

Vaccine Management - Recommendation for Storage and Handling of Selected Biologicals

(These recommendations are not a substitute for the package insert included with each biologic.)

If you have any questions about the condition of the vaccine at the time of delivery, you should: Immediately place vaccine in recommended storage; and notify your responsible entity.

Vaccine Group	Shipping Requirements	Condition Upon Arrival	Storage Requirements	Shelf Life	Instructions for Use	Shelf Life After Opening	Special Instructions
COVID-19	For refrigerated products: must be shipped in insulated container. Maintain temperature at 36° to 46°F (2° to 8°C). Do not freeze or expose to freezing temperatures. For frozen products: Must be shipped in insulated container that maintains temperatures between -58° and +5°F (-50° to -15°C). For ultra-cold products: Must be shipped in insulated container that maintains temperatures between -130° and -76°F (-90° to -60°C).		Follow manufacturer's instructions for refrigeration, frozen storage, or ultra-cold storage. Moderna COVID-19 may be stored in the freezer (-58° and +5°F or -50° to -15°C) until expiry. Frozen vaccines may be thawed and stored at refrigerated temperatures 36° to 46°F (2° to 8°C) for up to 30 days. Do not re-freeze thawed. Pfizer COVID-19 vaccines in single-dose vials, multi-dose vials, or plastic pre-filled syringes should be stored ultra-cold between -130° and -76°F (-90° to -60°C) until expiry. Once removed from ultra-cold temperatures, the single-dose vials, multi-dose vials, or plastic pre-filled syringes may be stored at refrigerated temperatures for up to 10 weeks. Glass pre-filled syringes may be stored refrigerated between 36° and 46°F (2° to 8°C) until expiry. Do not store Pfizer COVID-19 vaccines at standard freezer temp[-58° and +5°F (-50° to -15°C)].	Check expiration date on vial or container. Do not use after expiration date shown on the label.	Shake the syringe or vial before administering the . Shake the multi-dose vial each time before withdrawing the vaccine. Administer intramuscularly.	Pre-Filled Syringes: The vaccine should be administered shortly after the needle is attached to the syringe. Administer the entire dose. Single-dose Vials: The vaccine should be administered shortly after withdrawal from the vial. Discard vial and any remaining vaccine after withdrawing one dose. Multi-Dose Vials: The vaccine should be administered shortly after withdrawal from the vial. Between uses, return the multi-dose vial to the recommended storage temperatures between 36° and 46°F (2° and 8°C). Discard any remaining vaccine 12 hours after first puncture.	Rotate stock so that the vaccine with the shortest expiration date is used first.
DTaP - Pediatric DTaP IPV Pediatric DTaP IPV-HIB Pediatric DTaP-HepB-IPV Pediatric Tdap ≥ 7 yrs	Must be shipped in insulated container. Maintain temperature at 36° to 46°F (2° to 8°C). Do not freeze or expose to freezing temperatures.	Refrigerate upon arrival. Do not freeze or expose to freezing temperatures.	Refrigerate immediately upon arrival. Store at 36° to 46°F (2° to 8°C). Do not freeze or expose to freezing temperatures.	Check expiration date on vial, container, or manufacturer-filled syringe. Do not use after expiration date shown on the label.	Just before use, shake the vial or syringe well until a uniform, white, cloudy suspension results. If particulate matter and/or discoloration exists, do not use. Administer intramuscularly.	Single-Dose Vials: The vaccine should be administered shortly after withdrawal from the vial. Pre-Filled Syringes: The vaccine should be administered shortly after the needle is attached to the syringe. **Pentacel: Reconstitute the lyophilized ActHIB component with the vial of DTaP-IPV component immediately before administration. Do not mix with any other vaccine or diluent. Before use, thoroughly but gently shake the vial of DTaP-IPV component, withdraw the entire liquid content and inject into the vial of the lyophilized ActHIB vaccine component. Gently swirl the vial now containing Pentacel until a cloudy, uniform, white to off-white (yellow tinge) suspension results. Do not use after expiration date shown on the label.	Rotate stock so that the vaccine with the shortest expiration date is used first.
