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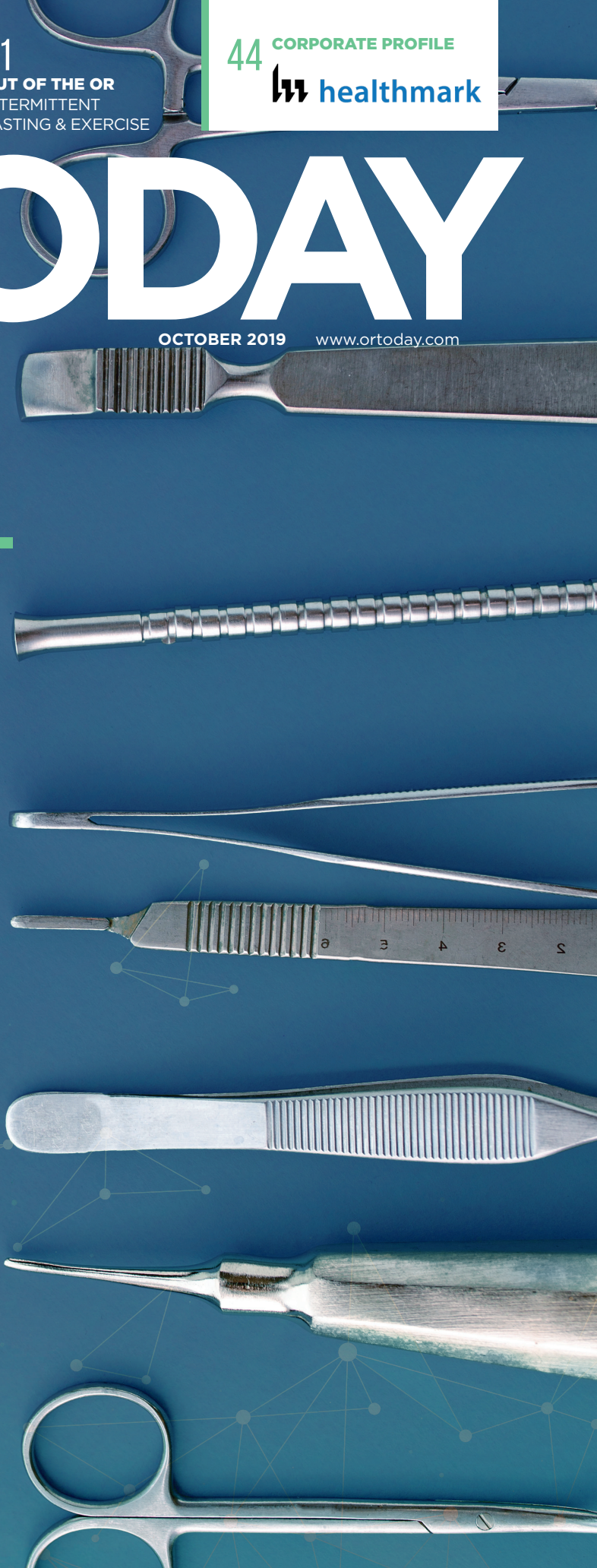
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STERILE ENVIRONMENT BEST PRACTICES

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STERILE ENVIRONMENT BEST PRACTICES

BY DON SADLER

STERILIZATION IS ONE OF THE MOST CRITICALLY IMPORTANT ASPECTS OF PATIENT SAFETY TODAY. THIS UNDERLINES THE VITAL ROLE PLAYED BY STERILE PROCESSING IN TODAY'S HEALTH CARE ENVIRONMENT.

Kimberly Smith, MS, RN, CNOR, CRCST, the owner of KAS Sterilization Solutions, says that sterile processing department (SPD) personnel are "full partners in a facility's infection control plan to ensure that patients are not exposed to potentially infective conditions."



“WE ARE WEAPONS OF MASS MICROBIAL DESTRUCTION. OUR MISSION IS TO PROVIDE FUNCTIONAL SURGICAL TOOLS ON TIME AND STERILE FOR EVERY PROCEDURE IN WHICH THEY ARE REQUIRED.”

— HANK BALCH

These personnel are responsible for providing “clean, functioning and sterilized disinfected instruments for patients undergoing invasive procedures or surgery,” Smith adds. “In addition, they are responsible for performing quality control monitoring of the equipment and processes involved in reprocessing instrumentation.”

WEAPONS OF MASS MICROBIAL DESTRUCTION

Hank Balch, the founder and president of Beyond Clean, is a little more colorful in his description of SPD.

“We are weapons of mass microbial destruction,” says Balch. “Our mission

is to provide functional surgical tools on time and sterile for every procedure in which they are required.”

“Although sterile processing is often misunderstood, it plays a critical role in today’s health care environment,” adds David Taylor, MSN, RN, CNOR, president of Resolute Advisory Group LLC. “Sterilization and sanitation are of utmost importance as it relates to patient safety.”

Smith believes that the body of knowledge and research related to sterile processing is currently offsetting past decades of inattention. “However, sterile processing is still at the mercy

of vague manufacturer instructions for use (IFUs), instruments that can’t be disassembled for cleaning, and a lack of clear productivity benchmarks that are understandable and universally accepted.”

