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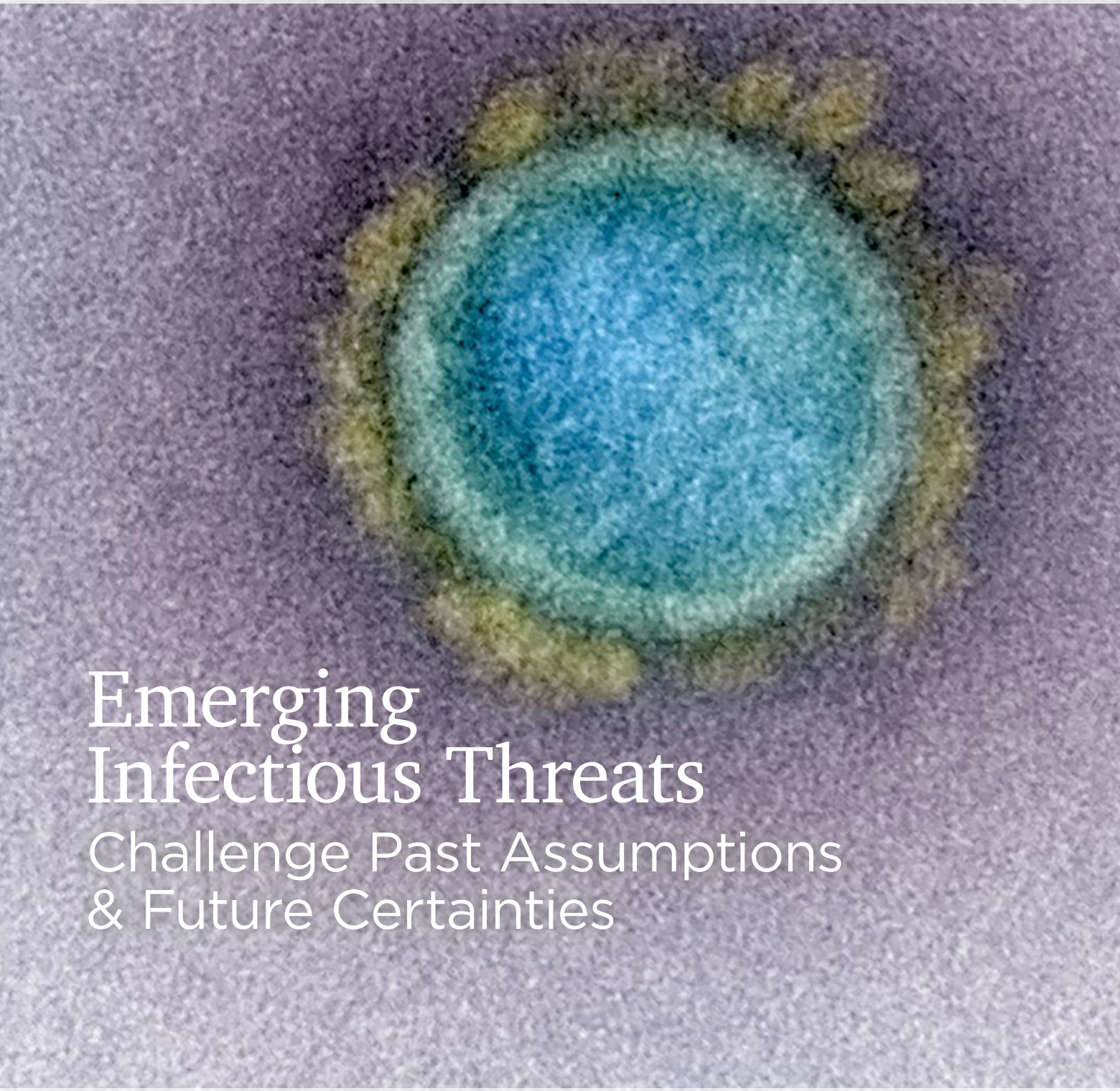

Emerging Infectious Threats

Challenge Past Assumptions & Future Certainties

+ The Other Pandemic: The Fight Against Antimicrobial Resistance

+ A Patient's Perspective of Healthcare-Associated Infections

sterile processing

By David L. Taylor III, MSN, RN, CNOR

Common SPD and OR Missteps Place Patients at High Risk

Items should be stored flat, not upright.

