

VACCINE STORAGE AND HANDLING TABLE (Post on Your Storage Units)

It is important to follow proper vaccine storage and handling procedures. Failure to do so can reduce vaccine potency resulting in patients who are not fully protected from disease. This guidance will help ensure your vaccines are stored properly.

VACCINE	ARRIVAL CONDITION ³	STORAGE REQUIREMENTS
DTaP, DTaP-HepB-IPV (Pediarix [®]), DTaP-IPV-Hib-HepB (Vaxelis [®]), DTaP-IPV (Quadracel [®] , Kinrix [®]), DTaP-IPV/Hib (Pentacel [®]) ¹ , Td, Tdap, HepA, HepB (Engerix-B [®] , Recombivax HB [®] , HEPHISAV-B [®] , PreHevbrio [®]), HepA-HepB (Twinrix [®]), Hib (PedvaxHIB [®] , ActHIB [®] 1, Hiberix [®] 1), 9vHPV, IPV, MenACWY (Menveo [®] 1,2, MenQuadfi [®]), MenB (Bexsero [®] , Trumenba [®]), Pneumococcal (PCV13, PCV15, PCV20, PPSV23), aIIV4 (Fluad [®]), HD-IIV4 (Fluzone [®] High-Dose), IIV4, cIIIV4 (Flucelvax [®]), RIV4 (Flublok [®]), LAIV4, Recombinant Zoster Vaccine (RZV, Shingrix) ¹ , Respiratory Syncytial Virus (RSV, Abrysvo TM 1, Arexvy ¹)	Packed with refrigerant. Vaccine should not have been frozen.	Vaccine: Refrigerate immediately upon arrival at 36.0°F to 46.0°F (2.0°C to 8.0°C). DO NOT FREEZE⁴. Protect from light: Hib (Hiberix) ¹ , 9vHPV, IPV, MenACWY (Menveo) ^{1,2} , MenB (Bexsero), allIIV4, IIV4, LAIV4, cIIIV4, RIV4, DTaP-IPV-Hib-HepB (Vaxelis), HepB (PreHevbrio), Pneumococcal (PCV15, PCV20), RZV (Shingrix) ¹ , RSV (Arexvy) ¹ MenB (Trumenba) and Pneumococcal (PCV20) syringes recommended to lay flat on shelf to minimize re-dispersion time. Diluent: When packaged with vaccine, store together in the original box in the refrigerator. Never freeze diluent. ¹
Rotavirus Vaccines (RV): RV1 (Rotarix [®]) ^{1,2} RV5 (RotaTeq [®])	Packed with refrigerant. Vaccine should not have been frozen.	Vaccine: Refrigerate immediately upon arrival at 36.0°F to 46.0°F (2.0°C to 8.0°C). DO NOT FREEZE⁴. RV1^{1,2} diluent: Store separately at room temperature or refrigerate at 36.0°F to 46.0°F (2.0°C to 8.0°C). Never freeze diluent. Protect both RV vaccines from light.
Measles, Mumps, Rubella (MMR, M-M-R [®] II-Merck) ¹ Measles, Mumps, Rubella (MMR, Priorix [®] -GSK) ¹	VFC Vaccine shipped from McKesson: Packed with refrigerant. May be frozen. Vaccine shipped directly from Merck: Packed with non-reusable frozen gel packs. Vaccine shipped from GSK packed with refrigerant. Vaccine should not have been frozen.	Vaccine: M-M-R[®]II¹: Refrigerate at 36.0°F to 46.0°F (2.0°C to 8.0°C) OR freeze at -58.0°F to +5.0°F (-50.0°C to -15.0°C) upon arrival. Priorix¹: Do not store in freezer. Refrigerate immediately upon arrival at 36.0°F to 46.0°F (2.0°C to 8.0°C). Diluent: Store separately at room temperature or refrigerate at 36.0°F to 46.0°F (2.0°C to 8.0°C). Never freeze diluent. Protect MMR¹ from light.
Varicella (Varivax) ¹ Measles, Mumps, Rubella, Varicella (MMRV, ProQuad [®]) ¹	Packed with non-reusable frozen gel packs. Merck frozen vaccine shipper, based on size, may maintain temperatures for 2 to 4 days for Varicella ¹ . MMRV ¹ is a 24-hour ship.	Vaccine: Maintain continuously in a frozen state at temperature -58.0°F to +5.0°F (-50.0°C to -15.0°C). Diluent: Store separately at room temperature or refrigerate at 36.0°F to 46.0°F (2.0°C to 8.0°C). Protect Varicella¹, and MMRV¹ from light.

See footnotes and additional information on page 2.

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PLEASE NOTE: This reference is for storage and handling informational purposes only. These recommendations are not a substitute for the package insert included with each biologic.

¹Use only the diluent that comes with the vaccine. For more information on vaccines that need to be reconstituted, refer to “A Quick Reference to Combination and/or Reconstituted Vaccines: Childhood and Adult” at www.michigan.gov/vaccinequicklooks and “Vaccines with Diluents: How to Use Them” at www.immunize.org/catg.d/p3040.pdf.

²Rotarix and Menveo vaccines are available as either a liquid formulation that does not require reconstitution or as a lyophilized vaccine that requires reconstitution.

³If you have questions about the condition of the vaccine at the time of delivery, immediately place the vaccine in the recommended storage unit, label “DO NOT USE” and contact the manufacturer. If you have questions about the condition of Vaccines for Children (VFC) vaccine, contact your local health department.

⁴Discard if the vaccine has been frozen, unless the affected vaccine is VFC vaccine – in which case, mark vaccine “DO NOT USE” and contact the LHD for guidance.

Proper vaccine storage and handling practices play a very important role in protecting individuals and communities from vaccine-preventable diseases. Vaccine quality is the shared responsibility of everyone, from the time vaccine is manufactured until it is administered.

- Check expiration dates weekly. Rotate stock so that soon-to-expire vaccine is used first.
- Never use expired vaccines or diluents. Once expired, remove from the unit immediately.
- Have a calibrated thermometer with current Certificate of Traceability and Calibration in each storage unit. Keep calibration up to date.
- Check the minimum and maximum temperature on both the refrigerator and freezer at the start of each workday. Also, check the current temperature on both the refrigerator and freezer when you arrive and before you leave for the day. Documentation of min/max and twice daily temperatures is a requirement for VFC providers.
- Vaccines should only be transported when absolutely necessary such as during an emergency. The Michigan Department of Health & Human Services (MDHHS), the Centers for Disease Control and Prevention (CDC), and Merck do not recommend transport of varicella-containing vaccine. For detailed guidance on transport, see “[MDHHS Guidance on Vaccine Transport.](#)”
- For specific vaccine storage and handling information for COVID-19 vaccines see: www.cdc.gov/vaccines/covid-19/info-by-product/index.html.
- For further information on storage and handling of vaccines, refer to CDC’s “Vaccine Storage and Handling Toolkit” at: www.cdc.gov/vaccines/hcp/admin/storage/toolkit/index.html.