appears. Effective drying happens by following the instructions for use (IFU) created for the devices used during the process. This requires sterile processing professionals to balance and reconcile several instructions including that of the devices, wraps, pouches, container systems, sterilization accessories, and the sterilizer. Despite full reconciliation of all instructions, residual moisture may remain in and on some packages creating a wet pack situation. But this is not a study guide on wet packs. This is a study guide on optimizing drying with moisture-absorption devices.

Minimum dry times

Residual moisture can be created through a variety of system faults and failures. However, a perfect system could still have moisture events. When moisture events happen, the first place to look is the dry time.

Steam sterilizers dry items by drawing a vacuum at the end of the sterilization phase. During this time, the sterilizer's vacuum draws out the water vapor and steam from the packs. The combination of the vacuum and hot items in the load evaporates the condensate within the items drying them.

The instructions for use of the device lists the minimum dry time needed to thoroughly dry the items. This dry time is validated by the original equipment manufacturer (OEM) of the device as a single device within a specified packaging material. If the device is part of a set supplied by the manufacturer, such as an orthopedic set, the dry time for the full set including the tray and any containers is validated. The sterilization load configuration that the OEM validates is different from that of a healthcare facility.

Photo courtesy: STERIS

Facilities can use a variety of packaging options. They can process the device as a single device, include the device tray having many devices, or place it within a multi-layer set. The load configuration may vary from a small chamber sterilizer with a couple of packs, to a large floor-loading sterilizer that might allow 25 sets up to 25-pounds each having a total load weight of 625 pounds. The combination of packs from sterilization pouches to containerized items can vary from sterilizer cycle to sterilizer cycle. The OEM provides a minimum dry time with the expectation that the facility will verify that the minimum dry time is acceptable for their process and, if necessary, lengthen the dry time to achieve dryness.

Before lengthening the dry time, it is important to ensure all items are compatible with a longer dry time, the sterilizer can support longer dry times, and the impact that running cycles with longer dry times can have on productivity and utility usage.

Managing condensate to promote drying

Lengthening dry times may not be possible for many facilities. The extended drying needed may damage the devices or packages and create delays in processing that impact the operating room schedule. A better solution is to manage the condensate produced to improve drying.

Three things improve drying. The first is heat. Applying heat to condensate can increase the evaporation rate, allowing things to dry faster. This is done during the drying phase as the devices are kept hot during drying.

The second is by removing the water vapor from the immediate area of the condensate. As water evaporates, its crowds the air space around it. Too much water vapor and there isn't enough room for the evaporating water. The evaporating water stays trapped in the condensate. The sterilizer's drying phase actively removes water vapor with its vacuum. This active removal continues as items are cooling in a lower-humidity environment. The hot moist air within the items rises out, replaced with cooler drier air.

The third thing that improves drying is increasing the surface area of the condensate. As water evaporates, water molecules must exit the condensate droplets. The surface area of the droplet is like a doorway. The smaller the surface area the smaller the doorway. Few water molecules can leave at one time, waiting their turn at the door. Increasing the surface area makes the doorway bigger, allowing more water molecules to exit at one time and speeding up drying.(See Figure 1.)

Figure 1 - Drying can be improved by applying one of three elements.

Heating condensate and changing how water vapor is actively removed within the sterilizer's dry time is not easily accessible to healthcare facilities. However, managing moisture by increasing the surface area of the condensate is easy for healthcare facilities. All that's needed is a moisture-absorbing device designed for this task.

How does moisture absorption improve drying?

Moisture-absorptive devices work on two principles. The first principle is that water evaporates faster with greater surface area. The second principle is two things combined, absorption and wicking. Absorption is the ability of a material to take up liquids into itself. In this case, the liquid is water. Absorptive devices are designed with materials that attract and soak up water. As the water is absorbed, the material moves the water along the fiber network within it. That movement is called wicking. Absorptive materials absorb and then spread the water over the many fibers within it, spreading out the water and increasing the overall surface area of water exposed to the air. This significantly increases the rate of evaporation.

Typically, natural materials like cellulose or cotton are used to construct moisture-absorbent devices. Natural fibers have an affinity for water and good wicking properties. Synthetic materials naturally repel water. When synthetic materials are used as an absorptive material, they are specially treated to increase the material's absorption and wicking capabilities.

When should moisture-absorbent devices be used?

There are three situations where moisture-absorbent devices work well. The first involves complex multi-component devices; instruments designed with a significant amount of weight at concentrated areas; and devices with deep concave areas or broad angles. These devices can create condensate pools directly beneath or within the concave surfaces. Properly placed moisture-absorbent devices can spread the localized condensate over a larger surface area, speeding up the drying process.