Hepatitis A, Hepatitis B, and Hepatitis A-B	Must be shipped in insulated container. Maintain temperature at 36° to 46°F (2° to 8°C). Do not freeze or expose to freezing temperatures.	Refrigerate upon arrival. Do not freeze or expose to freezing temperatures.	Refrigerate immediately upon arrival. Store at 36° to 46°F (2° to 8°C). Do not freeze or expose to freezing temperatures.	Check expiration date on vial, container, or manufacturer-filled syringe. Do not use after expiration date shown on the label.	Shake well to obtain a uniform, white cloudy suspension before use. Thoroughly agitate to maintain suspension of the vaccine. Discard if the suspension does not appear homogeneous, if extraneous particulate matter remains, or if discolorations is observed. Administer intramuscularly.	Single-Dose Vials: The vaccine should be administered shortly after withdrawal from the vial. Pre-Filled Syringes: The vaccine should be administered shortly after the needle is attached to the syringe. Administer the entire dose.	Rotate stock so that the vaccine with the shortest expiration date is used first.
Hib Haemophilus influenzae type b Conjugate	Must be shipped in insulated container. Maintain temperature at 36° to 46°F (2° to 8°C). Do not freeze or expose to freezing temperatures.	Refrigerate upon arrival. Do not freeze or expose to freezing temperatures.	Refrigerate immediately upon arrival. Store at 36° to 46°F (2° to 8°C). Do not freeze or expose to freezing temperatures. ActHIB: Store lyophilized vaccine packaged with saline diluent at 36° to 46°F (2° to 8°C). Hibrix: Store lyophilized vaccine between 36° to 46°F (2° to 8°C). Protect vials from light. Hibrix Diluent: Store refrigerated between 36° to 46°F (2° to 8°C) or in a controlled room temperature between 68° and 77°F. Do not use if diluent has been frozen. PedvaxHIB: Store liquid vaccine at 36° to 46°F (2° to 8°C). Liquid PedvaxHIB is ready to use and does not require a diluent; it is a slightly opaque white suspension.	Check expiration date on vial, container, or manufacturer-filled syringe. Do not use after expiration date shown on the label.	Hiberix is to be reconstituted only with the accompanying saline diluent. Inject the entire volume of sterile diluent contained in the vial or syringe into the vial of lyophilized vaccine. Thorough agitation is advised to ensure complete reconstitution. The entire volume of reconstituted vaccine is then drawn back into the syringe. The vaccine will appear clear and colorless after reconstitution. Administer intramuscularly. PedvaxHIB: Shake well before withdrawal and use. Thorough agitation is necessary to maintain suspension of the vaccine. ActHIB should be used within 24 hours of reconstitution. Use only the diluent shipped with the product to reconstitute.	The vaccine should be administered shortly after withdrawal from the vial.	Rotate stock so that the vaccine with the shortest expiration date is used first.
HPV Human Papillomavirus	Must be shipped in insulated container. Maintain temperature at 36° to 46°F (2° to 8°C). Do not freeze or expose to freezing temperatures.	Refrigerate upon arrival. Do not freeze or expose to freezing temperatures.	Refrigerate immediately upon arrival. Store at 36° to 46°F (2° to 8°C). Do not freeze or expose to freezing temperatures.	Check expiration date on vial, container, or manufacturer-filled syringe. Do not use after expiration date shown on the label.	Shake well before use. Thorough agitation immediately before administration is necessary to maintain suspension of the vaccine. After thorough agitation, vaccine is a white, cloudy liquid. Parenteral drug products should be inspected visually for particulate matter and discoloration prior to administration. Do not use the product if particulates are present or if it appears discolored. Administer as soon as possible after being removed from refrigeration. Protect from light.	Use until expiration date is reached. Gardasil should be administered as soon as possible after being removed from refrigeration. Gardasil can be administered provided total (cumulative multiple excursion) time out of refrigeration (at temperatures between 8° and 25°C) does not exceed 72 hours.	Rotate stock so that the vaccine with the shortest expiration date is used first.