Surgical instruments, endoscopes and durable medical equipment that are of subpar quality place patients at risk every day. As a consultant, I have the good fortune of working with health systems across the country and I see a lot of good things and not-so-good things in this role. This article will share some of my experiences when consulting with numerous facilities, and will, hopefully, lead readers to examine their own practices and make necessary changes to improve quality and keep patient safety the top priority.

For decades, thousands of patients have been negatively impacted by healthcare systems that neglected to properly support and manage the sterile processing department (SPD).

Today, hospitals are larger and more complex, with many moving parts. Everything works in tandem, until corners are cut (e.g., staffing, training, education) and those shortcomings lead to negative outcomes. For decades, thousands of patients have been negatively impacted by healthcare systems that neglected to properly support and manage the sterile processing department (SPD). Many healthcare systems don't believe it will ever happen to them, but they are mistaken. We continue to see too many infections, retained foreign objects, life threatening injuries, and even death – all the result of actions that could have been avoided.

Healthcare leaders and their staff members who perceive their departments are running well are often surprised when a consultant comes in with a fresh set of eyes and tells them differently. It is not uncommon for organizations to be unaware of their problems because the jobs they perform are difficult, even under the best of circumstances. What follows are some of the most valuable lessons I routinely share in my consultant role:

Cleaning should begin at point of use. Bioburden such as blood and tissue, as well as medication and saline, are the primary causes of pitting, staining and discoloration of instruments. Instrument cleaning should begin during the surgical procedure to prevent blood, soil and debris from drying on the surface and within lumens. Point-of-use care means where the instruments are used. Operating rooms (OR) have many time pressures and it is very easy to neglect cleaning and proper care of instrumentation used during a procedure. Blood and tissue that are allowed to sit and dry on an instrument make that device more difficult to process. Its presence can also cause pitting and other problems, reducing the instrument's life expectancy and usefulness and costing hospitals thousands of dollars every year in expensive repairs and premature replacement. If bioburden isn't properly removed prior to sterilization and that instrument is subsequently used on a patient, life-threatening infections can result. Remember, an instrument cannot be effectively sterilized if it hasn't first been thoroughly and properly cleaned.

View more examples of OR/SPD missteps

Tape is often misused. Healthcare workers do love their tape. Whether that tape is scotch, masking or medical varieties, it seems it is often used on everything except for which it was intended. Autoclave tape is used to secure packaging materials (e.g., wrapped, container or pouch systems), allow penetration of the sterilizing agent and maintain sterility of the processed item after sterilization. Autoclave tape consists of colored Kraft paper with a rubber resin adhesive that resists moisture and most solvents. The tape can withstand broad temperature and environmental extremes (including steam sterilization) and is not intended for internal use (it's not validated for such use). The importance of this cannot be overemphasized because tape can block the disinfectant or sterilizing agent from making complete contact with the surface of instruments. Still, it is often being used to secure integrators and pouches on instrument baskets and trays. Load stickers and office-based label makers used to identify instrument sets are also being used inappropriately – and these practices are unacceptable. If tape is found on the inside of wrapped, container or pouch systems, it should be considered contaminated.

Rigid containers, blue wrapper and peel packs are often mishandled. Wrappers, containers and pouch systems have been used in our industry for decades. Unfortunately, many leaders and staff members do not understand the importance of their proper handling and care. They fail to recognize that containers, wrap and peel packs require as much care and attention as the instruments themselves.

A CUT ABOVE

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> *It's time for facilities to elevate the standard of care being practiced in their SPDs and commit to making their facility the best choice in healthcare.*

In my consulting, I often find poorly maintained rigid containers in daily use that are dented and misshapen, with rubber seals either dry rotted or missing. Some containers I've found were in such bad shape, a sheet of paper could easily be passed between the container and the lid once it was "secured." I have even found insects that made their way into rigid containers, along with dust and lint the color of the organizations' scrubs. There was no telling how long these instrument containers had been compromised or how many patients might have been impacted.

