Best Practices in Sterile Processing
*Training, testing and proper PPE use are essential*  BY ERICA SMITH

The sterile processing department (SPD) plays a crucial role in maintaining a clean and sanitary environment within a surgery center. Decontamination, cleaning, washing, inspecting, sterilizing and testing are just some of the tasks staff perform there. In my opinion, this is one of the most exciting parts of a facility.

Throughout my time working with surgery centers across the country, I have been fortunate to see many SPDs. Based on these experiences, I have gathered several key takeaways every ASC should be aware of.

**The Importance of Establishing an Efficient SPD**

SPDs vary in size and range from single-room to three-room designs. Regardless of the size, it is essential for surgery centers to create an appropriate setup that will help ensure sterility for the instruments and devices being processed.

The decontamination and cleaning area must be distinctly separated from the sterilization area. If a facility has only one room, a four-foot partition between the two areas is required. Moreover, a minimum distance of four feet from the washing sink to the prep and pack area for instruments is necessary, according to the Association of periOperative Registered Nurses’ (AORN) Guidelines for Perioperative Practice. If a facility has multiple rooms, a door or pass-through opening can create this separation.

SPDs also must establish a defined traffic pattern. This pattern helps prevent cross contamination of reprocessed instruments, according to AORN guidelines. The flow should move from cleaning and decontamination to prep and packaging, sterilization, sterile storage and, finally, the point of use.

When these protocols are in place, the occurrence of cross contamination should be rare. Many surgery centers effectively run multiple SPDs with proper protocols. One particularly notable case in my experience was a surgery center with two rooms and a separate sterile storage area. This facility had designated spaces for personal protective equipment (PPE), chemicals and other storage needs. The surgery center’s setup included a three-tub processing sink, an ultrasonic washer, three pass-through washers and a pass-through window. The cleanliness of the room was extremely impressive, and the traffic flow was consistent for all staff members in the SPD.

In their sterilization room, the same level of cleanliness and order was evident. The room contained ample space for prep and packaging, three autoclaves and an extensive testing area with records and logs of daily testing. When I asked the staff if they would make any changes, they responded, “No, we have designed our SPD so...

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effectively that other hospitals have toured our facility to replicate our structure.”

I have encountered various SPD setups within surgery centers, some immaculate and others that could benefit from improvements. For instance, one facility had a two-room SPD with a separate storage area. Its main challenges were traffic flow and its process for instrument reprocessing. Different staff members had distinct reprocessing methods. The reasons for this were that not all staff members received the same training and staffing issues limited the amount of time available for additional training. These are two issues that can be addressed. Consistent training to ensure uniformity in procedures can make a big difference and is worth the time.

Remember Proper PPE Usage
While handling contaminated instruments, specific PPE is crucial throughout the cleaning and decontamination process. According to AORN guidelines, required PPE items include a fluid-resistant gown with sleeves, utility gloves with the cuff extending past the gown cuff, a fluid-barrier mask, eye protection or a face shield, and shoe covers. The PPE safeguards staff from pathogens on instruments. The gown, mask and eye protection can help protect staff from splashes or splatters, while utility gloves help prevent percutaneous injuries when handling contaminated instruments. Shoe covers protect against infectious material on the floor.

In addition to wearing appropriate PPE, an adequate supply of PPE should be available to staff and visitors at all times, according to AORN guidelines. To prevent contamination, staff also need to follow correct donning and doffing procedures.

Failure to use PPE properly can put patients and staff at risk of infection. Regular training and compliance accountability is critical.

Testing Is Essential in SPD
When sterilizing instruments, several indicators inform facility staff whether autoclaves are working effectively. Chemical and biological indicators can assess different parameters to ensure autoclave functionality. Chemical indicators range from type 1 to 6. According to AORN guidelines, type 1 indicator strips should encircle each package to measure autoclave temperature. There should also be a chemical 5 or 6 inside each package to help measure multiple parameters and ensure the autoclave is working properly.

After the autoclave sterilizes the instruments, staff must check if the exterior chemical indicator changes colors. Upon opening, the interior integrator strip also should change colors. If the strips do not change colors, that must be recorded and tests must be run to check the autoclave. Staff should run chemical Bowie Dick and biological tests daily to prevent these issues.

For steam autoclaves, daily Bowie Dick testing is mandatory to verify proper functioning. Testing should occur in an empty chamber before loading instruments. Both chemical and biological testing must be performed. AORN recommends daily biological testing.

Both of the surgery centers mentioned earlier consistently followed testing protocols and recorded results. While both adhered to guidelines, one surgery center’s detailed documentation stood out. Comprehensive record-keeping ensures information is readily available for any queries.

Continual Assessment and Training
One trend is clear: continuous assessments and staff training lead to exceptional SPD procedures. While there might not be a set number of required assessments, the correlation between assessment frequency and SPD preparedness is evident.

Assessments identify areas for improvement in traffic flow, operating procedures and PPE use. Robust training further enhances staff accountability and infection prevention knowledge. Regular training provides crucial information, establishes unidirectional traffic flow and prepares staff to respond effectively to incidents.

Final Thoughts
Regardless of challenges like staff shortages, every ASC has the ability to run a strong SPD effectively and seamlessly. Through training, comprehensive assessments and a profound understanding of infection prevention, an exceptional SPD can be cultivated. Safeguarding the health and well-being of patients, staff and the community stands as an absolute priority, and by placing emphasis on infection prevention at all times, every individual within an ASC will reap the rewards. 

Erica Smith is the surgical solutions manager at Henry Schein in Melville, New York. Write her at erica.smith@henryschein.com.