The second use for moisture-absorbent devices comes with trays and devices made of polymers and silicone that do not transfer heat well, impeding evaporation of pooled condensate. The increased surface created during absorption can compensate for the poor heating characteristic of these materials.

Unreliable steam quality is the third use for moisture-absorbent devices. Steam obtained from a third party or inefficient steam-generation systems may, at times, create steam with a higher moisture content

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

than acceptable. Typically called wet steam, the steam overproduces condensate in both the items undergoing sterilization and the sterilizer chamber. The resulting internal and external moisture is best managed with moisture-absorbent devices both in the items undergoing sterilization and on the sterilizer racks holding the items.

There are situations in which moisture-absorbent devices will not help drying. When the pooling condensate is caused by improper assembly, moisture-absorption devices cannot compensate. A common assembly error is packaging heavy metal instruments within a small tray, creating a situation in which the high volume of condensate produced doesn't drain fast enough through the bottom of the small tray, creating a pool of condensate that is difficult to dry. Adding a moisture-absorbent device may help dry the tray, but the small tray in combination with the moisture device and heavy metal instruments could impede steam, preventing sterilization.

Choice and use of moisture-absorption devices

Moisture-absorptive devices are typically sheets of material that are placed directly on a sterilizer rack or in packages to be steam-sterilized. They often have direct contact with the medical instrumentation. As such, it is important that they are intended for this use. Moisture-absorptive devices should be composed of a non-linting or low-linting material and be non-toxic. Dyes and pigments should be color-fast, meaning that they will not transfer to the instruments that they touch. They should also be compatible with, and validated for, the specific steam-sterilization cycles that they will be used in.

Most commercially available moisture-absorbent devices are single-use disposable items. Reusable devices will change with reuse, reducing the absorption and wicking properties each time. When using reusable moisture-absorbent devices, ensure that procedures are in place for inspection and criteria for disposal listed.

Moisture-absorptive devices come as sheets. Some are placed on sterilizer racks while others are included within the packaging and are often referred to as tray liners. Tray liners can have different absorbencies and be recommended for different situations. For example, a multi-layer orthopedic set will create a substantial amount of condensation secondary to size, configuration, and weight. In this instance, a high-absorbency or wicking material would be used. A small microsurgical set would create less condensate and require a light absorbency product.

Figure 2 - Some tray liners placed between the tray and wrap may offer corner protection.

Tray liner placement varies with the items being sterilized and the packaging configuration used. Typical placement is on the floor of the tray or basket directly beneath the instrument. Tray liners should lay flat on the bottom but may curve up the side walls of the tray or basket. Tray liners should not be used to wrap instrumentation or be placed on top of instrumentation. (See Figure 2.)

Silicone mats should not be used as these can prevent condensate from reaching the absorptive material. When a silicone mat is used, the tray liner should be placed between the tray and the sterilization wrap or beneath the basket on the floor of the container base. Always confirm placement of the tray liner with the tray liner's and packaging material's instructions for use. Some container systems may contraindicate the use of tray liners or specify where tray liners should be placed.

Some tray liners may double as a corner protection device for wrapped sets. These may be used in place of synthetic corner protectors. Always follow the manufacturer's instructions for selection and proper use of these products.

Product evaluation

Adding tray and rack liners to the sterilization process should help drying of the load. They can also inadvertently create challenges to the sterilization process. It's important to include an evaluation of the moisture-absorbent products before adoption. Items to consider include:

- Validated and listed sterilization cycles.
- Compatibility with the sterilization wrap and rigid container systems at the facility.
- Trial results at the facility. Were items dry? Was staining or discoloration experienced?
- Availability on purchasing contracts.
- Does it solve the condensate problem?

Through careful review and adoption, moisture-absorptive devices can provide the drying solution needed for the heavy condensate conditions experienced by many sterile processing departments. HPN

References:

1. The Association for the Advancement of Medical Instrumentation (AAMI) (2018) ANSI/AAMI/ST8:2013/(R)2018 Hospital steam sterilizers. AAMI. Purchase at aami.org

2. The Association for the Advancement of Medical Instrumentation (AAMI) (2018) ANSI/AAMI/ST77:2013/(R)2018 Containment devices for reusable medical device sterilization. AAMI. Purchase at aami.org

3. Canan Saricam, PhD. (2015) Absorption, Wicking and Drying Characteristics of Compression Garments Journal of Engineered Fibers and Fabrics 10(3) pg. 145-154 https://journals.sagepub.com/doi/pdf/10.1177/155892501501000309