Influenza Inactivated or Recombinant	Must be shipped in insulated container. Maintain temperature at 36° to 46°F (2° to 8°C). Do not freeze or expose to freezing temperatures.	Refrigerate upon arrival. Do not freeze or expose to freezing temperatures.	Refrigerate immediately upon arrival. Store at 36° to 46°F (2° to 8°C). Do not freeze or expose to freezing temperatures.	Formulated for use during current influenza season. Check expiration date on container. Do not use after the expiration date shown on the label.	Shake the syringe or vial before administering the vaccine. Shake the multi-dose vial each time before withdrawing the vaccine. Administer intramuscularly.	Pre-Filled Syringes: The vaccine should be administered shortly after the needle is attached to the syringe. Administer the entire dose. Multi-Dose Vials: The vaccine should be administered shortly after withdrawal from the vial. Between uses, return the multi-dose vial to the recommended storage temperatures between 36° and 46°F (2° and 8°C). Do not freeze. Discard if the vaccine has been frozen.	Rotate stock so that the vaccine with the shortest expiration date is used first.
IPV Inactivated Polio	Must be shipped in insulated container. Maintain temperature at 36° to 46°F (2° to 8°C). Do not freeze or expose to freezing temperatures.	Refrigerate upon arrival. Do not freeze or expose to freezing temperatures.	Refrigerate immediately upon arrival. Store at 36° to 46°F (2° to 8°C). Do not freeze or expose to freezing temperatures. Protect from light.	Check expiration date on vial, container, or manufacturer-filled syringe. Do not use after expiration date shown on the label.	Shake vial vigorously before withdrawal and use. The vaccine is clear and colorless. Follow manufacturer's directions. Administer intramuscularly or subcutaneously.	The vaccine should be administered shortly after withdrawal from the vial. For multi-dose vials, unused portions of multi-dose vials should be refrigerated at 36° to 46°F (2° to 8°C) and used until expiration date is reached. Do not use if the vaccine is contaminated or otherwise compromised.	Rotate stock so that the vaccine with the shortest expiration date is used first.
LAIV Live Attenuated Influenza	Must be shipped in insulated container. Maintain temperature at 36° to 46°F (2° to 8°C). Do not freeze or expose to freezing temperatures.	Refrigerate upon arrival. Do not freeze or expose to freezing temperatures.	Refrigerate immediately upon arrival. Store at 36° to 46°F (2° to 8°C). Do not freeze or expose to freezing temperatures. Keep sprayers in the outer carton to protect from light.	Formulated for use during current influenza season. Check expiration date on container. Do not use after the expiration date shown on the label.	LAIV is a colorless to pale yellow liquid and is clear to slightly cloudy. For intranasal administration only. Do not inject. Do not use a needle. After removal of the sprayer from the refrigerator, remove the rubber tip protector. Follow manufacturer's instructions to deliver 1/2 dose into one nostril. Pinch and remove the dose-divider clip and deliver the remainder of the dose as rapidly as possible into the other nostril.	The vaccine should be administered shortly after removal from the refrigerator.	Rotate stock so that the vaccine with the shortest expiration date is used first. NOTE: Following administration, dispose of the sprayer and all vaccine components according to the standard procedures for medical waste.
MCV Meningococcal Conjugate MCV4 Serogroups A, C, Y, W-135 MCV5 Serogroups A, B, C, Y, W-135	Must be shipped in insulated container. Maintain temperature at 36° to 46°F (2° to 8°C). Do not freeze or expose to freezing temperatures.	Refrigerate upon arrival. Do not freeze or expose to freezing temperatures.	Refrigerate immediately upon arrival. Store at 36° to 46°F (2° to 8°C). Do not freeze or expose to freezing temperatures. Protect from light.	Check expiration date on vial or container. Do not use after expiration date shown on the label.	Follow manufacturer's instructions. Special Instructions for Vaccines That Require Reconstitution: For meningococcal vaccines that require reconstitution (Menveo, Penbraya), do not use if the reconstituted vaccine cannot be resuspended without thorough agitation. Only reconstitute diluents for the vaccine (Menveo, Penbraya) which contain antigen, with the corresponding lyophilized vaccine provided by the manufacturer. Never use stock vials of normal saline to reconstitute these vaccines. NOTE: MenQuadFl and Menveo Single-Dose presentations Do not require reconstitution.	The vaccine should be administered shortly after withdrawal from the vial.	Vaccine should be injected by the intramuscular route only. Rotate stock so that the vaccine with the shortest expiration date is used first.
