

Routine Cleaning of Vaccine Storage Equipment

Preamble

Health care-associated infections are infections that occur as a result of health care interventions in any health care setting where care is delivered and is a client safety issue. Routine maintenance and cleaning of vaccine storage equipment helps to ensure optimal functioning, the useful life of equipment, and discourages bacterial and fungal growth.

These specific recommendations are based on the Public Health Agency of Canada - National Vaccine Storage and Handling Guidelines for Immunization Providers (2015) <http://healthycanadians.gc.ca/publications/healthy-living-vie-saine/vaccine-storage-entrepotage-vaccins/index-eng.php> and manufacturer's instructions for specific equipment. It is important to review manufacturer's recommendations and follow their guidelines for specific details related to cleaning and servicing the refrigerators and freezers.

Infection Control

These recommendations assume that health care staff use routine practices for basic infection prevention and control. This includes appropriate hand hygiene and cleaning of clinical environmental surfaces such as counter tops. Use of personal protective equipment (PPE) such as masks, gowns, face shields and gloves is not usually necessary unless there is a potential for splashing or the product being used recommends use of PPE.

Cleaning is a double wipe process with items being cleaned first and then disinfected unless the manufacturer recommends an alternate process, such as with the vaccine refrigerators. Check the cleaner / disinfectant product monograph for compatibility and the appropriate contact time.

Anything visibly dirty or contaminated must be cleaned immediately, regardless of a cleaning schedule.

The content of these guidelines include recommendations for routine cleaning and documentation. Cleaning recommendations are to be followed regardless of the setting e.g., health centre clinic, outreach clinic, etc. Staff members (or contracted staff members / service technicians) responsible for this cleaning activity will be assigned locally from an operational perspective.

Cold chain must be always be maintained during the process of cleaning equipment used for vaccines.

Vaccine Refrigerators (Domestic and Laboratory Grade) / Walk in coolers:

Daily Cleaning	High touch areas such as door handles should be cleaned daily for high use vaccine refrigerators to weekly for less frequent use.
	A low level cleaner/disinfectant may be used for the high touch areas. Check the manufacturer's recommendations for compatibility between the product and the specific material to be cleaned.

<p>At Minimum - Annual Cleaning (or more frequently as needed)</p>	<p>Check the manufacturer's recommendations for specific instructions on a particular refrigerator unit.</p> <p>General guidelines for cleaning a vaccine refrigerator/walk in cooler:</p> <p>Cleaning of coils and motor:</p> <ul style="list-style-type: none"> • Cleaning of the coils and motors on refrigerators may be done by contracted staff and/or according to refrigerator specific manufacturer instructions. • Avoid cleaning the coils and motor before a weekend or prolonged absence of staff. Accidental damage to the coils could cause a problem that may not be detected until the next work day. • Notify Alarm Company (if applicable) that maintenance is taking place. • Unplug the vaccine refrigerator unit. • Use a soft brush, cloth or vacuum cleaner with an attached hose to remove any dirt or dust from the surface of the coils. • After cleaning, plug in the unit and document the power interruption on the vaccine refrigerator temperature log. • Monitor the temperature until it is stable. • This process should only take a few minutes; therefore, it is not necessary to transfer the vaccines to another storage unit as long as the doors remain tightly closed for the duration of the procedure. • Check that the drip pan is not plugged and clean it with warm water and mild detergent. <hr/> <p>Inside compartment:</p> <ul style="list-style-type: none"> • Remove vaccines from the inside of the refrigerator and store them in a functioning unit such as another vaccine refrigerator or an appropriately cooled insulated container. • Notify Alarm Company (if applicable) that maintenance is taking place. • Wash all the inside surfaces and shelves with warm, slightly soapy water. <ul style="list-style-type: none"> ○ Cleaning chemicals are not recommended by manufacturers for cleaning vaccine refrigerators. • Never pour water onto or into the unit. • Dry the inside surface thoroughly with a clean soft cloth then plug in the unit. The refrigerator temperature must reach and stabilize within the proper temperature range before restocking with vaccines. • Remove gel / ice packs and wipe with a clean cloth using mild soapy water, rinse and dry. • Continue to monitor and record the temperature for a few hours to ensure stability. • If vaccines are separated in the refrigerator into individual containers or compartments such as plastic trays, these containers / trays are to
--	---

