

VACCINE PREPARATION AND ADMINISTRATION (Post in Vaccine Prep Area)

| VACCINES AND OTHER IMMUNIZING AGENTS | INSTRUCTIONS FOR RECONSTITUTION OR USE ¹ | SHELF LIFE AFTER RECONSTITUTION, THAWING OR OPENING ^{2,3} |
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| <p>DTaP, DTaP-HepB-IPV (Pediarix[®]), DTaP-IPV-Hib-HepB (Vaxelis[®]), DTaP-IPV (Quadracel[®], Kinrix[®]), Td, Tdap, HepA, HepB (Engerix-B[®], Recombivax HB[®], Heplisav-B[®], PreHevbrio[®]), HepA-HepB (Twinrix[®]), Hib (PedvaxHIB[®]), 9vHPV, PCV13, PCV15, PCV20, PPSV23, aIIIV4 (Fluad[®]), HD-IIV4 (Fluzone[®] High-Dose), IIV4, ccIIIV4 (Flucelvax[®]), RIV4 (Flublok[®]), MenB (Trumenba[®], Bexsero[®]), MenACWY-D (MenQuadfi[®])</p> | <p>Resuspension guidance varies per product (i.e., how vigorously you must shake to obtain a uniform suspension). See package insert for guidance. MenB (Trumenba), and PCV20 syringes are recommended to lay flat on the shelf to minimize resuspension time.</p> <p>For single-dose vials, withdraw and administer intramuscularly (IM) using a new needle and syringe. Discard vial after use.</p> <p>When using a prefilled syringe, attach a new needle to the prefilled syringe by twisting it in a clockwise direction until the needle fits securely on the syringe.</p> <p>ADMINISTER INTRAMUSCULAR (IM). PPSV23 Can Be Administered IM or Subcutaneous (Subcut).</p> | <ul style="list-style-type: none"> • Administer immediately. • Protect from light: 9vHPV, aIIIV4, IIV4, ccIIIV4, RIV4, MenB (Bexsero), Pneumococcal (PCV15, PCV20) HepB (Recombivax HB, PreHevbrio), and DTaP-IPV-Hib-HepB (Vaxelis). • Return multi-dose vial (MDV) to recommended storage conditions between uses⁴. Use MDV until expiration date, unless contaminated or otherwise stated in the manufacturer’s product information (e.g., some flu vaccines). • Do not freeze⁵. |
| <p>DTaP-IPV/Hib (Pentacel[®]) Hib (ActHIB[®], Hiberix[®])</p> | <p>RECONSTITUTE JUST BEFORE USING.</p> <p>Use only the diluent that comes with the vaccine. Diluents for these vaccines are not interchangeable.</p> <p>For Pentacel, gently shake the DTaP-IPV vial, withdraw entire contents, and inject into lyophilized ActHIB vial, then gently swirl.</p> <p>For ActHIB, withdraw saline diluent and inject into the vial of lyophilized ActHIB vaccine; agitate the reconstituted vaccine.</p> <p>Hiberix is supplied in two presentations (vial and vial, and vial and prefilled syringe) For both presentations, reconstitute the lyophilized antigen component with the accompanying sterile saline diluent. Once reconstituted shake the vial well to mix thoroughly.</p> <p>Withdraw the entire contents and administer IM.</p> | <ul style="list-style-type: none"> • Administer immediately. • Discard Pentacel if not used within 30 minutes after reconstitution. • Discard ActHIB and Hiberix after reconstitution if not used within 24 hours. If either vaccine is stored after reconstitution, store at recommended storage conditions and reagitate prior to administration⁴. • Protect Hiberix from light. • Do not freeze⁵. |
| <p>Inactivated Poliovirus Vaccine (IPV)</p> | <p>CAN BE ADMINISTERED IM OR SUBCUT.</p> | <ul style="list-style-type: none"> • Administer immediately. • Use MDV until expiration date, unless contaminated. Return MDV to recommended storage conditions between uses⁴. • Protect from light. • Do not freeze⁵. |

