

## Vaccine Management

Proper vaccine storage and handling practices play an important role in protecting our communities. Vaccine viability is the shared responsibility of everyone involved, from the time vaccine is manufactured until it is administered. When administering away from a monitored storage unit, the vaccine is more likely to experience temperature fluctuations, putting efficacy and safety at risk. Vaccines taken out of the vaccine storage unit for an offsite clinic should always be stored at temperatures between 2°C and 8°C, until ready to draw up doses for administration.

Following recommended guidelines and best practices for packing vaccines during the offsite clinic will help prevent reduced vaccine potency or vaccine failure. For the safe transport and storage of vaccines, proper supplies are essential. Do not transport the vaccine unless all conditions are met.

## Storage Options for Offsite Clinics

To ensure vaccine viability, you must select a suitable storage option for offsite clinics and monitor the temperatures continuously. Suitable storage includes:

**Vaccine carriers with phase change panels:** The Immunization Program [Vaccine Carrier Borrowing Program](#)<sup>1</sup> is available to any location planning an offsite clinic. If interested in learning more, email [AHS.VDHImmunizationProgram@vermont.gov](mailto:AHS.VDHImmunizationProgram@vermont.gov).

To condition the panels appropriately and assemble the carrier according to the instructions included, planning is required.

**Portable vaccine storage units:** Portable units are available to purchase. See [Recommendations for Portable Refrigerators](#)<sup>2</sup> for more information.

Ensure the unit is in working order and plugged in to regulate temperature before packing the vaccine.

### **Hard-sided or Styrofoam coolers are not suitable storage for offsite clinics**

Use the [packing vaccines during offsite clinic guidance](#)<sup>3</sup> only when transporting vaccines a short distance, from one monitored unit to another. This process uses frozen water bottles conditioned to appropriate temperatures before packing. **Do NOT use ice packs. Never pack in soft-sided coolers.**

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<sup>1</sup> [www.healthvermont.gov/sites/default/files/documents/pdf/HS-IZ-Vaccine-Carrier-Program.pdf](http://www.healthvermont.gov/sites/default/files/documents/pdf/HS-IZ-Vaccine-Carrier-Program.pdf)

<sup>2</sup> [www.healthvermont.gov/sites/default/files/documents/pdf/ID\\_IZ\\_INFOHCP\\_VCPVAVP\\_PORTABLE\\_REFRIGERATORS.pdf](http://www.healthvermont.gov/sites/default/files/documents/pdf/ID_IZ_INFOHCP_VCPVAVP_PORTABLE_REFRIGERATORS.pdf)

<sup>3</sup> <https://www.cdc.gov/vaccines/recs/storage/downloads/emergency-transport.pdf>

## Temperature Monitoring

- Transport vaccine directly from the practice to the offsite clinic location and return any viable unopened vials to the office refrigerator the same day.
- Staff should continually monitor the temperature in the cooler with a LogTag data logger and record temperatures on the [Hourly Temperature Log<sup>4</sup>](#) during the clinic and upon return.
- You may not use an offsite refrigerator unless the Immunization Program has approved it.
- The vaccine may not be left in an approved offsite refrigerator overnight.

**Submit the data logger information and hourly temperature log to the Immunization Program only if the vaccine experienced an out-of-range temperature.**

## Temperature Excursions

If the vaccine experiences an out-of-range temperature, immediately contact the Immunization Program at 1-802-863-7638. Vaccines exposed to temperature excursions must be labeled “Do Not Use” until more information is gathered by the Immunization Program.

In a temperature excursion, having a laptop with the appropriate [LogTag software<sup>5</sup>](#) installed and a cradle at the clinic location will help expedite the proper procedure.

Please refer to the [Temperature Excursion Protocol<sup>6</sup>](#) for more information.

## Transporting Opened Vials and Pre-drawn Syringes

You may need to transport an opened vial or pre-drawn syringe at the end of a clinic to prevent waste. Other special circumstances, such as immunizing homebound patients, may warrant transport outside of a clinic setting, but generally, this should be rare. Even when transporting a very short distance, proper temperature monitoring and documentation are required. Always pack in a temperature monitored cooler according to the [above guidelines](#).

### Pre-drawn Syringes

Transporting pre-drawn syringes has additional requirements to ensure what gets administered and documented is accurate. Documentation must include:

- Name of the vaccine and lot number
- Exact beyond use date and time
- Amount of vaccine in the syringe
- Initials of the person preparing the syringe

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<sup>4</sup> [https://www.healthvermont.gov/sites/default/files/documents/pdf/ID\\_IZ\\_INFOHCP\\_VCVPVAVP\\_Hourly%20Vaccine%20Temperature%20Log.pdf](https://www.healthvermont.gov/sites/default/files/documents/pdf/ID_IZ_INFOHCP_VCVPVAVP_Hourly%20Vaccine%20Temperature%20Log.pdf)

