

Vaccine Storage & Handling Guide

Off-Site/Drive-up/Drive-through Influenza Vaccination Clinics

The proper storage and handling of vaccine are important to ensure potency of the vaccine. The reduced potency of vaccines results in inadequate immune response and poor protection against the disease. Therefore, it is important to maintain proper cold chain or a temperature-controlled environment to maintain vaccines in optimal condition.

Use this guide to help you with vaccine storage and handling at an off-site, drive-up, or drive-through flu vaccination clinic.

Section 1: Vaccine Packing & Transport Supplies

Vaccine Storage

- **Best Practice:** Use a portable vaccine refrigerator or other purpose-built, vaccine transport containers for transport and off-site storage.
 - Purpose-built vaccine transport containers will maintain a consistent temperature range for up to 72 hours and provide thermal protection of vaccines during transport and storage through out an offsite, drive-up, or drive through clinic.
 - To find companies that sell purpose-built vaccine transport containers enter “**qualified container and pack out for vaccines**” in your web browser.
- If purpose-built vaccine transport containers are not available, hard sided or styrofoam insulated coolers with at least 2-inch thick walls. may be used.
 - Containers should hold appropriate temperatures for up to 8 hours.

Packing Materials

If not using a purpose-built, vaccine transport container, you will need the following materials for vaccine packing:

- **Best Practice:** Coolant materials such as phase change materials (PCMs).
 - PCMs are engineered packing supplies that help control container temperatures during vaccine transport or shipping.
 - PCMs maintain a proper temperature 39°F-41°F (4°C-5°C).
 - To find companies that sell PCMs enter “**phase change material gel packs**” in your web browser.
- If PCMs are not available use conditioned frozen water bottles or cold packs.
 - Condition cold packs by storing them at room temperature until they perspire (1-2 hours). Alternatively, condition frozen water bottles by placing them under cool or lukewarm water until the ice block inside spins freely (fewer than 5 minutes).
- Insulating materials such as bubble wrap and corrugated cardboard, enough to form two layers per container.
 - To find companies that sell non-PCM packing materials enter “**vaccine packing materials**” in your web browser.

Temperature Monitoring

- Digital data logger (DDL).
 - Accuracy of +/-1°F (+/-0.5°C) with a current and valid certificate of calibration testing
 - Buffered temperature probe
 - Digital display
 - To find companies that sell data loggers enter “**digital data loggers**” in your web browser.
- VFC [Hourly Vaccine Temperature Log](#)

Section 2: Vaccine Packing & Transport

Off-site/Drive-up Vaccine Transport and Storage

- If using purpose-built transport containers prep the containers following manufacturers' guidelines.
- If you use hard sided insulated containers or insulated Styrofoam containers, follow the [Transporting Refrigerated Vaccines](#) guidelines for packing containers.
 - **Insulating materials:**
 - Bubble wrap – a layer at least 1 inch thick above and below between the vaccine and the water bottles or cold packs.
 - Cardboard – two pieces cut to fit interior space of the cooler above and below between the vaccine and the water bottles or cold packs.
- Refrigerated vaccines **MUST** be maintained at temperatures between 36°F and 46°F (2°C and 8°C) during transport and off-site clinics.
- Ensure that the probe is connected to the digital data logger and it is recording.
- Place the DDL probe as close as possible to the vaccines, and check and record the temperatures hourly.
- Pre-chill buffered probe for at least 5 hours in refrigerator.
- Keep the DDL display on the outside of the container so that you can easily see the temperatures.
- Transport only the amount of vaccine needed for the clinic.
- Check temperature hourly and document on temperature log.
- Vaccines exposed to out-of-range temperatures (temperature excursion):
 - Label the container(s) "Do Not Use" and keep the containers closed.
 - Alter your supervisor immediately and report the out of range temperatures.
 - Document details of the temperature excursion on the Hourly Temperature Log.
 - Contact the vaccine manufacturer(s) to determine if the vaccine is viable.
 - **Best Practice:** the vaccine should not be used until viability is determined.
- After the clinic return the vaccines to their original storage units.

Section 3: Resources and Tips

- Keep the container closed as much as possible.
- Avoid leaving containers in areas where they are exposed to direct sunlight.
- Vaccines that are distributed for immediate administration should be stored in a tray or a small cooler with a cold pack and used within 30 minutes of arrival to a vaccination station.
 - Place a paper towel over the cold pack to create a barrier.
 - Place the vaccine syringes on the paper towel NOT directly on the cold pack.
- Remove only the amount needed at one time for preparation and administration.
- For storage and handling trainings visit www.eziz.org.
- [Refrigerated Vaccine Transport Log](#)