Meningococcal B - Meningococcal Serogroup B	Must be shipped in insulated container. Maintain temperature at 36° to 46°F (2° to 8°C). Do not freeze or expose to freezing temperatures.	Refrigerate upon arrival. Do not freeze or expose to freezing temperatures.	Refrigerate immediately upon arrival. Store at 36° to 46°F (2° to 8°C). Do not freeze or expose to freezing temperatures.	Check expiration date on vial or pre-filled syringe. Do not use after expiration date shown on the label.	Shake syringe before use to form a homogenous suspension. Do not use if it cannot be resuspended. Inspect for particulate matter and discoloration prior to administration; do not use if any is found. Administer intramuscularly.	The vaccine should be administered shortly after removal from the refrigerator.	Vaccine should be injected by the intramuscular route only. Rotate stock so that the vaccine with the shortest expiration date is used first.
MMR Measles/Mumps/Rubella	Must be shipped in insulated container. Depending on the vaccine, maintain temperatures at 36° to 46°F (2° to 8°C) or between -58° and +46°F (-50° to 8°C). Do not use dry ice as it may subject vaccine to temperatures colder than -58°F (-50°C). Diluent is shipped with vaccine but not frozen.	Depending on the vaccine, maintain temperatures at 36° to 46°F (2° to 8°C) or between -58° and +46°F (-50° to 8°C).	Depending on the vaccine, may be stored in a refrigerator or freezer. Diluent may be stored at room temperature or in a refrigerator. Do not freeze diluent. NOTE: The lyophilized (freeze dried) component MMR II vaccine may be maintained at freezer temperatures. The lyophilized component of Priorix must be maintained at refrigerator temperatures.	Check expiration date on vial, container, or manufacturer-filled syringe. Do not use after expiration date shown on the label.	Reconstitute just before administering. Use only the diluent supplied to reconstitute the vaccine. Inject diluent into the vial of lyophilized vaccine and agitate to ensure thorough mixing. Withdraw entire contents into syringe and inject total volume. Do not use if the lyophilized vaccine cannot be dissolved. Administer MMR II intramuscularly or subcutaneously. Administer Priorix subcutaneously.	After reconstitution, use immediately or store between 36° and 46°F (2° and 8°C), protect from light, and discard if not used within 8 hours.	Rotate stock so that the vaccine with the shortest expiration date is used first. NOTE: All materials used for administering live virus vaccines should be disposed of according to the standard procedures for medical waste.
MMRV Measles/Mumps/Rubella/Varicella Varicella (Chickenpox)	Vaccine: Must be shipped in insulated container that maintains temperatures between -58° and +5°F (-50° to -15°C). Do not use dry ice as it may subject vaccine to temperatures colder than -58°F (-50°C). Diluent: Must be shipped with vaccine. Do not store diluent in the freezer.	Vaccine must be stored between -58° and +5°F (-50° to -15°C).	Vaccine: Store in freezer immediately upon arrival. Maintain vaccine between -58° and +5°F (-50° to -15°C). Protect from light at all times. NOTE: ProQuad and Varivax may be stored at refrigerator temperatures (36°F to 46°F; 2°F to 8°C) for up to 72 continuous hours prior to reconstitution. Discard if not used within 72 hours. Diluent: May be refrigerated or stored at room temperature of 68° and 77°F (20° to 25°C). Do not freeze or expose to freezing temperatures.	Check expiration date on vial or container. Do not use after expiration date shown on the label.	Reconstitute just before administering. Use only the diluent supplied to reconstitute the vaccine. Follow manufacturer's directions. Administer intramuscularly or subcutaneously.	If not used immediately, reconstituted vaccine may be stored at room temperature, protected from light, for up to 30 minutes. Discard reconstituted vaccine if not used within 30 minutes.	If this vaccine is exposed to temperatures warmer than 5°F (-15°C) for prolonged periods, a loss of potency and a reduced shelf life may result. If a power outage or other situation occurs that results in vaccine storage temperature rising above the recommended temperature, clinic staff must contact their responsible entity before using the vaccine. Rotate stock so that the vaccine with the shortest expiration date is used first. NOTE: All materials used for administering live virus vaccines should be disposed of according to the standard procedures for medical waste.
