



Dishwashers vs. instrument washers; Reprocessing steps have unique differences

by Ray Taurasi

Q We are a very small but busy, private surgery center. We have been manually washing all of our surgical instruments in our instrument room. Our case volume has increased especially with eye and ortho surgeries. The instrument room has become very crowded and we need more than the one wash sink. I am thinking about getting an automatic washer but the space is very tight I would need to find a small one that would fit under the counter. Our reserve funds are limited for non-patient equipment; I would like to know if a regular dishwasher would be allowed as an instrument washer.

A Dishwashers are inappropriate for washing and decontaminating surgical instrumentation and should never be used for this purpose. Automated washers for medical devices are quite different than a dishwasher. They are programmed with very special and controlled cycles based on the medical devices being cleaned. These washers are designed specifically for the cleaning and disinfection of medical devices and their performance is validated for cleaning performance efficacy of these items. The various phases of program cycles may run at different temperatures, dispensing appropriate water levels and chemistries at specific concentrations.

They are designed with special spray arms dispensing the water and chemicals at proper pressure and times to provide the required mechanical action to remove challenging organic soils. Instrument washers are defined as medical equipment and must meet FDA performance requirements for pre-market approval. It sounds like your reprocessing practices and facilities are in need of some substantial modifications to be able to perform your duties in compliance with various professional regulations and standards.

You mentioned that you are doing eye and orthopedic surgeries. Manufacturers of medical devices and surgical instrumentation are required to provide instructions for use (IFU) of their items which must include the care, handling and, when appropriate, cleaning and reprocessing of these critical medical devices. It is imperative that the manufacturer's IFU be precisely followed when reprocessing medical devices.

Many IFUs specify the required use or automated processing equipment such as ultra-sonic and instrument washers. Manual cleaning may also require special tools and multiple sinks to comply with IFUs and standards. I suggest that you immediately obtain copies of the Association for the Advancement of Medical Instrumentation (AAMI) ST79 standards which provides information on the reprocessing and sterilization of medical devices (AAMI.org).

Another valuable resource would be the International Association of Healthcare Central Service Materials Management (IAHC-SMM) iahcsmm.org, which provides several educational materials, publications, and boxed courses all related to sterile processing.

I would also recommend that you solicit the resources and assistance of Infection Control, OR, and Sterile Processing colleagues from your healthcare organization or those from your community. Breaches in proper technique in the reprocessing and sterilization of medical devices places healthcare workers

and patients at a serious risk of infection, injury and even death from cross-contamination. Please be proactive in gaining the required expertise and support to facilitate the necessary quality improvement measures and protocols.

Q I am a surgical technologist and was recently asked to run CSP until a new lead tech can be found. I must admit I am a bit overwhelmed but learning every day. I was wondering if it is essential to sanitize all soiled items returned to CSP or is decontamination/disinfection sufficient prior to sterilization?

A It is important to realize that decontamination, sanitization, disinfection and sterilization are each different and unique processes. The first step in reprocessing involves thorough cleaning and decontamination, which is the removal of soil from used materials. The second step involves a microbicidal process such as sanitization, disinfection or sterilization.

The objective of decontamination is to protect individuals from disease caused by contact with pathogenic organisms on soiled medical devices. Thorough cleaning, while an essential first step may not always be sufficient to assure an item is safe to handle. Currently there is no standard to measure just how "clean" or safe to handle an object may be; therefore to insure that harmful microorganisms are destroyed a microbicidal process may be employed. Medical devices that have been contaminated by blood, body fluids or large microbial populations must always be subjected to a microbicidal process after cleaning. Deciding which process to use is a risk versus benefit decision for each item you process. Therefore a clear understanding of these processes is imperative.

Sanitization is suitable for easily killed microorganisms and it can reduce the number of microbial contaminants on an inanimate surface to a relatively safe level. Following thorough cleaning the objects are rinsed by hot water or steam purged for a designated period of time depending on method used. Examples of sanitizing equipment include: cart washes, steam guns, and instrument washer (some also provide thermal disinfection). Sanitization is adequate for items that only come in contact with the surface of unbroken skin.

Disinfection provides a higher level of safety and can be used on work surfaces, medical devices, and equipment that have come in contact with highly contaminated substances such as body fluids and blood. The disinfection process may be accomplished either by a thermal, chemical or UV exposure. Pasteurization is an example of the thermal disinfection process as is the disinfection rinse in a washer disinfector. Disinfection processes used in decontamination are effective in the destruction of most microorganisms excluding spores. **HPN**

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