

2- Vaccine Emergency Plans & Response

Vaccine emergencies are any situations where a vaccine COLD CHAIN BREAK has occurred or may occur soon if the necessary steps aren't taken quickly and include situations such as:

1. **Partial/ complete failure of the fridge** making it unable to hold temperatures between 2°C & 8°C. Fridge failures include situations when the fridge gets too cold (without being adjusted too cold)
2. **Loss of electrical power to the fridge motor** (local power outages, electrical circuit breaker shut-off in the building, fridge power switch shut off, unplugging, damaged electrical cord)
3. **Vaccine handling issue** (e.g. not transferring vaccines to the fridge promptly after picking them up, after taking a dose from a package not returning the remainder to the fridge)

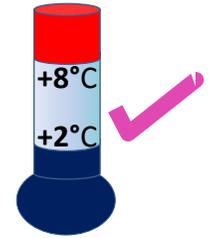
A. Prevention & Preparation:

Preventing a vaccine emergency is preferable to having to respond to one. Simple steps to prepare and avoid the most common Cold Chain Breaks and vaccine fridge and handling issues include:

1. check and record fridge temperatures twice daily --- contact Public Health right away for advice if temperatures go out of the **+2°C to +8°C cold chain range.**
2. have a latch and/or closure-spring on the fridge door to make sure it closes properly
3. put "Vaccine Fridge - Do Not Un-Plug" stickers on the **fridge, electrical plug receptacle, and (contact your Building Manager) fridge circuit breaker on the electrical panel**
4. temperature-buffer (i.e. water bottles, gel blankets) in the fridge to slow temperature changes
5. keep fridges ...
 - away from hot equipment and out of direct sunlight
 - level & stable (i.e. adjust the legs if necessary)
6. temperature adjustment: if you need to adjust the FRIDGE and/or FREEZER (even if they're in separate compartments) temps, to avoid making the fridge too cold/hot make only small changes, then re-check a few hours later to see the results and repeat if needed. Check the Owner's manual if necessary to confirm how to adjust the temperature.

Preparing:

7. if possible pre-arrange an alternate, monitored fridge to move your vaccines to if needed
8. make sure all Staff responsible for vaccine handling & fridge monitoring know the details of the Vaccine Emergency Plan, their roles in it, and where the office copy is located.



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B. Response Steps: Responding to a Vaccine Emergency (fridge/power failure, vaccine handling issue)

If vaccine storage temperatures go out of the +2°C to +8°C range:

1. 'QUARANTINE' the exposed vaccines:

- (if possible) Keep the exposed vaccine under refrigeration. If alternate refrigeration space is not available onsite then do what you can to keep the vaccines cool, but not freezing, (e.g. transfer them to a transport cooler with any gel blankets/ ice packs available)
- Clearly mark (tag/ label) the vaccines and fridge 'QUARANTINE – Do Not Use Until Further Notice'
- Contact Public Health for guidance on the next steps to take
- Maintain the Quarantine until Public Health provides guidance & Follow
- DO NOT DISCARD any vaccines regardless of their condition. If Public Health advises that some of the vaccines are unusable then return the exposed products to Public Health as Cold Chain Break wastage.

2. Cause(s)? INSPECT & CORRECT (if possible)

- Simple Cause?: (e.g. fridge door open, power cord unplugged) → CORRECT & continue to monitor
- Max-Min thermometer: Is it displaying the *C or *F scale? the 'OUT' (i.e. fridge temp)?

3. Power & Fridge Failures: VACCINE TEMPERATURE MONITORING and RECORDING

- ➔ Maintain monitoring throughout a power/ fridge failure and/or vaccine relocation.
- ➔ At the time the incident is discovered:
 - record 'Max'/'Min'/ & Current temps from the Max-Min thermometer then RESET/ CLEAR it, and
 - record the date, time, and any other relevant info [e.g. observations/ causes]
- ➔ Provide monitoring records/details to Public Health ASAP to ensure the quickest response possible.

4. Fridge Failure: (breakdown or running but unable to maintain temperatures between +2°C and +8°C)

Transfer vaccines to either:

- A monitored back-up fridge onsite, or
- (if a back-up fridge is not available) a cooler box with any cold chain supplies (gel blankets, ice packs) available for transfer off-site

5. Power Failures: Expected by BC Hydro [ph#: 1-888-POWERON, Web: www.bchydro.com/outages]

- Less than 4 hrs – keep the fridge door closed and continue to monitor temperatures
- More than 4 hrs – move vaccines to a running back-up, monitored fridge or, if that's not available transfer them to a cooler box with cold chain supplies