	<p>be cleaned at the same time as the inside of the refrigerator or more frequently if visibly soiled.</p> <ul style="list-style-type: none"> • Walk-in coolers – sweep mop floors as needed, spills to be cleaned up immediately
--	---

Freezers and/or Laboratory Grade Vaccine Freezers for Ice Pack Storage:

Daily cleaning	High touch areas such as door/lid handles should be cleaned daily for high use freezers to weekly for less frequent use.
	A low or intermediate level cleaner/disinfectant may be used for the high touch areas. Check the manufacturer's recommendations for compatibility between the product and the specific material to be cleaned.
At Minimum - Annual Cleaning (or more frequently as needed)	<p>Check the manufacturer's recommendations for specific instructions on a particular freezer unit.</p> <p>General guidelines for defrosting/cleaning a manual and cyclic defrost freezer:</p> <ul style="list-style-type: none"> • Avoid cleaning the coils and motor before a weekend or prolonged absence of staff. Accidental damage to the coils could cause a problem that may not be detected until the next work day. • Clean coils and motor when unit is unplugged to allow for defrosting. • Use a soft brush, cloth or vacuum cleaner with an attached hose to remove any dirt or dust from the surface of the coils. • Remove the ice packs and store them appropriately while cleaning. • Unplug the unit. • Notify Alarm Company (if applicable) that maintenance is taking place. • Keep freezer door open allowing all the ice to melt. • Loose ice can be removed by hand; no sharp tools should be used to remove ice • A container of warm water (not greater than +50°C) may be placed inside the compartment to reduce defrosting time. • Once ice is melted use mild soapy water to clean the freezer inside and out. • Clean using a soft clean cloth and rinse well with clean water. • Wipe dry or allow to completely air dry before connecting the power • If defrosting is necessary once a month or more frequently, check the seals and that the door/lid is closing properly. • Once unit stabilizes to proper temperature range restock with frozen packs.

Insulated Containers / Insulating Materials / Ice and Gel Packs / Temperature Monitors

- Check the manufacturers' recommendations for specific instructions for cleaning a particular insulated container, materials or thermometers.
- Insulated containers with wipe-able fabric/material:
 - The inside should be cleaned with a cleaner / disinfectant wipe on a minimum of a monthly basis (more often depending on use and visible soil).
 - The outside of the insulated container should also be cleaned with a low level cleaner / disinfectant (pre-moistened wipes or ready-to-use liquid) on a regular basis, at least monthly, and when visibly soiled. Insulated containers used for hospital immunization and taken in to the hospital should have the outside cleaned immediately upon return to the site / office prior to being placed back on a shelf.
 - Check the cleaner / disinfectant product monograph for compatibility and the appropriate contact time.
- Insulated containers should **NOT** be immersed in water or other liquid.
- Insulated containers should be stored off the floor.
- Wipe individual gel / ice packs with a clean cloth using mild soapy water, rinse and dry monthly

SUMMARY – Cleaning Duties	
Daily cleaning	<ul style="list-style-type: none"> • highly used refrigerator and freezer door handles • insulated containers taken into a hospital
Weekly cleaning	<ul style="list-style-type: none"> • less frequent use of refrigerator and freezer door handles
Monthly cleaning	<ul style="list-style-type: none"> • inside of insulated containers • temperature monitors • outside of insulated containers • frozen and refrigerated packs/gel packs • thermometers and temperature monitors
Annual cleaning (or more frequently as needed)	<ul style="list-style-type: none"> • refrigerators • freezers • walk in cooler