4. Marcel Dion Wayne L. Parker (2013) Steam Sterilization Principles & Co-mmon Mistakes Using Autoclaves. Pharmaceutical Engineering November/December 2013 https://ispe.org/pharmaceutical-engineering/november-december-2013/steam-sterilization-principles-common-mistakes

Delores O'Connell, LPN, BA, AGTS, ASQ-CQIA CRCST, CHL, CER, CIS, spent 22 years as a manager of sterile processing, surgical inventory/SCM, and medical equipment logistics for a multi-hospital system in the Midwest. She supports the education and training of infection control, sterile processing, surgical, and endoscopy professionals to help them achieve best practices. O'Connell served as a subject matter expert for the SGNA Gastroenterology Nursing Core Curriculum 6th Edition, and the IAHCSMM Central Service Technical Manual 8th Edition. O'Connell holds a Bachelor of Arts in Business Management and Computer Science from the University of Illinois.

CONTINUING EDUCATION TEST • JULY 2023

Moisture Absorption Devices …
No This Is Not a Wet Pack Article

Circle the one correct answer:

1. **Why do instrument manufacturer's give minimum dry times?**
   A. Sterile processing departments only process single instruments
   B. Sterilization pouches cause problems with drying
   C. The manufacturer does not use the same load configuration
   D. Instruments do not need to be dry

2. **Which is a concern of increasing the dry time?**
   A. It stays hot longer and requires additional cool down time
   B. Dry time can be as long or short as the department determines is appropriate
   C. Wrappers, containers and sterilizers may not be compatible
   D. The instructions for use lists minimum dry times

3. **Which is used to speed up drying of steam-sterilized items?**
   A. Increasing the condensate's surface area
   B. Shortening the dry time
   C. Warm the load prior to sterilization
   D. A hair dryer

4. **Which properties are necessary in a good moisture-absorptive device?**
   A. Rapid heating and sponginess
   B. Temperature and thickness
   C. Unification and uptake
   D. Absorption and wicking

5. **This is the movement of water across a fiber matrix?**
   A. Wicking
   B. Absorption
   C. Travocity
   D. Vector Force

6. **When should a moisture-absorbent device be used?**
   A. When placing many heavy metal mass instruments in a small container
   B. When wrapping a towel pack
   C. To reduce the dry time in the sterilizer
   D. For unreliable or borderline steam quality

7. **What is meant by "color fast?"**
   A. Dyes and pigments can rinse out of the fabric
   B. Dyes and pigments stain soft materials
   C. Dyes and pigments are non-toxic
   D. Dyes and pigments will not transfer to other items

8. **When should a moisture-absorptive towel be used in a tray?**
   A. When a tray liner is not available
   B. When instruments need to be secured
   C. When a heavy metal instrument could break through the wrap
   D. When instructions for use are provided by the manufacturer

9. **Which statement is false about tray liners?**
   A. They come in different absorption volumes
   B. They go between the instruments and the tray bottom
   C. They can be used to wrap instruments
   D. Some can provide absorption and corner protection

10. **Moisture-absorbent devices do not need to be trialed because they are simple devices.**
    A. True
    B. False

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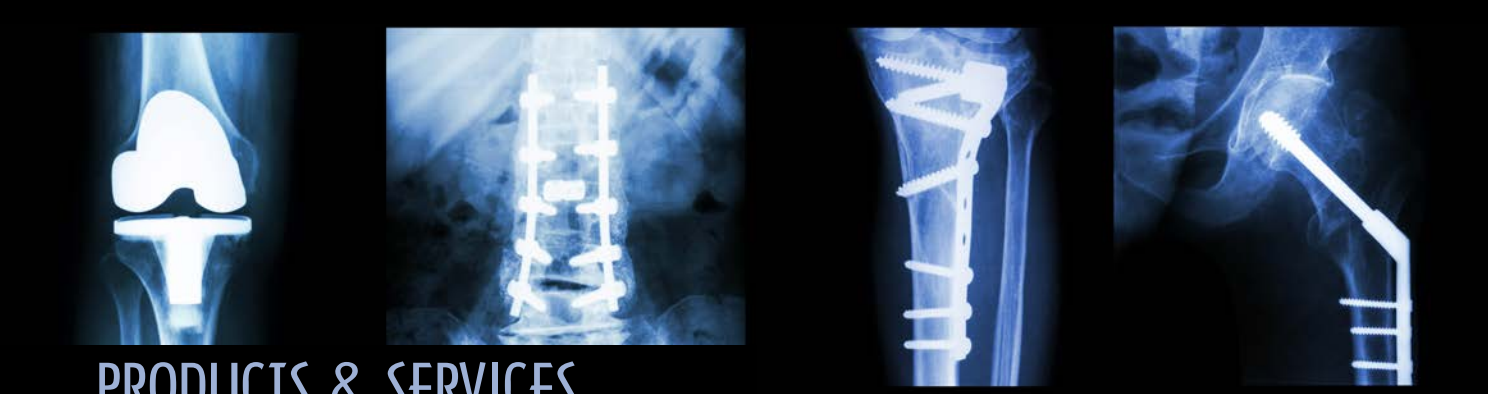

