





Role of Hygiene, Attire and Work-Area Maintenance in Safety and Infection Prevention

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LEARNING OBJECTIVES

1. Discuss the importance of maintaining the integrity of the instrument work area
2. Explain the purpose and importance of hygiene and attire requirements in Sterile Processing
3. Identify strategies to maintain the integrity of the instrument and clean assembly areas

Operating a vehicle is such a common activity that we often forget how serious a mistake can be. A single distraction, misjudging road conditions or failure to follow safety rules can have devastating consequences, including injury or death. The same applies to working in Sterile Processing (SP). Safe, effective work in SP areas requires proper training, attention to detail and a commitment to doing the right thing, always.

In the Sterile Processing department (SPD), very little is done without a specific reason. Every action or step helps ensure the success of processes and the safety of patients and employees. When the topic of work-area maintenance is discussed, it often focuses on overall traffic control and environmental cleaning across the entire department. It may also address airflow, temperatures and humidity. While those aspects are essential, what is often overlooked is the importance of every

technician's actions in the area. One must always remember that a moment of distraction or an incorrect or careless decision by an SP technician can cause harm.

Each person entering the work area must know how to maintain it to foster safety and reduce contamination risks.

Objective 1: Discuss the importance of maintaining the integrity of the instrument work areas

The instrument work area is the last stop before instruments are packaged and sterilized. The next time they are handled will be for a procedure. For that reason, it is vital to take every possible measure to prevent contamination. That goal is attainable only if everyone in the work area takes responsibility for their actions and for the cleanliness of the area.

Failure to follow established requirements can jeopardize patient and employee safety. For example, if



inspection fails to identify soil remaining on an instrument, the sterilization process will be compromised. Sterilizers are designed to sterilize, not clean. If an item is placed into a sterilizer with soil on it, that instrument will remain contaminated. There are several dangers with that scenario. The soiled instrument may be missed again and used on a patient; it may be placed with sterile instruments and cause contamination; or it may not function properly, increasing the risk of infection, injury or procedure delay.

If an instrument is contaminated during inspection and assembly, it increases the risk of a contaminated instrument being introduced into the sterile field and the patient. To reduce the risk of that type of contamination, specific rules are established for the inspection/assembly area. For example, clean hands are a must, but just washing them alone does not eliminate the risk. Hands may become contaminated by oil-based hand lotions or oils from food kept in the assembly area (standards state that food and beverages must not be consumed or stored in work areas, and technicians and leaders must ensure compliance). During sterilization, oils may impede contact between the instrument and the sterilant.

The goal is to keep instruments as clean as possible between the end of the wash cycle and sterilization. Containing the work area and ensuring that instruments are not exposed to contaminants must always be top priorities.

Objective 2: Explain the importance of hygiene and attire requirements in Sterile Processing

Dress code compliance is critical for maintaining the integrity of the clean

assembly area and keeping technicians safe. For all employees, compliance begins at home. SP technicians should always maintain a high level of personal hygiene, including clean hair, body and fingernails (long nails, nail polish or artificial nails are not recommended in industry standards and should be reflected in facility/departmental policy). Nail polish and artificial nails can chip or flake, potentially falling onto instruments and components or inside sets or trays; long nails can harbor bacteria and debris that can be difficult to remove, even with handwashing; therefore, standards such as ANSI/AAMI ST79, *Comprehensive guide to steam sterilization and sterility assurance in healthcare facilities*, state that nails should be no longer than ¼ inch past the fingertips.

Good hygiene practices are necessary to help ensure that the body is clean before changing into scrub attire. Once at the healthcare facility, several requirements must be met before entering the work area.

Scrub attire – Scrub attire is required in all semi-restricted areas. It should be issued, laundered and maintained by the facility and changed every shift or more often if it becomes wet or soiled. In some cases, technicians may opt to wear a shirt under the scrub attire for added comfort. The scrubs must completely cover shirts worn under them; they should not be visible above the scrub shirt neck or below the sleeves to help prevent contaminants on the shirt from contacting the scrubs. *Note: Some facilities do not allow personal shirts to be worn under scrubs. In all cases, employees must follow the requirements established by their facility. It is also important to recognize that while a facility will develop requirements that meet*

regulations, standards and guidelines, it may also exceed them if it determines that a more stringent practice is appropriate.

Scrub attire applies to others (non-SP personnel) entering the department; therefore, instrument technicians should keep watch for people from outside the department who enter without proper attire. An important role of SP technicians is to safeguard the area against contaminants, including those that could be carried in on street clothes. To prevent future policy breaches, technicians should use each incident as an opportunity to demonstrate which attire is required and how it should be worn. The first step in behavior modification is education and modeling appropriate practices.

Shoes – Shoes with rubber soles and closed heels and toes should be worn at all times in the department to protect feet from injury and prevent slips and falls; sandals should never be worn. Shoes, especially the soles, carry significant amounts of dirt, bacteria and other potential contaminants. Shoes should also be dedicated to work at the healthcare facility; this means those worn from home should be replaced with those worn only in the facility, and the work shoes should be removed before leaving the facility at the end of the shift.

Hair covering – Hair should be covered while working in SP areas. Disposable head covers are available, and some facilities allow reusable head covers if they meet facility requirements for coverage, laundering and other criteria. Skull-type caps are not recommended for use because they fail to adequately cover hair on the head. All hair should be covered except eyebrows and eyelashes. Beards and mustaches should be covered with a dedicated beard cover or hood.



