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Healthcare Waste Institute

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Guidance on Washing Reusable Containers

This document was developed by the members of the NWRA Healthcare Waste Institute (HWI) to provide voluntary guidelines for the cleaning of reusable containers. Currently, no standards exist for thoroughly cleaning reusable waste collection containers in healthcare. These guidelines were developed so that the industry could exercise and maintain best practices for cleaning reusable containers intended for the collection and transport of regulated medical waste (RMW) or infectious waste. The voluntary guidelines contained within this document represent the minimum standards for cleaning reusable containers and are not intended to replace, interpret, or circumvent any applicable local, state, or federal regulations, statutes, or guidance. These guidelines are not intended to address reusable containers that transport chemotherapy or pharmaceutical (hazardous and non-hazardous) wastes.

The data available supports the use of reusable containers demonstrating that there is minimal risk for the transmission of infectious disease. However, HWI recognizes the need to improve upon a safe approach and present minimum national standards recommended for reusable containers.

It is recommended that one of the following three methods be employed for cleaning reusable containers. These methods will protect the longevity of the containers while establishing minimum criteria to protect workers.

Minimum standards for cleaning reusable containers:

Each time a reusable container is emptied; it must be thoroughly cleaned on all surfaces using one of the following methods:

- **Method 1:**

  Wash Stage - Detergent and water using an agitation method or by pressure and movement to remove soils; and,

  Disinfectant Stage - Utilize an EPA registered disinfectant carefully following manufacturer's label instructions

- **Method 2:**

  Wash Stage - Detergent and water using an agitation method or by pressure and movement to remove soils; and,

  Disinfectant Stage - Exposure to heated rinse water at a minimum of 180°F (82°C) and a maximum 195°F (90°C) for a minimum of 15 seconds, or until the surface reaches a temperature of 160°F (71°C).

Method 3:

Wash Stage - Detergent and water using an agitation method or by pressure and movement to remove soils; and,
Disinfectant Stage – Immersion in or rinsing with, one of the following chemical sanitizers for a minimum of 3 minutes:

- Hypochlorite solution (500 ppm available chlorine)
- Phenolic solution (500 ppm active agent)
- Iodophor solution (100 ppm available iodine)
- Quaternary ammonium solution (400 ppm active agent)
- Other organic, plant-based, non-chemical disinfectant that has been certified by the EPA

Other methods may also be utilized as appropriate. These could include ultraviolet lighting for disinfection.

Effectiveness of Process:

Ideally, the responsible party should establish base-line criteria with parameters to effectively monitor and measure the efficacy of the process. Through repeated testing, the system can be effectively validated. There are several products and methods that can aid in this process. First, it is recommended that a visual assessment be conducted to measure how effective the solids or liquids were mechanically removed from the surface. However, since this is an insufficient indicator that the surface is clean, the following products can be utilized to evaluate surface cleanliness:

- Fluorescent Powder or Gel
- ATP Bioluminescence Reader/Meter
- Microbiological Method - where fewer than 2.5 colony forming units remaining would be considered a PASS

Manufacturers' user manual:

When purchasing a reusable container, the container may include a user manual. These user manuals include descriptions for suggested decontamination guidelines. It is recommended that these recommendations be considered when deciding the appropriate method for cleaning and testing for efficacy, if applicable.

Regulatory compliance:

Federal and state authorities may have specific standards that conflict with or add to this guidance. Also, wastewater discharge standards may be impacted by the selected methodology. It is important that these factors be carefully considered when selecting the appropriate standard for a facility.

Clean container storage and handling:

Once the containers are cleaned, it is possible to contaminate them through exposure to contaminated containers. Operational practices should be written and staff trained to avoid this.

Due diligence:

When reusable containers enter the healthcare setting, it is important that the healthcare facility have confidence that the reusable containers are being cleaned properly. The following questions are reasonable expectations:

- Are the containers approved by the FDA?
- If so, what is the 510K number?
- Who cleans the container?
- What methodology of cleaning is used?
- Is there any validation for cleaning?
- How frequently is validation conducted?
- How are the containers stored to avoid contamination?

References:

Rutala WA, Weber DJ, HICPAC. *CDC Guideline for Disinfection and Sterilization in Healthcare Facilities*. November 2008

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Leas BF, Sullivan N, Han JH, Pegues DA, Kaczmarek JL, Umscheid CA. Environmental Cleaning for the Prevention of Healthcare-Associated Infections. Technical Brief No. 22 (Prepared by the ECRI Institute – Penn Medicine Evidence-based Practice Center under Contract No. 290-2012-00011-I.) AHRQ Publication No. 15-EHC020-EF. Rockville, MD: Agency for Healthcare Research and Quality; August 2015. http://www.effectivehealthcare.ahrq.gov/ehc/products/592/2103/healthcare-infections-report-150810.pdf