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Orthopedic strategies: Deference to physician preference

Supply chain need not be supplanted by implanted products.

by Rick Dana Barlow

To borrow some literary cues from author Ernest Hemingway, the notion of supply chain working with orthopedic surgeons to procure needed products and supplies resembles the fictional character Harry and his quest to reach the mountain summit in "The Snows of Kilimanjaro."

In an idyllic patient-focused clinically driven business environment, supply chain and orthopedic surgeons partner harmoniously to obtain and use what they deem necessary to fix and heal the patient. Although the partnership stops just short of the quirky and quixotic nature of a buddy-cop film or television show, the clinical and economic value that it brings to the healthcare system and the patients served motivates one wonder about why it took so long to materialize.

Unfortunately, professional relationships either resembling or moving toward this model may be more the exception than the rule as an antagonistic chasm between clinical and business interests historically has been deep and wide with orthopedic product suppliers hopscotching across the gorge.

Orthopedic surgeons, by and large, see Supply Chain as more concerned about the bottom line, costs and pricing that seemingly supersedes the delivery of high-quality patient care. They'd rather force clinicians to change how they perform surgery with unfamiliar products to satisfy a contractual obligation without clinician support in any way.

Supply Chain, on the other hand, by and large, see orthopedic surgeons—conceivably corralled by Operating Room directors—as elitists who simply want their preferred devices, products, and supplies regardless of cost and under the impression that the hospital will slash budgets elsewhere to make up the difference and remain afloat.

Several issues actually hinder the arguments of either side. They include all the treats, trinkets and trips that vendors still shower on clinicians to curry favor. And while tightening ethical rules may have slowed the torrent to something closer to a sprinkle or trickle, favors still occur throughout the profession. Further, select vendors still recruit clinicians to "design" or "endorse" certain products for sale, which can generate healthy residual payments to those clinicians. Some vendors also allow their reps (passively or otherwise) to sidestep established contractual relationships and credentialing procedures by directly selling "trunk stock" through the back door in bill-only transactions that may not have internal OR approval or even awareness and acknowledgement by Supply Chain.

Meanwhile, less experienced, forward-thinking and seasoned Supply Chain managers may feel the C-suite is forcing their hand to crack down on costs by using product contracts as a clinical cudgel to get surgeons to toe the line.

Yet a growing number of healthcare organizations operate on the spectrum in between these two extremes as indicated by several supply chain trends that have developed and grown throughout the last few decades.

To wit: Supply Chain (capitalized to represent the department and not the function) recruits physicians to its team to serve as a bridge linking business and clinical interests; embraces and promotes evidence-based value analysis in all product and service decisions that heavily incorporate physician input; implements mutually beneficial cost-saving and revenue-sharing programs with the aim to fortify the bottom line as well as reinforce high-quality patient care delivery; and facilitates a trustworthy consulting relationship between the two sides under the recognition of a united endgame even if the ongoing journey meanders a bit.

So how well are orthopedic surgeons and supply chain strategically and tactically working together? Reviews remain mixed.

Looming challenges, obstacles

Operating independently of Supply Chain on business matters (versus clinical matters more directly involving patients), orthopedic surgeons face a flurry of hurdles.

One involves visibility, the lack of which can lead to deleterious economic consequences.

Brian Howard

"Surgeons don't necessarily have the same visibility in the market as supply chain staff, and without guidance might try to source a product from an area that is backlogged, creating delays or purchase from a manufacturer that uses lower quality materials than the contracted product, potentially impacting outcome quality," indicated Brian Howard, director, contract services, Vizient Inc. "In addition, purchasing off contract can negatively impact the total cost of the case. Not

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only does it impact that particular case, but it can also affect the provider's requirements for overall contract compliance, thereby eroding the total contract value.

"Supply chain staff work tirelessly with their supplier partners to maintain purchasing commitments and without proper dialogue, a surgeon could unwittingly diminish price savings by utilizing a non-approved product," he continued. "A surgeon who is interested in sourcing/purchasing off-contract products should work with his or her organization's supply chain to balance the need for new products while maintaining contract compliance."