Mpox	Must be shipped in insulated container that maintains temperatures between -58° and +5°F (-50° to -15°C).	JYNNEOS may be frozen or refrigerated upon arrival. Once thawed, JYNNEOS may be stored in the refrigerator at 36° to 46°F (2° to 8°C) for 4 weeks. Do not re-freeze a vial once thawed. Do not re-freeze a vial once thawed.	Keep frozen at -13° to +5°F (-25° to -15°C) until expiration. Unpunctured vials of JYNNEOS may be thawed and stored in the refrigerator at 36° to 46°F (2° to 8°C) for 4 weeks. Do not re-freeze a vial once thawed. Store in original packaging to protect from light.	If stored frozen at -13° to +5°F (-25° to -15°C), check expiration date on vial or container. Do not use after expiration date shown on the label. Once thawed, unpunctured vials of JYNNEOS may be kept at 36° to 46°F (2° to 8°C) for 4 weeks. Discard thawed vaccine after four weeks.	Frozen vaccine takes approximately 10 minutes to thaw and must be thawed before using. When thawed, JYNNEOS is a milky, light yellow to pale white colored suspension. Inspect for particulate matter or discoloration and if present, do not administer. Swirl the single-dose vial for at least 30 seconds before withdrawing the vaccine. Administer subcutaneously.	Allow the vaccine to thaw and reach room temperature before use. Unpunctured vials may be held at room temperature for up to 6 cumulative hours.	Rotate stock so that the vaccine with the shortest expiration date is used first. For subcutaneous injection only.
Pneumococcal Conjugate (15- and 20-Valent)	Must be shipped in insulated container. Maintain temperature at 36° to 46°F (2° to 8°C). Do not freeze or expose to freezing temperatures.	Refrigerate upon arrival. Do not freeze or expose to freezing temperatures.	Refrigerate immediately upon arrival. Store at 36° to 46°F (2° to 8°C). Do not freeze or expose to freezing temperatures.	Check expiration date on vial or pre-filled syringe. Do not use after expiration date shown on the label.	Vaccine should appear as a homogenous white suspension after vigorous shaking. Administer intramuscularly.	The vaccine should be administered shortly after removal from the refrigerator.	This vaccine is a suspension containing an adjuvant and should not be used if the particles cannot be resuspended after vigorous shaking. Do not use if particulate matter or discoloration is found. Rotate stock so that the vaccine with the shortest expiration date is used first. NOTE: The 13-valent pneumococcal conjugate vaccine (PCV13) is authorized for use but unavailable for ordering as of 2023.
PPSV23 Pneumococcal Polysaccharide (Polyvalent)	Must be shipped in insulated container. Maintain temperature at 36° to 46°F (2° to 8°C). Do not freeze or expose to freezing temperatures.	Refrigerate upon arrival. Do not freeze or expose to freezing temperatures.	Refrigerate immediately upon arrival. Store at 36° to 46°F (2° to 8°C). Do not freeze or expose to freezing temperatures.	Check expiration date on vial or pre-filled syringe. Do not use after expiration date shown on the label.	Follow manufacturer's instructions. Administer either intramuscularly or subcutaneously.	The vaccine should be administered shortly after removal from the refrigerator.	Rotate stock so that the vaccine with the shortest expiration date is used first.
Rotavirus	Must be shipped in insulated container. Maintain temperature at 36° to 46°F (2° to 8°C). Do not freeze or expose to freezing temperatures.	Refrigerate upon arrival. Do not freeze or expose to freezing temperatures.	Refrigerate immediately upon arrival. Store at 36° to 46°F (2° to 8°C). Do not freeze or expose to freezing temperatures. Do not freeze or expose to light.	Check expiration date on tube or container. Do not use after expiration date shown on the label.	FOR ORAL USE ONLY. Do not inject. Administer dose by gently squeezing liquid into infant's mouth toward the inner cheek until dosing tube is empty. Rotarix: The oral dosing applicator only presentation does NOT require reconstitution or dilution before use. Each dose of 1.5 mL is administered orally. Rotateq: Ready-to-use liquid dose that is a pale, yellow clear liquid that may have a pink tint.	The vaccine should be administered shortly after removal from the refrigerator.	FOR ORAL USE ONLY. Do not inject. Rotate stock so that the vaccine with the shortest expiration date is used first.