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| <p>MenACWY-CRM (Menveo®)</p> | <p>Menveo is supplied in two presentations:</p> <p>Menveo Two-Vial Presentation (requires reconstitution): Use only the diluent that comes with the vaccine. Draw up MenCWY liquid (diluent); add to MenA vial; invert; shake well¹. Withdraw entire contents and administer the total volume of vaccine.</p> <p>Menveo One-Vial Presentation (no reconstitution needed).</p> <p>BOTH PRESENTATIONS ARE ADMINISTERED IM.</p> | <ul style="list-style-type: none"> • Administer immediately. • Discard reconstituted vaccine (two-vial presentation) if not used within 8 hours. If Menveo is stored after reconstitution, store at recommended storage conditions and reagentate prior to administration⁴. • Protect from light. • Do not freeze⁵. |
| <p>MenABCWY (Penbraya™)</p> | <p>RECONSTITUTE JUST BEFORE USING.</p> <p>Store the carton horizontally to minimize resuspension time of MenB component.</p> <p>Use only the prefilled syringe (containing the MenB component), vial adapter, and vial of lyophilized MenACWY component that is provided by the manufacturer in the kit. Follow the directions in the package insert for reconstitution.</p> <p>ADMINISTER IM.</p> | <ul style="list-style-type: none"> • Administer immediately. • May be stored between 2°C to 30°C (36°F to 86°F) for 4 hours after reconstitution. Discard if not used within 4 hours. • Do not freeze⁵. |
| <p>Rotavirus Vaccines (RV): For Oral Use Only, Do not use a needle:</p> <p>RV1 (Rotarix®) RV5 (RotaTeq®)</p> | <p>RV1 (Rotarix) is supplied in two presentations, a vial and oral dosing applicator presentation and an oral applicator only presentation:</p> <p>Vial and Oral Dosing Applicator Presentation (requires reconstitution): The vial contains the lyophilized vaccine component, and the oral dosing applicator contains the diluent. Use only the applicator, transfer adaptor, and diluent supplied with the vaccine.</p> <p>Oral Dosing Applicator Only Presentation (no reconstitution needed).</p> <p>RV5: No reconstitution needed.</p> <p>All products and presentations are administered orally.</p> | <ul style="list-style-type: none"> • Administer immediately. • Discard RV1 after reconstitution if not used within 24 hours. If stored after reconstitution, store at recommended storage conditions and reagentate prior to administration⁴. • RV vaccine should be discarded in approved biological waste containers according to local regulations. • Protect from light. • Do not freeze⁵. |
| <p>Recombinant Zoster Vaccine (RZV, Shingrix®)</p> | <p>RECONSTITUTE JUST BEFORE USING. Use only the diluent that comes with the vaccine. Inject the entire volume of diluent into the vial of lyophilized vaccine. Gently shake the vial to mix thoroughly. Do not shake vigorously.</p> <p>After reconstitution, the solution may contain up to 0.75mL of liquid. Only withdraw the recommended dose of 0.5mL.</p> <p>ADMINISTER IM.</p> | <ul style="list-style-type: none"> • Administer immediately. • Discard RZV if not used within 6 hours after reconstitution. If RZV is stored after reconstitution, store at recommended storage conditions⁴. • Do not freeze⁵. • Protect from light. |