Without supply chain's support, orthopedic surgeons can be challenged in having the appropriate market intelligence and full information on a product category/segment, including the full scope of suppliers as well as new, innovative products they're not currently using, according to Karen Niven, senior director, Operational Excellence and Clinical Value Analysis, Premier Inc.

Karen Niven

Yet, product shortages and backorders have also become more pervasive in today's environment, Niven continues. "With supply chain's involvement, clinicians can gain a better, and more immediate, understanding of ongoing product disruptions and shortages, mitigation strategies, what clinically acceptable alternatives may be available, and overall product category health," she noted. "Supply chain teams can also help orthopedic surgeons evaluate suppliers and distributors—choosing to contract with those that provide transparency on product and raw materials sourcing locations, safety stock, safety records and rapid replenishment capabilities."

Niven encourages healthcare organizations to set up a clinically integrated supply chain "to enable providers to recoup savings, collaborate with suppliers and obtain the high-quality products, supporting clinical evidence and the supplies necessary for outstanding patient care delivery."

Suzanne Smith, RN, solution advisor, GHX Lumere, offers a more fundamental obstacle orthopedic surgeons face when they don't rely on supply chain expertise for business and economic decisions.

Suzanne Smith

"The biggest challenge for surgeons is time," Smith said. "Since time is a finite resource surgeons must strike a balance between caring for patients and taking care of business. Both are direct contributors to healthcare equity within the communities they serve. Partnering with Supply Chain allows certain parts of the process, such as sourcing, contracting and purchasing, to be delegated and managed by those whose expertise it is. Supply Chain professionals can also coordinate the evaluations of medical devices which provides valuable feedback in product decisions."

Summed Jim Ferch, CEO and co-founder, Simplify OR, which makes software to manage medical device implants: "Each has specialized knowledge they bring to the table, surgeons and supply chain," he noted. "Each can learn and grow through a collaborative journey of continuous product/process improvement."

Working together

Even though the litany of challenges and obstacles should encourage orthopedic surgeons and supply chain professionals to collaborate creatively to ensure clinicians have what they need to deliver patient care while minding cost concerns for the organization that allows them to practice, sometimes the two groups must reach mutual compromises.

"Having a simple process with clearly defined expectations and excellent communication is the winning formula," GHX Lumere's Smith assured. "This builds trust between the surgeons, OR directors, supply chain and suppliers. Being aligned as a stakeholder group and understanding what each will contribute to the process facilitates speed to value and limits unexpected compromises from occurring."

Premier's Niven points to value analysis as the unifying strategy and tactic.

"A strong value analysis process, bringing clinicians and supply chain to the table, can provide decision support around product/services cost, quality, safety, outcomes and reimbursement," Niven noted. "Practices that help reduce waste—the way we do in our own homes—can be used in the value analysis process as well. As one example, supply chain teams can work with physicians to focus on preference cards, remove unnecessary items and discuss practice variations.

"Teams can also dedicate a steadily increasing portion of a value analysis agenda for proactive assessment of critical procedures or Diagnosis-related groups (DRGs), examining products used within a procedure when issues with cost, quality, safety or outcomes are identified—and if revisions are necessary based on shared intelligence, data and best practices," she added.

Both surgeons and supply chain professionals need to be properly prepared before either can act and work together, according to Vizient's Howard.

Jim Ferch

"First and foremost, all parties must have a seat at the table with clear objectives set for the organization," he said. "Surgeons need to understand their cost per case. Representatives from the supply chain need to explain their supplier compliance requirements to operating room staff. Aligned incentives between physicians and supply chain is critical. Demonstrating that one surgeon's total-knee arthroplasty averages $800 to $900 more per case than their colleagues' with similar outcomes can start a great discussion on what that surgeon is doing differently than his or her peers. It's entirely possible that the surgeon is unknowingly using a non-contracted product at a higher price point when he or she could be using a product that is just as safe and effective at negotiated pricing."

That's where computer software and data science comes into play, Simplify OR's Ferch insists.

"Each has at their disposal a faculty of synthetic and creative ideas with which to work together to solve all the barriers of a collective agreement," he noted. "There doesn't have to be any compromise relative to quality of product that they consider if they mutually agreed to the idea of mutual gain."

Beyond product preference

Yet data can be a stumbling block that prevents effective collaboration between surgeons and supply chain, according to Smith.

"Organizations which have had the most success working on orthopedic initiatives spend time up front making sure their data is accurate and actionable," she said. "They analyze supply chain and [electronic health record] data to ensure the best results financially and clinically. Looking at data sets through diverse points of view avoids potential delays if not all factors are considered up front. Educating clinicians and suppliers about policies and expectations and taking swift action when needed is essential to vendor partnerships."

Ferch points to data's location as potentially problematic.

