

## PCI.7ME1

The April 2019 issue of JCI Insight identified the top scored measurable elements for the Joint Commission International Accreditation Standards for Hospitals and Academic Medical Centers (AMC), 6<sup>th</sup> edition for surveys conducted in 2018. The frequently cited measurable element in eighth place was PCI.7ME1 “The hospital follows professional practice guidelines for sterilization techniques that best fit the type of situations for sterilization and devices and supplies being sterilized.” Improper cleaning and sterilization has been shown as a major risk for the transmission of infection. Sterilization is defined as a validated process used to render a product free of all forms of viable microorganisms. Devices that must be sterilized are devices that contact sterile tissue or the vascular system and are classified as critical devices by the Spaulding Classification. Examples of equipment requiring sterilization are surgical instruments, dental instruments, implants, and cardiac catheters.

Each step in the process of cleaning, disinfection and sterilization is critical in preventing infection. There are many factors that produce risk in this process and include, not following manufacturer’s instructions for use; improper training to perform the cleaning, disinfection, and sterilization processes; not following standard procedures; using expired detergents or disinfectants; and design flaws in the equipment. This is not an all-inclusive list of risk factors. It is imperative that all areas within the organization where sterilization is performed are using current evidence-based guidelines for the process and are part of the infection prevention program for oversight.

The following are actual survey findings for this measurable element.

Throughout the hospital, hinged instruments were sterilized and stored in the closed position, thus preventing adequate sterilization at the articulating surfaces, as recommended by best references such as the Association for the Advancement of Medical Instrumentation, American National Standards Institute (AAMI/ANSI).

Single and multiple-pack hinged instruments, such as hemostats and forceps, were sterilized and stored in the closed position, thus preventing adequate sterilization at the hinge and articulating surfaces.

The hospital followed professional practice guidelines for sterilization techniques; however, air handling in the clean and sterile rooms did not meet industry standards for air exchanges and positive pressure. In addition, the sterile room had a window with an open-air fan, which created a direct connection to outside.

The following observations did not follow the professional practice guidelines for sterilization of surgical instruments:

1. Single and multiple-pack hinged instruments, such as hemostats, scissors and forceps, were washed in open position; however, they were sterilized and stored in the closed position, thus preventing adequate sterilization at the hinge and articulating surfaces.
2. The sterile package labeling system was not uniform. For example: some labels documented production date, some had only expiration date, and some had the date without indicating whether it was the production or expiration date. This was observed in several Operating Theater rooms and patient care areas.