



VACCINE MANAGEMENT: Recommendations for Handling and Storage of Selected Biologicals

VACCINE	SHIPPING REQUIREMENTS	CONDITION ON ARRIVAL*	STORAGE REQUIREMENTS	SHELF LIFE	INSTRUCTIONS FOR USE	SHELF LIFE AFTER OPENING	SPECIAL INSTRUCTIONS
DTP: Diphtheria Toxoid, Tetanus Toxoid, Whole Cell Pertussis Vaccine DTaP/ACTHIB: Diphtheria Toxoid, Tetanus Toxoid, Acellular Pertussis Vaccine Combined with Haemophilus Conjugate Vaccine DTP: Diphtheria Toxoid, Tetanus Toxoid, Whole Cell Pertussis Vaccine DTP/HIB: Diphtheria Toxoid, Tetanus Toxoid, Whole Cell Pertussis Vaccine Combined with Haemophilus Conjugate Vaccine**	Should be shipped in insulated container. Maintain temperature at 2°-8°C (35°-46°F). Do not freeze or store vaccine in direct contact with refrigerant.	Should not have been frozen . Refrigerate on arrival.	Refrigerate immediately on arrival. Store at 2°-8°C (35°-46°F). Do not freeze .	Up to 18 months. Check date on vial or container.	Shake vial vigorously before withdrawing each dose.	Until outdated, if not contaminated.	Rotate stock so that the shortest dated material is used first.
HBIG: Hepatitis B Immune Globulin	Should be shipped in insulated container.	Should not have been frozen . Refrigerate on arrival.	Refrigerate immediately on arrival. Store at 2°-8°C (35°-46°F). Do not freeze .	Up to 1 year. Check date on vial or container.	Shake vial vigorously before withdrawing each dose.	Until outdated, if not contaminated.	Rotate stock so that the shortest dated material is used first.
Hepatitis Vaccine: Hepatitis A and Hepatitis B	Use insulated container. Must be shipped with refrigerant.***	Should not have been frozen . Refrigerate on arrival.	Refrigerate immediately on arrival. Store at 2°-8°C (35°-46°F). Do not freeze .	Up to 3 years. Check date on vial or container.	Shake vial vigorously before withdrawing each dose.	Until outdated, if not contaminated.	Rotate stock so that the shortest dated material is used first.
Hib or HBCV: Haemophilus Conjugate Vaccine	Should be shipped in insulated container to help prevent freezing.	Should not have been frozen . Refrigerate on arrival.	Refrigerate immediately on arrival. Store at 2°-8°C (35°-46°F). Do not freeze - this reduces potency.	Up to 2 years. Check date on vial or container.	Reconstitute before use. If the product requires reconstitution, record date of reconstitution on vial. Use only diluent supplied.	Multi-dose Vials - Stable until date of expiration, if stored at 2°-8°C (35°-46°F) when not in use. Single Dose Vials** - Discard unused reconstituted vials after 24 hours.	Rotate stock so that the shortest dated material is used first.

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**ACTHIB-Aventis Pasteur- Should be used within 24 hours of reconstitution if used alone or when reconstituted with Aventis Pasteur DTR. If Aventis Pasteur DTaP is used to reconstitute ACTHIB, the TriHibit vaccine must be used within 30 minutes. Only Aventis Pasteur DTR DTaP or the diluent shipped with the product, may be used to reconstitute the Aventis Pasteur ACTHIB product. Pedvax Hib- Merck- available in liquid one-dose vials good for 24 hours after reconstitution if kept at 2°-8°C (35°-46°F).

***Engerix by Glaxo Smithkline may be shipped without refrigerant for up to 96 hours as long as the vaccine does not exceed 86°F.