"Data is stratified between enterprise systems, or enterprise silos," he said. The electronic health record for structured patient demographics and financial services data, the ERP has structured item data demographics and financial data, and the vendor contract files, where agreed to and structured pricing over a term is maintained.

"Supply chain needs to take a holistic approach and merge these siloed systems

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to develop a landscape of product strategies and value propositions with their surgeons," Ferch added.

Howard emphasizes the mutual accessibility of data as buttressing collaboration between surgeons and supply chain that covers orthopedic products.

"A key challenge facing supply chain staff is the lack of robust cross-reference capabilities for orthopedic products," he noted. "Providers look for alternative products to bolster supply assurance. Supply chain staff must work proactively with both device manufacturers and clinical teams to fully understand what products are needed and what products can be offered. This increases potential conversion opportunities for price savings and provides a backup plan in the event of a manufacturer backorder or recall."

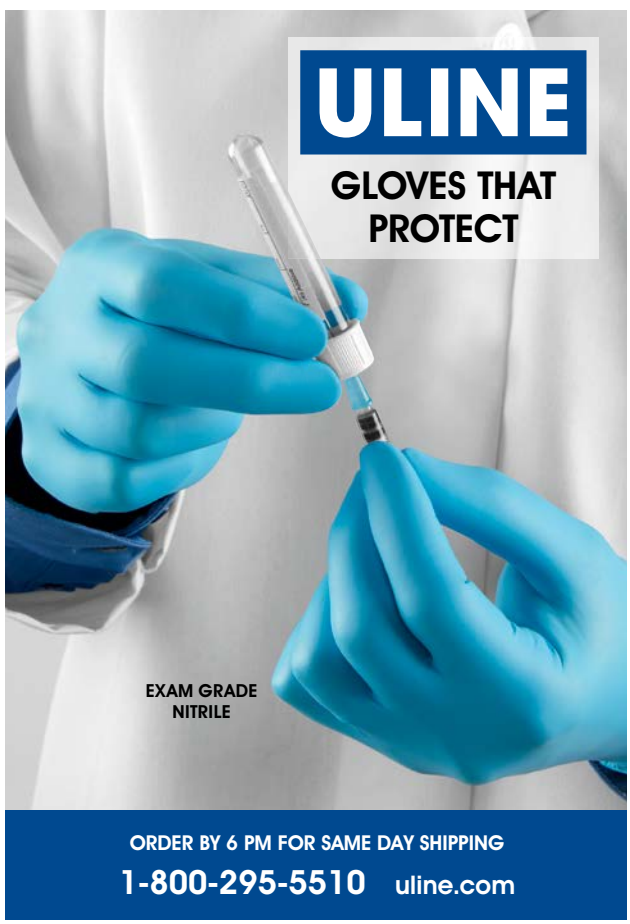
Two issues remain at stake amid the surgeon-supply chain relationship, according to Niven.

The first involves the connection of products to patient outcomes.

"Supply chain teams and clinicians should look to create a foundation of holistic and robust data on which to rely," she said. "While there is no substitute for the culture or staff needed to conduct value analysis, an all-in-one data, workflow and communications platform can aid in the evaluation of products and services and enable purchasing decisions that are both fiscally responsible and aligned with quality improvement."

The second focuses on labor.

"There is significant demand—and a shortage of talent—for healthcare supply chain professionals at all levels," Niven noted. "Changing skill requirements is one factor driving the labor shortage. We need to invest in education and training for the supply chain workforce of the future, including ensuring employees have advanced digital and analytical skills, which will remain critical competencies in supply chain roles. Additionally, a trusted workforce enhancement partner can help drive speed-to-value on the biggest-impact opportunities for a hospital supply chain team, support guidance on clinical integration and value analysis approaches, and help to lessen the burden on many stretched and already stressed teams."



Enabling clinical integration

Even now as the industry enters the "post-pandemic" era, Supply Chain must cultivate strategies and tactics to initiate, maintain and improve their relationship with orthopedic surgeons and the OR.

Ferch recommends "data-driven scoring" to create trust between the surgeons and supply chain for "their toolbox of orthopedic products to delight the customer." These include patient satisfaction scores (via the Hospital Consumer Assessment of Healthcare Providers and Systems or HCAHPS) and key performance indicators (KPIs).

Familiarity helps, too, according to Howard.

"The best strategy for Supply Chain to initiate is a meeting cadence (weekly, bi-weekly, or monthly) with orthopedic surgeons and OR staff," he advised. "With reimbursements tightening and pricing constraints being amplified, everyone must be on the same page. As suppliers continue to provide more value for contracting models built on provider commitment, surgeons and Supply Chain must stay aligned. Any deviation from this could erode savings that were previously negotiated."