There is a wide range of potential negative consequences that can arise from poor sterile processing practices. According to Smith, these include:

- Increased potential for surgical site infections (SSIs);
- Increased surgery times and time under anesthesia;
- Decreased surgical caseload and revenue if cancellations are related



“THE KEY TO A SUCCESSFUL QUALITY ASSURANCE AND STERILIZATION MONITORING PROGRAM BEGINS WITH LEADERSHIP.”

— DAVID TAYLOR

to compromised or unavailable instruments; and

- Increased instrument maintenance and replacement costs.

Taylor says hardly a month goes by without a news item about problems due to a health care facility failing to meet sterilization standards. A few of these high-profile stories include:

- A North Carolina hospital that washed instruments in hydraulic fluid.
- A New Hampshire hospital where patients were told that non-sterile surgical equipment may have exposed them to brain disease.
- A superbug found at a suburban Chicago hospital where health officials are taking steps to prevent the spread of CRE.
- A hospital in Milwaukee where contaminated instruments are the suspected culprits in staph infections contracted by five women during their surgeries.

In addition, as many as 12,000 young adults and children treated at a Seattle clinic and surgery center since 2010 could be at risk of infection from surgical instruments that may not have been properly sterilized. And, 293 patients at a hospital in Massachusetts have possibly been exposed to hepatitis since 2016.

Taylor believes that current practices, a lack of education and training, and engineering factors keep sterile processing from being a high-reliability department. “Medical errors are the third-leading cause of death in the U.S. and proper sterilization plays a huge role in reducing errors and thus improving patient safety,” he says.

BEST PRACTICES IN STERILIZATION

Given the many potential problems associated with poor sterilization, it’s critical that health care organizations take a fresh look at this area and adopt best practices that have been proven to improve sterilization.

As with many things associated with improving health care and patient safety, improving sterilization practices starts at the top of the organization, says Taylor.

“The key to a successful quality assurance and sterilization monitoring program begins with leadership,” he says. “Number one, do leaders have the knowledge and understanding of the various sterilization quality assurance guidelines? And number two, is that knowledge transferred to the staff?”

The primary sources to provide a foundation of sterilization knowledge are ANSI/AAMI ST79 and AORN’s Recommended Practices for Sterilization, Taylor adds.

“The real need in our industry has been and remains continuing education,” says Balch. “This is by far the most important and transformative action that SPD and OR teams can take to improve their current state of reprocessing.”

However, this is one of the most difficult and time-consuming actions, which is why it’s so often left undone, Balch adds.

“It’s easy to talk about better communication and increased collaboration,” Balch says. “But, if these things are not undergirded by actual knowledge, then we are only communicating and collaborating about



DAVID TAYLOR, MSN, RN, CNOR
PRESIDENT OF RESOLUTE ADVISORY GROUP LLC

myths, misconceptions and personal preferences.”

Smith has her own list of sterilization best practices that starts with improving point-of-use cleaning practices. “All users of instrumentation share in the responsibility for cleaning and maintaining instruments,” she says.

Smith also recommends removing excess and unnecessary instrumentation from sets because these create wasted work. “And be sure to purchase an appropriate number of instruments to eliminate supposed ‘rapid turnover’ sets and items,” she says. “No part of the processing continuum can be minimized or circumvented.”

Most importantly, Smith stresses the importance of treating instrument sets like any other asset required for surgery. This includes the surgeon, anesthesia provider, circulating nurse or scrub tech, and the operating room itself.

“If you only have four ACL sets, don’t schedule five ACL surgeries,”

says Smith. "Every moment spent reprocessing 'rapid turnover' items for today is less time spent on preparing instruments, case carts and supplies for tomorrow's schedule."

UNIQUE STERILIZATION CHALLENGES

According to Taylor, the most difficult instruments to reprocess are those that have complex designs and various validated IFUs. "For the most part, most SPDs have standardized cleaning procedures," he says.

"However, instrument complexity or the size of instrument sets – such as orthopedic, spine and delicate instruments like ophthalmic sets – require specific detailed cleaning and reprocessing instructions that are not consistent from one manufacturer to another," Taylor adds. "This further complicates the process."

Central to any sterile processing quality management program is the need to document every aspect of the workflow, says Balch.

"I'm talking about from point of use through decontamination and on through the process," he says. "Unfortunately, there are currently very few aspects of the instrument workflow that are consistently documented in most SPDs."

Balch believes there are opportunities for SPDs to increase their documentation capabilities through digital tracking software that's currently on the market. "While these programs are often called 'instrument tracking systems,' I think a better term for them would be 'surgical asset management platforms,' " he says.



KIMBERLY SMITH, MS, RN, CNOR, CRCST
OWNER OF KAS STERILIZATION SOLUTIONS

OR AND SPD COOPERATION IS CRITICAL

Finally, the importance of cooperation between OR and SPD personnel cannot be overstated. "One of the problems is that neither department truly understands or appreciates the work required of the other," says Smith.

"I've had some success in exposing SPD personnel to surgical procedures by having them actually watch a surgery or having a surgeon present an in-service to SPD using instruments utilized for a specific procedure," Smith adds. "This provides direct knowledge to the SPD tech of how and why a specific instrument is utilized."

Smith has also had OR techs and nurses spend a full day in SPD so they can witness all of the activities required to inspect and functionally test each instrument. "The leaders of each department need to respect the duties and responsibilities of the other and set this kind of tone for the staff each and every day," says Smith.

Taylor concurs: "I call it 'walk a mile in my shoes,' " he says. "If we don't understand the other person's perspective, how can we deliver quality health care?" ■