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Influenza Vaccine	Should be delivered in the shortest possible time. Should not be exposed to excessive temperatures.	Should <i>not</i> have been <i>frozen</i> . Refrigerate on arrival.	Refrigerate immediately on arrival. Store at 2° - 8°C (35° -46°F). Do not freeze.	Formulated for use within current influenza season.	Shake vial vigorously before withdrawing each dose.	Until outdated, if not contaminated.	Rotate stock so that the shortest dated material is used first.
IPV: Poliovirus Vaccine - Inactivated	Should be shipped in insulated container with refrigerant.	Should <i>not</i> have been <i>frozen</i> . Refrigerate on arrival.	Up to 18 months. Check date on package.	Up to 18 months. Check date on package.	Ampoule - 1 dose: Tap the ampoule to ensure that the solution is in the lower portion rather than in the neck of the ampoule. With sterile needle and syringe, withdraw the contents of the ampoule into syringe, holding the ampoule in such a way that the point of the needle is kept immersed throughout the withdrawal. Vial - 10 dose: Withdraw 0.5 cc of vaccine into separate sterile needle and syringe for each immunization	Ampoule: Discard if not used immediately. Vial: Until outdated if not contaminated.	Rotate stock so that the shortest dated vaccine is used first. The vaccine should be perfectly clear. Any vaccine showing particulate matter, turbidity, or change of color should be discarded.
Lyme Vaccine	Should be shipped in insulated containers with temperature monitors, via overnight courier. Vaccine can tolerate up to 4 days at room temperature (20° - 25°C; 68° -77°F). Coolant packs should be used to ship if the product is to be shipped for a long trip or if there are extremes of ambient temperature expected during the shipping time.	Should <i>not</i> have been <i>frozen</i> . Refrigerate upon arrival.	Refrigerate immediately upon arrival. Store at 2° - 8°C (35° -46°F). Do not freeze.	Up to 24 months. Check date on vial or container.	Shake well before withdrawal and use. Discard any vaccine remaining in a single dose vial.		Inject intramuscularly in the deltoid region. Do not inject intravenously, intradermally, or subcutaneously.

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Yakima Health District, May 2004

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VACCINE	SHIPPING REQUIREMENTS	CONDITION ON ARRIVAL*	STORAGE REQUIREMENTS	SHELF LIFE	INSTRUCTIONS FOR USE	SHELF LIFE AFTER OPENING	SPECIAL INSTRUCTIONS
Measles Virus Vaccine Mumps Virus Vaccine Rubella Virus Vaccine Measles/Mumps/Rubella- MMR Vaccine Measles/Rubella-MR Vaccine	Vaccine - Use insulated container. Must be shipped with refrigerant. Maintain at 10°C (50°F) or less. If shipped with dry ice, diluent must be shipped separately. Diluent - May be shipped with vaccine but do not freeze.	Should be below 10°C (50°F). If above this temperature, see instructions (*) below. Do not use warm vaccine. Refrigerate on arrival.	Vaccine may be stored separately from diluent. Store as follows: Vaccine - refrigerate immediately on arrival. Store at 2° - 8°C (35°-46°F). Protect from light at all times , since such exposure may inactivate the virus. Diluent may be stored at 15°-30°C (59°-86°F) room temperature. Do not Freeze. Special Note: Freeze dried (lyophilized) vaccines may be maintained at freezer temperatures.	Vaccine - Up to 2 years. Check date on container or vial. Diluent - Check date on container or vial.	Reconstitute just before using. Use only the diluent supplied to reconstitute the vaccine. Single Dose Vials - Inject diluent into the vial of lyophilized vaccine and agitate to ensure thorough mixing. Withdraw entire contents into syringe and inject total volume of vaccine subcutaneously. Multi-dose Vials - Withdraw all diluent from vial into syringe. Inject into vial of lyophilized vaccine and agitate to ensure thorough mixing. 10-Dose Vials - Withdraw 0.5cc of reconstituted vaccine into separate sterile needle and syringe for each immunization. Licensed for jet injector use. 50-Dose Vials - Use on jet injector only, with dosage set at 0.5cc.	After reconstitution, use immediately or store in a dark place at 2°-8°C (35°-46°F). Discard if not used within 8 hours.	Special Instructions: Rotate stock so that the shortest dated vaccine is used first. 10-Dose Vials - May be used for both jet injector and needle and syringe methods of immunization. 50-Dose Vials - For jet injector use. Should not be utilized via needle and syringe method of immunization. DISPOSAL NOTE: All materials used for administering live virus vaccines should be burned, boiled, or autoclaved prior to disposal.