RSV Respiratory Syncytial Virus	Must be shipped in insulated container. Maintain temperature at 36° to 46°F (2° to 8°C). Do not freeze or expose to freezing temperatures.	Refrigerate upon arrival. Do not freeze or expose to freezing temperatures.	Refrigerate immediately upon arrival. Store at 36° to 46°F (2° to 8°C). Do not freeze or expose to freezing temperatures. Do not freeze or expose to light.	Check expiration date on vial or container. Do not use after expiration date shown on the label.	Abrysvo: Pfizer's vaccine is supplied in a kit with three components, a vial of lyophilized antigen component (a sterile white powder) a pre-filled syringe containing sterile water diluent component a vial adapter. Follow manufacturer's directions to reconstitute the lyophilized antigen component with the sterile water diluent component using the provided vial adapter. Beyfortus: Inspect the pre-filled syringe for particulate matter or discoloration and if present, do not administer. Beyfortus is a clear to opalescent, colorless to yellow solution.	Abrysvo: Administer the vaccine immediately after reconstitution; you should prepare the vaccine only when ready for use. If you Do not immediately administer the vaccine, store reconstituted vaccine only at room temperature (up to 77°F or 25°C) for up to 4 hours. Do not refrigerate after reconstitution. Discard if not used within 4 hours. Beyfortus: Beyfortus is supplied as a pre-filled syringe and should be administered after removal from refrigeration. Beyfortus may be kept at room temperature of 68° to 77°F (20° to 25°C) for a maximum of 8 hours. After removal from refrigeration, discard if not used within 8 hours.	Rotate stock so that the vaccine with the shortest expiration date is used first. Follow CDC recommendations on timing of seasonal RSV immunizations.
Td - ≥ 7 yrs Tetanus and Diphtheria Toxoids	Must be shipped in insulated container. Maintain temperature at 36° to 46°F (2° to 8°C). Do not freeze or expose to freezing temperatures.	Refrigerate upon arrival. Do not freeze or expose to freezing temperatures.	Refrigerate immediately upon arrival. Store at 36° to 46°F (2° to 8°C). Do not freeze or expose to freezing temperatures.	Check expiration date on vial, container, or manufacturer-filled syringe. Do not use after expiration date shown on the label.	Shake well to obtain a uniform, white cloudy suspension before withdrawal and use. Administer intramuscularly.	Single-Dose Vials: The vaccine should be administered shortly after withdrawal from the vial.	Pre-Filled Syringes: The vaccine should be administered shortly after the needle is attached to the syringe. Rotate stock so that the vaccine with the shortest expiration date is used first.
Zoster	Must be shipped in insulated container. Maintain temperature at 36° to 46°F (2° to 8°C). Do not freeze or expose to freezing temperatures.	Refrigerate upon arrival. Do not freeze or expose to freezing temperatures.	Refrigerate immediately upon arrival. Store both the adjuvant suspension component and the lyophilized gE antigen component at 36° to 46°F (2° to 8°C). Do not freeze or expose to freezing temperatures. Discard if either the adjuvant or antigen components have been frozen.	Check expiration date on vial or container. Do not use after expiration date shown on the label.	SHINGRIX is supplied as two components: A single-dose vial of lyophilized gE antigen component (powder) and a single-dose vial of adjuvant suspension component (liquid). Reconstitute the lyophilized gE antigen component with the adjuvant component. Shake gently to mix until the powder is completely dissolved. When reconstituted, it should be an opalescent, colorless to pale brownish liquid. Inspect for particulate matter or discoloration and if present, Do not administer. For intramuscular injection only.	Administer immediately or store refrigerated between 36° and 46°F (2° and 8°C) for up to 6 hours prior to use. Discard reconstituted vaccine if not used within 6 hours.	Rotate stock so that the vaccine with the shortest expiration date is used first.