<sup>5</sup> <https://logtagrecorders.com/software/Ita3/download/>

<sup>6</sup> <https://www.healthvermont.gov/sites/default/files/documents/pdf/COVID19-Vaccine-Temp-Excursion-Protocol.pdf>

## Clinic Checklist

### Before the Clinic

- Plan for vaccine needs accordingly. If additional vaccine is needed for a clinic, leave a comment in the VIMS system when ordering so that larger orders are not considered an error and adjusted.
- Practicing with the cooler is recommended before the clinic date. Practice will help determine how long the cooler can maintain temperature and if the data logger works appropriately.
- Condition the data logger glycol bottle to the appropriate temperature by placing it in the refrigerator at least one hour before packing.
- For vaccine carriers, lay the panels flat in the refrigerator at least 24 hours before the clinic day and avoid stacking them.
- Only remove vaccine from the monitored unit after it is confirmed that the transport cooler maintains proper temperatures.
- Complete the top portion of the Hourly Vaccine Temperature Log as soon as the vaccine is placed in the transport cooler.

### During the Clinic

- Monitor the vaccine temperature using the data logger provided by the Immunization Program.
- Remove vials from the vaccine carrier/cooler only when ready to use.
- Document the time when each vial is removed from the cooler.
- Do not exceed the time a vial can remain at room temperature.
- If pre-drawing syringes:
  - Draw up vaccines only after arriving at the clinic site or mass vaccination event.
  - Monitor patient flow to avoid drawing up unnecessary doses.
  - Pre-draw the vaccine into a syringe only when ready for administration.
  - Track the Beyond Use Time of each pre-drawn syringe and ensure administration or disposal when reached.
- On the Hourly Vaccine Temperature Log, review and document temperatures once every hour during the clinic day.
- If the temperature is out of range, contact the Immunization Program at 800-640-4374.

### After the Clinic

- Return viable unopened vials to the refrigerator and record the time on the hourly temperature log.
- Download the LogTag data logger and review the hourly temperature logs to verify that the vaccine cold chain has been maintained.
- Return the vaccine carrier panels to the refrigerator and lay flat.
- Keep all the supplies for the vaccine carrier together for future use.
- Only if there was a temperature excursion, email the data logger download the day after the clinic to [AHS.VDHImmunizationProgram@vermont.gov](mailto:AHS.VDHImmunizationProgram@vermont.gov)

## Special Considerations for the COVID-19 Vaccine

### Transport

When transporting individual vials, avoid jostling. All vaccines should undergo a visual inspection before use because unsecured vials could become damaged during transport. If vials are inadvertently bumped, they should be righted. The risk to the product is minimal, and vials that are temporarily knocked over and remain undamaged may still be used.

- Vials should be stored upright.
- Trays or cartons that house the vials should be as small as possible.
- If you have to transport a box with missing vials, please replace that space with bubble wrap or crumpled paper to ensure vials remain secure in the container.
- Always store vaccines in their original packaging with lids closed until ready for administration. This protects them from light and provides additional thermal protection and stability.
- For Pfizer-BioNTech Only - Transport diluents with the corresponding vaccine (in separate containers due to unique storage requirements) so there are always equal amounts of vaccines and diluents for reconstitution. Always adhere to diluent storage and handling requirements when transporting and redistributing.

### Clinics

- If using the Moderna vaccine, ensure all vials are moved to refrigerated temperatures the night before a clinic to allow for adequate thaw time.
- Bring completed [Pfizer-BioNTech<sup>7</sup>](#)/[Moderna<sup>8</sup>](#) Beyond Use Date (BUD) printed labels.
- Pfizer-BioNTech vials must reach room temperature before dilution.
- Pfizer-BioNTech vaccine must be mixed within 2 hours or go back into the vaccine carrier/cooler. Once reconstituted it must be used within 6 hours.
- Once at room temperature, Moderna vaccine must be used within 24 hours and cannot go back into the freezer. It can be placed back in the refrigerator as long as the cumulative time does not exceed 24 hours at temperatures between 8°C and 25°C. Once punctured, it must be used within 12 hours.
- Janssen (Johnson & Johnson) unpunctured vaccine vials can be stored at room temperature (between 9°C and 25°C) for up to 12 hours. Once punctured, the vaccine may be stored at room temperature for up to 2 hours, or between 2°C and 8°C for 6 hours
- At the end of the clinic day, you will need to use all doses in opened vials and any thawed vials that will expire before your next clinic date. Please see the [Minimizing Vaccine Waste Policy<sup>9</sup>](#) document.

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<sup>7</sup> <https://www.cdc.gov/vaccines/covid-19/info-by-product/pfizer/downloads/bud-tracking-labels.pdf>

<sup>8</sup> <https://www.cdc.gov/vaccines/covid-19/info-by-product/moderna/downloads/bud-tracking-labels.pdf>

<sup>9</sup> <https://www.healthvermont.gov/sites/default/files/documents/pdf/COVID19-Vaccine-Minimize-Waste-Policy.pdf>