

Vaccine Cold Chain Maintenance

Step 1: Preparation



Before placing your order for VFC vaccines, make sure that thermometers are present and are correctly placed in the center of the refrigerator and freezer. If thermometers with sensors are used, sensors should be placed in the center of the units; wire leading to sensor should be taped along edge of shelf.



Temperature log must be present; temperatures must be recorded twice daily. Refrigerator temperature should be within the range 2° to 8° C (35° to 46° F). Freezer temperature should be $\leq -15^{\circ}$ C (+5° F).

**Note that small dormitory-style refrigerator/freezer units are not suitable for storage of frozen vaccine as they cannot be reliably maintain the required temperature.*

Step 2: Receiving Vaccines

Vaccines are placed in the refrigerator or freezer **IMMEDIATELY**.

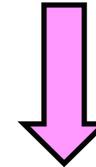


Yes

No action necessary.

No

Possible cold chain failure. Go to Step 5.



Step 4: Storing Frozen Vaccines



The routine temperature check (twice daily) shows that the current temperature is $\leq -15^{\circ}$ C (+5° F). 

Yes

No action necessary.

No

If current temperature is **greater than** the appropriate temperature, **cold chain failure has occurred. Go to Step 5.**

Step 3: Storing Refrigerated Vaccines

The routine temperature check (twice daily) shows that the current temperature is within the range 2° to 8° C (35° to 46° F). 

Yes

No action necessary.

No

If current temperature is **less than or greater than** the appropriate temperature range, **cold chain failure has occurred. Go to Step 5.**



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Step 5: Procedure to Follow in Case of Cold Chain Failure

Move vaccine to safe storage at appropriate temperature immediately. Mark **"DO NOT USE"** and keep separate from other vaccines until viability of the vaccine can be assessed. **Do not assume that vaccine is not viable until you have contacted the manufacturer.**

Call the vaccine manufacturers at the phone numbers listed below. Be ready to report lot numbers of the affected vaccines, the length of time vaccines were stored at inappropriate temperatures, and the temperature of the refrigerator and/or freezer when cold chain failure was discovered.

| | |
|-------------------------|--|
| GlaxoSmithKline: | 1-800-366-8900 |
| MedImmune: | 1-877-358-6478 |
| Merck & Co: | 1-800-672-6372 (varicella line: 1-800-982-7482) |
| Norartis: | 1-800-244-7668 |
| Sanofi pasteur: | 1-800-822-2463 |
| Wyeth-Lederle: | 1-800-395-9938 |



If the vaccine manufacturer determines that the vaccine is still viable, return vaccine to inventory and use normally. Complete an incident report and vaccine worksheet and fax to (717) 214-7223.

If the vaccine manufacturer determines that the vaccine is still viable but with a new, shorter expiration date, mark the adjusted expiration date on the box, return vaccine to inventory, and use normally.

If the vaccine manufacturer determines that the vaccine is not viable, bag the vaccine and keep separate from other vaccines. Report wasted vaccines, including lot numbers, on the Vaccines Expired, Wasted form. Unopened vials of expired and wasted vaccines must be returned to McKesson.



Follow the flow chart to ensure that your vaccines are stored safely and remain viable from the time they are delivered to your office until they are administered to your patients. If you have any questions, call the PA VFC Program at (888) 646-6864.