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Meningococcal Polysaccharide Vaccine, Groups A, C, Y, W-135	Should be shipped in insulated containers with temperature monitors, via overnight courier. Powdered vaccine can tolerate up to 45°C (113°F) for 6-8 weeks. Coolant packs should be used to ship if the product is to ship for a long trip or if there are extremes of ambient temperature expected during the shipping time.	Should <i>not</i> have been frozen . Refrigerate upon arrival.	Refrigerate immediately upon arrival. Store at 2°-8°C (35°-46°F). Do not freeze . Powdered form can tolerate 12 weeks at 37°C (98.6°F) and 6 to 8 weeks at 45°C (113°F).	Expires within 18 months. Check date on vial or container.	Reconstitute gently. This is a white powder that yields a clear colorless liquid when reconstituted with 0.5 ml of sterile water.	Use single dose vials within 24 hours of reconstitution. Unused portions of multi-dose vials may be refrigerated at 2°-8°C (35°-46°F) and used up to 10 days after reconstitution.	Diluent to be used is sterile water for injection with 0.01% thimerosal. Reconstituted vaccine should be injected subcutaneously, or with a jet injector device only. Do not inject intradermally, intramuscularly, or intravenously.
Pneumococcal 7-valent Conjugate Vaccine	Should be shipped in insulated containers at 2°- 8°C (35°-46°F) with temperature monitors.	Should <i>not</i> have been frozen . Refrigerate upon arrival.	Refrigerate immediately upon arrival. Store at 2°- 8°C (35°-46°F). Do not freeze .	Up to 18 months. Check date on vial or container.	Vaccine should appear as a homogenous white suspension after vigorous shaking. The vaccine should be administered intramuscularly only.		This vaccine is a suspension containing adjuvant and, if after vigorous shaking, should not be used if the particles cannot be re-suspended.
Pneumococcal Polysaccharide Vaccine—Polyvalent	Should be shipped in insulated container with refrigerant. Do not freeze .	Should <i>not</i> have been frozen . Refrigerate on arrival.	Refrigerate immediately on arrival. Store at 2°- 8°C (35°-46°F). Do not freeze .	Up to 2 years. Check date on container or vial.	Vials — Shake vial vigorously before withdrawing each dose. Pre-filled Syringes — Follow manufacturer's directions.	Until outdated, if not contaminated.	Rotate stock so that the shortest dated vaccine is used first. Do not inject intravenously . Intradermal administration may cause severe local reactions and should be avoided.
Td Td—Adult: Tetanus-Diphtheria Toxoids DT—Pediatric: Diphtheria-Tetanus Toxoids	Should be shipped in insulated container. Maintain temperature at 2°-8°C (35°-46°F). Do not freeze or store vaccine in direct contact with refrigerant.	Should <i>not</i> have been frozen . Refrigerate on arrival.	Refrigerate immediately on arrival. Store at 2°- 8°C (35°-46°F). Do not freeze .	Up to 2 years. Check date on vial or container.	Shake vial vigorously before withdrawing each dose.	Until outdated, if not contaminated.	Rotate stock so that the shortest dated vaccine is used first.

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Varicella (Chickenpox) Vaccine	Ship with dry ice only. Should be delivered within 2 days.	Should be frozen. Vaccine should remain at -20°C (-5°F) until arrival at health care facility. Dry ice should still be present in the shipping container when vaccine is delivered.	Maintain in a continuously frozen state at -15°C (5°F) or colder. No freeze thaw cycles are allowed with this vaccine. Vaccine should only be stored in freezers or refrigerator/freezers with separate doors and compartments. Acceptable storage may be achieved in standard household freezers purchased in the last 10 years, and standard household refrigerator/freezers with a separate, sealed freezer compartment. In order to maintain this temperature it will be necessary in most refrigerator/freezer models to turn the temperature dial down to the coldest setting. This may result in the refrigerator compartment temperature being lowered as well. Careful monitoring of the refrigerator temperature to avoid freezing killed or inactivated vaccines will be necessary.	Up to 18 months. Check date on package and use the earliest expiration date first.	This product is a lyophilized (freeze dried) product and should only be reconstituted with the diluent provided with the vaccine. This vaccine must be used within 30 minutes of reconstitution or should be discarded.		If this vaccine is stored at a temperature warmer than -15°C, it will result in a loss of potency and a reduced shelf life. If a power outage or some other situation occurs that results in the vaccine storage temperature rising above the recommended storage, the health care provider should contact Merck, the manufacturer, at 1-800-9-827-4829 for a re-evaluation of the products potency before using the vaccine.

Adapted from:

Vaccine Management: Recommendations for Handling and Storage of Selected Biologicals, Department of Health and Human Services (DHHS), Centers for Disease Control and Prevention (CDC) January 2001

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