Jewelry and lanyards – Jewelry of any kind, including rings, wristwatches, necklaces, bracelets and earrings or other body piercings, should not be worn in any SP areas. Not only does it harbor microorganisms, but some jewelry can also come loose and fall unnoticed into instrument sets, posing a patient safety risk. If badge lanyards are worn, they should be contained in some manner to avoid having them contaminate work areas. Lanyards should also be cleaned and disinfected routinely (be sure to check and comply with facility policy).

Other requirements — Hand hygiene should be performed frequently, either by handwashing with soap and water or by using waterless hand sanitizers, in accordance with facility policy.

Objective 3: Identify additional strategies to maintain the integrity of the instrument and clean assembly areas

Beyond personal hygiene, SP technicians can maintain the integrity of the instrument area by keeping doors closed when not in use and following other requirements designed to preserve it. Propping open doors, for example, increases the risk of contaminants entering the work areas.

Technicians are responsible for keeping their workstations clean and organized every shift, as stated in ST79. Cleaning is not just the responsibility of Environmental Services (EVS) personnel. Work surfaces, tables, countertops and sinks should be damp-dusted daily and disinfected with an appropriate hospital-grade wipe or spray at the end of each shift and whenever visibly soiled. Supplies should be well organized and not stored in external shipping cartons or boxes.

Additionally, SP professionals should avoid bringing any personal items, such as purses, backpacks and personal mobile devices, into work areas. Studies have shown that these items can introduce contaminants into the work area and contaminate employees' hands and other surfaces with which they come in contact. If personal mobile phones are allowed in certain areas of the department, they must be approved by facility and department policies and decontaminated using the same process as facility-owned mobile phones.

Again, technicians should always monitor the work areas to help ensure all attire and traffic requirements are met and that workstations remain clean and disinfected.

Conclusion

The best equipment and system alone cannot protect work areas and items within them from contamination. Doing so requires strict compliance with standards and facility and departmental policies and procedures, and the watchful eye of all technicians in the work area. It has been said that unless an instrument is grossly soiled or visibly damaged, even the best surgical team cannot identify contamination or malfunction by looking at the device. That responsibility rests with instrument technicians and begins even before they enter the SPD. **P**



CIS Self-Study Lesson Plan Quiz:

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Lesson No. CIS 317 (Instrument Continuing Education – ICE) • Lesson expires August 2029

1. Maintaining good personal hygiene:
 - a. Is not pertinent because technicians wear scrub attire
 - b. Is the first step in preparing for the technician's shift
 - c. Is required by federal law
 - d. Can replace the need to wear certain scrub attire
2. Personal mobile phones should not be permitted in assembly area unless:
 - a. Their frequency is approved by the Communications department
 - b. Departmental policy allows, and they are decontaminated like facility mobile phones
 - c. They are silenced and carried in a protective case
 - d. They have a microbial-resistant surface
3. Standards and guidelines:
 - a. Must be followed exactly as written
 - b. Mirror federal regulations
 - c. May be less stringent than a facility's own policies
 - d. Are requirements, not recommendations
4. Positive airflow:
 - a. Helps maintain a more comfortable temperature
 - b. Can prevent equipment from overheating and malfunctioning
 - c. Prevents external air from decontamination and adjacent areas from entering clean areas
 - d. Is not recommended for SP areas
5. If soil remains on an instrument when it is placed in a sterilizer:
 - a. The sterilization process will loosen and remove the soil effectively
 - b. The technician responsible should be immediately reported to Risk Management
 - c. The device will be rendered safe
 - d. The instrument will not be rendered sterile
6. Which items have been shown to introduce contaminants into work areas?
 - a. Purses and backpacks
 - b. Mobile phones
 - c. Jewelry
 - d. All the above
7. Propping doors open:
 - a. Is useful for regulating the temperature between work areas
 - b. Increases the risk of contaminants entering work areas
 - c. Is only acceptable in clean work areas, not in decontamination
 - d. Should only be done at the manager's discretion
8. Technicians should not be responsible for monitoring work areas to ensure attire and traffic requirements are met.
 - a. True
 - b. False
9. Nail length for SP technicians:
 - a. Should not exceed ½ inch past the tip of the finger
 - b. Should not exceed ¼ inch past the tip of the finger
 - c. Does not matter if nails are cleaned properly
 - d. None of the above
10. If inspection fails to identify soil remaining on an instrument:
 - a. The procedure may be delayed
 - b. The patient may become infected
 - c. The instrument(s) may not function as designed
 - d. All the above
11. Why should oil-based lotions and food not be allowed in SP areas?
 - a. Oils can be transferred to instruments, preventing the sterilant from making direct contact with the device
 - b. Because instruments that come in contact with them will require longer exposure and dry times
 - c. The oils cannot be removed from devices
 - d. Oil on devices voids warranties
12. Modern sterilizers can clean and sterilize instruments.
 - a. True
 - b. False
13. If someone is seen disregarding correct work area practices:
 - a. They should be removed from the department immediately
 - b. The incident should be recorded to support disciplinary action
 - c. The incident should be treated as a teaching and learning opportunity
 - d. The work area should be deep-cleaned immediately
14. Maintaining the instrument work-area:
 - a. Is every Sterile Processing employee's responsibility
 - b. Is the supervisor's role
 - c. Is EVS personnel's role
 - d. Is the role of third-shift staff
15. Which statement is true for the SPD?
 - a. All hair except eyebrows and eyelashes must be covered
 - b. Short hair needs no covering
 - c. Hair covering is not required for visitors
 - d. Beard/mustache coverings are required only in clean areas

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