Blue wrapper and peel packs are commonly used (and misused) as well. The presence of holes in these items is not uncommon and it compromises the integrity of what the products were intended to protect. Instrument sets, basins and other items packaged with blue wrapper and peel packs are often stored inappropriately, in high traffic areas, and often next to water sources or on shelves where employees rub against them as they pass by. I have even seen employees use the same shelves where instruments are being stored on as step stools to reach items located on higher shelves. The integrity of peel packs can be compromised when stuffed beyond capacity into drawers or bins. Peel packs can be packaged either with a single or double pouch; however, inner pouches must remain flat to ensure steam penetration is not compromised as a result of air pockets. This standard is more than a decade old, but I find peel packs all over the country that have inner pouches folded over, often not only once but several times. When package integrity is compromised, it is often blamed on the SPD. In reality, it is the responsibility of both the OR and SP professionals to properly handle and store these items.

SPD equipment and chemicals are often overlooked. Equipment used in the SPD must be inspected, monitored, tested and cleaned regularly. Chemicals used in the cleaning and disinfection process must be monitored as well. Unfortunately, this isn't always happening. On a recent visit to an organization that was having issues with high surgical site infection rates, it was discovered they were not maintaining their equipment or using chemicals properly. Autoclaves were filthy, with years of dust built up behind the doors of the units and on the controls. Drain screens were also caked with hard water deposits, preventing the evacuation of air from the autoclave chambers. Efficacy testing (e.g., dart tests, biologicals, etc.) were not performed routinely or being documented. Chemicals (e.g., enzymatic and detergents products) were not routinely inspected. In some cases, containers were found empty and had been for weeks, which prevented proper decontamination to remove soil and organic matter – ultimately, placing both SPD staff and patients at risk.

Manufacturing of "homemade" medical supplies is occurring. During a consultation with one healthcare organization, I was horrified to discover "endoscopic cholecystectomy pouches" being dangerously made from Walmart sandwich bags (employees were placing them in peel pouches and sterilizing them to save money). This is wrong on so many levels. Did they not know they are required to attain 510(k) clearance from the US Food and Drug Administration (FDA) in order to manufacture medical supplies? Did they not realize there was no way to properly sterilize these sandwich bags because they were not designed for such a purpose (least of all, for use in patient care)? What made this worse was the decision to make these pouches from sandwich bags was initiated by the surgeon and sanctioned by the OR director who purchased the sandwich bags and instructed the registered nurses to create them (and all of this was done with approval from the chief medical officer and hospital president).

SPD staffing is often lacking. If hospitals advertised they have been understaffing and underfunding their SPDs for years and, as a result, were putting patients at risk for a life-threatening illness, they would not be in business very long. Still, many healthcare facilities are doing just that, and they're jeopardizing the safety of their patients and employees and putting the organization's reputation on the line in the process. Increasingly, headlines are being made when SPDs are neglected; budgets fail to allow for adequate equipment, training, staffing and other crucial resources; and mistakes and shortcuts happen as a result. When device contamination leads to patient injury, that's considered a "never event," meaning it should not have occurred. These events have been reported on The TODAY Show and across all major television networks, as well as in some of the nation's most prominent newspapers, and those preventable incidents are costing hospitals millions of dollars. Healthcare leaders must proactively manage the day-to-day operations of the SPD if they wish not to become fodder for the next news story.

What is accepted is what is taught (good or bad). Standards of care and accountability matter. What employees see every day becomes the standard, so if what they see is wrong and their leaders do not correct that perception, those incorrect processes will surely continue. I've seen employees doing the wrong things simply because that was the way they were taught or "the way things have always been done." When educating, it's vital to train and validate employees' competencies and to give them the tools to challenge the status quo. Industry standards, guidelines, IFU and policies and procedures must be followed diligently and consistently. Right from wrong must never be left to interpretation.

Patients are counting on everyone involved in their care, including those in the SPD, to do the very best job possible. It's time for facilities to elevate the standard of care being practiced in their SPDs and commit to making their facility the best choice in healthcare. For those who are unsure where to begin, consultants can help guide the process by using their breadth of knowledge and expertise to shed light on shortcomings and truly serve as a partner in quality. Unfortunately, many healthcare organizations only seek help when they are in trouble and by that time, it's often too late for patients.

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Reference:

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