Clinical-supply chain integration and value analysis have found renewed purpose in a post-pandemic world, Niven insists. "More organizations are turning to process improvement and lean strategies for ways to find savings, and simultaneously drive strong clinical outcomes," she observed.

Niven suggests that supply chain teams can initiate and/or strengthen relationships with orthopedic surgeons and the OR in at least six ways:

1. Regular touchpoints, ongoing communication and connection to the clinical care team and subject matter experts.
2. Establishing trust and adding value as it relates to product resiliency and sustainability – and supplier diversity.
3. Sharing information, data and guidance on upcoming disruptions and backorders, product alternatives, and management and mitigation strategies.
4. Helping to advance sustainable operations and environmentally preferred purchasing (EPP)—leveraging value analysis to identify suppliers and products designed to reduce environmental impact, pinpoint gaps and opportunities and benchmark against goals.
5. Driving equitable access to business opportunities that result in the inclusion, growth and increased spend with diverse, local and small business suppliers.
6. Collaboration with suppliers to incorporate total cost of ownership and outcomes, including elements such as reimbursements, patient experience, outcomes-driven data, safety and infrastructure to manage risk, patient outcomes, and disposable and capital equipment costs.

Smith recognizes and emphasizes the inherent value in Supply Chain and orthopedic surgeons working together.

"Building relationships through clear communication and expectations while following a consistent and simple process helps sustain the physician/supply chain partnership over time," she said. "Leveraging Supply Chain's expertise will take the burden off clinicians and engage them in the parts of the process where their experience, credentials and education are the true differentiating factor. Many organizations have shared an increase in engagement and improved relationships as a result of the pandemic." HPN

Visit https://hpnonline.com/53062786 for the sidebar, "3-D printing not yet a viable option for orthopedics."

Supply chain, surgeon alignment starts with conversations, value analysis

David Bulman

On the surface, professional relationships between surgeons – orthopedic or other specialties – and supply chain easily can be classified as antagonistically one-dimensional or even naively self-centered, but a sales executive at an orthopedic product manufacturer looks beyond the stereotypical nuances.

David Bulman, manager, National Accounts and Customer Service, Brasseler Surgical, recognizes that both the orthopedic surgeon and the supply chain leader work together for the patient from different directions.

"Orthopedic surgeons are experts at the repair of various fractures and defects that cause impairment and pain to everyday life in individuals throughout the world," Bulman said. "Their days are long, but they are problem solvers by nature and want those problems solved yesterday. To that end some will take matters into their own hands and proactively work to find vendors that can help solve these issues. At Brasseler Surgical, we help deliver value and quality by aligning with IDNs so that conversations about pricing, standardization and contract compliance are more intentional than transactional.

"Supply chain exists for the benefit of the organization," he continued. "This department is staffed by individuals who are aware of contracts across the orthopedic space and have developed a stable of suppliers that have been vetted to earn their way to the approved supplier list. In addition, the professionals in supply chain are aware of industry contacts that could be a time saver for the orthopedic surgeon so they don't have to search for a company that can fill their need."

Bulman believes orthopedic surgeons can and should collaborate and assures that plenty of successful examples exist that are rooted in value analysis.

"This has already been happening in the industry, and the solution is very simple," he said. "As most IDN's have some version of a value analysis committee (VAC), the orthopedic surgeons need to be represented in that arena. The cost of that seat at the table is to be proactive in meeting the organization's goals. These goals could include cost savings, standardization and ultimately, better patient outcomes. None of these initiatives will succeed without the surgeon's input and acceptance. These goals are more easily achieved when the surgeons, OR leadership and Supply Chain are aligned. The surgeons must be aware of all initiatives supply chain and be able to voice any concerns they may have around patient outcomes. Once aligned they will be a critical link in the chain for sustained success."

Attitudes and process challenges can cause alignment to bend and curve, which is an inherent component of the relationship, according to Bulman.

"I believe the biggest challenge is understanding what makes a product 'clinically acceptable' and consistency with that definition," he said. "As long as the orthopedic surgeons have a seat at the table in the VAC, they can serve the dual purpose of safeguarding patient outcomes and educating the other non-surgeon members of the VAC as to what would not be 'clinically acceptable.' That kind of cooperation will enhance driving and enforcing compliance from across the organization."

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VALUE. DELIVERED.

The Power of Positive Deviance

by Karen Conway, Vice President, Healthcare Value, GHX

In this column, I often focus on the value of standardization in healthcare and the supply chain. So why would I be writing about deviance, even if positive? I first discovered the concept of positive deviance while doing research for the U.S. FDA, as to why some medical device manufacturers went beyond what was required by the agency's unique device identification rule in order to help their customers effectively use the standard identifiers. More recently, I have witnessed positive deviance in action while exploring the extraordinary results achieved by midsize distributor Concordance. After hearing about how the company supports health equity, inclusive hiring, and system-level supply chain visibility, I asked CEO Lisa Hohman why the firm chooses to take on these larger challenges. Her answer (described at the end of the column) is relatively simple and universal.

Let's start with the definition of positive deviance. I am particularly drawn to those that speak to *intentional behaviors*[1] and the solutions coming from within a community,[2] vs. being mandated as so often happens in healthcare.

Health equity

Concordance first piqued my interest after I heard how the company responded to a question in an RFP from Rush University Medical Center about supporting economic development in a disadvantaged Chicago suburb; Concordance won the contract, and has since built a 175,000-square-foot distribution center on the west side of Chicago and hired and trained local residents to work there. Concordance is now working with local authorities, community organizations, and non-profits on ways to provide reliable and affordable daycare for its employees and west side residents. Read more about how Concordance is supporting other west side initiatives—from job shadowing and training certifications to lowering supply chain greenhouse gas emissions—in the December 2022 (hpnonline.com/21286969) and May 2023 (hpnonline.com/53056200) issues of Value.Delivered.

Food insecurity

Going above and beyond is not new to Concordance. Years ago, the company began helping a health system address food insecurity among patients living in food deserts (where there is an overabundance of fast food and convenience stores but limited access to nutritious food). Concordance helped the health system package boxes of healthy food to distribute to patients upon discharge.

Human trafficking

In 2012, Concordance learned about the human trafficking of young women from the work of Theresa Flores, author of *A Girl Next Door*. Collaborating with local leaders, Concordance (then Seneca Medical) helped establish a not-for-profit organization, Sisters In Shelter, which provides education, support, housing, and counseling for those negatively affected. Today, Concordance remains the largest single contributor to the organization.

Inclusive hiring

Concordance's inclusive hiring program has delivered benefits for both those hired and the company. With proactive intent, Concordance reaches out to community organizations that serve differently abled persons and, with the help of work coaches, develops jobs customized to their capabilities. Company employees say the positive attitude of the workers is contagious, boosting both morale and productivity.

Supply chain resiliency and visibility

When the pandemic hit, Concordance was one of six distributors working with federal agencies, including the Strategic National Stockpile (SNS), to help supply personal protective equipment and other products where they were needed most. Recognizing that the private healthcare sector had limited knowledge as to how the SNS operates, Hohman spearheaded a partnership with the trade association SMI to educate and engage members around emergency preparedness.

Concordance participated in an SMI-sponsored research effort with providers, suppliers, the SNS, and the state of North Carolina to create lessons from how they individually and collectively responded to supply shortages during the pandemic. Concordance was also among the first to call for public-private initiatives to rotate stockpiled products into use to avoid them expiring or becoming unusable while sitting on the shelf.

More recently, Concordance was the driving force behind a new industry platform to support supply continuity. Concordance has signed a 10-year contract with data analytics company Palantir to create a healthcare supply chain platform that provides visibility at the system level. The platform, known as Surgence, is open to all providers, distributors, and manufacturers, enabling trading partners to share actionable information with authorized users on inventory and consumption levels, and help ensure products are where they are needed most. Surgence also supports temporary shifts to clinically equivalent products as needed during shortages.

Finally, I promised I would share what Lisa believes to be the secret behind her company's positively deviant behavior and results. She admits being a privately held company supports flexibility and an entrepreneurial spirit, but she gives the biggest kudos to her team, which she says is constantly looking for ways to support the communities they serve.

On a personal note, Lisa credits her mother for her own positivity: "Even on the worst of days, my mother could find some good in everything." She describes losing her brother when he was just 20 years old in a car accident. "On the day he passed, my mother had the fortitude to recognize that at least no one else was injured. Her ability to always find something to be thankful for shaped my view of the world. Live every moment; always find the good in the world; and when there is a need, figure out how to positively impact lives."

As scholars continue to search for the root causes of positive deviance, we may need to look no farther than our own world view. Maybe it is just believing in one another and encouraging work for the collective good. And this, I believe, is something we can all do. As Lisa says, "It costs nothing, but the rewards are tremendous." HPN

References

1. Spreitzer G, Sonenshein S. Toward the construct definition of positive deviance. *The American Behavioral Scientist*. 2004;47(6):828-847.

2. Sternin, J., & Choo, R. (2000). *The power of positive deviancy. Harvard Business Review*

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