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| <p>Measles, Mumps, Rubella (M-M-R® II-Merck, MMR (Priorix®)-GSK)</p> <p>Measles, Mumps, Rubella, Varicella (MMRV, ProQuad®)</p> <p>Varicella (Var)</p> | <p>RECONSTITUTE JUST BEFORE USING. Use only the diluent that comes with the vaccine. For M-M-R II, MMRV, and Varicella, the sterile diluent is provided in either a vial or prefilled syringe. For MMR (Priorix) the sterile diluent is provided in a prefilled syringe. Inject the entire volume of diluent into the vial of lyophilized vaccine. Shake vial well to mix thoroughly¹. Withdraw entire contents and administer the total volume of vaccine.</p> <p>M-M-R II (Merck), MMRV, and Varicella: CAN BE ADMINISTERED IM OR SUBCUT.</p> <p>Priorix (GSK): ADMINISTER SUBCUT ONLY.</p> | <ul style="list-style-type: none"> • Administer immediately. • Discard MMR and Priorix if not used within 8 hours after reconstitution. • Discard Varicella, and MMRV if not used within 30 minutes after reconstitution. • If these vaccines are stored after reconstitution, store at recommended storage conditions⁴. • Protect from light. • Do not freeze reconstituted vaccine⁵. |
| <p>Respiratory Syncytial Virus (RSV)</p> <p>Abrysvo™ (Pfizer)</p> <p>Arexvy (GSK)</p> | <p>RECONSTITUTE JUST BEFORE USING. Use only the diluent that comes with the vaccine.</p> <p>Abrysvo is supplied in a kit that includes a vial of lyophilized antigen component (a sterile white powder), a prefilled syringe containing sterile water diluent component, and a vial adapter. Reconstitute the lyophilized antigen component with the accompanying sterile water diluent component using the vial adaptor. For specific instructions refer to the package insert.</p> <p>Arexvy is supplied in 2 vials that must be combined prior to administration. Reconstitute the lyophilized antigen component (sterile white powder) with the accompanying adjuvant suspension component (liquid). Gently swirl. Do not shake vigorously. After reconstitution, withdraw 0.5mL and administer IM.</p> <p>ADMINISTER IM.</p> | <ul style="list-style-type: none"> • Administer immediately. • Protect Arexvy from light. • Abrysvo: after reconstitution, may only store at room temp for 4 hours; discard after 4 hours. Do not store reconstituted vaccine under refrigerated conditions. • Arexvy: after reconstitution, may store in refrigerator or at room temp for 4 hours; discard after 4 hours. • Do not freeze⁵. |
| <p>Live Attenuated Influenza Vaccine Quadrivalent (LAIV4, FluMist®)</p> | <p>Remove rubber tip protector. With the patient sitting upright, place the tip just inside the nostril. Depress the plunger rapidly until the dose-divider clip prevents you from going further. Pinch and remove the dose-divider clip and place the tip inside the other nostril. Depress the plunger rapidly to deliver the remaining vaccine for a total of 0.2mL (0.1mL per nostril). Active inhalation (i.e., sniffing) is not required by the patient during administration.</p> <p>ADMINISTER INTRANASAL (NAS).</p> | <ul style="list-style-type: none"> • Administer immediately. • Do not freeze⁵. • Protect from light. |

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| <p>COVID-19 (Novavax, 12 Years and Older): Blue Cap and Blue Label</p> | <p>Gently swirl the multi-dose vial before each dose withdrawal, Do not shake, record the date and time of the first puncture on the vial label, each multi-dose vial contains 5 doses of 0.5mL each, do not pool excess vaccine from multiple vials.</p> <p>ADMINISTER IM.</p> | <ul style="list-style-type: none"> • Administer Immediately. • After the first needle puncture, hold the vial between 2°C to 25°C (36°F to 77°F). • Discard vial 12 hours after the first puncture. • Protect from light. • Do Not Freeze⁵. |
| <p>COVID-19 (Pfizer-BioNTech, 6 Months Through 4 Years Formulation): Yellow Cap and Yellow Label</p> | <p>If multiple-dose vials (MDV) are frozen, thaw in the refrigerator between 2°C to 8°C (36°F to 46°F) for 2 hours or at room temperature up to 25°C (77°F) for 30 minutes.</p> <p>Prior to use, mix by inverting thawed vial gently 10 times. Never shake the vials or vaccine.</p> <p>Dilute by adding 1.1mL of sterile 0.9% Sodium Chloride Injection, USP diluent into the vaccine vial. Record the date and time of dilution on the vial label. After dilution, multiple-dose vials contain 3 doses of 0.3mL each⁶.</p> <p>If the amount of vaccine in the vial cannot provide a full dose of 0.3mL, discard the vial and any excess volume. Do not pool excess vaccine from multiple vials.</p> <p>ADMINISTER IM.</p> | <ul style="list-style-type: none"> • Once vials are thawed, they should not be refrozen. • After dilution, MDV should be stored between 2°C to 25°C (36°F to 77°F). • MDV should be discarded 12 hours after dilution. • Protect from light. |
| <p>COVID-19 (Pfizer-BioNTech, 5 Years Through 11 Years Formulation): Blue Cap and Blue Label</p> | <p>If vials are frozen, thaw in the refrigerator between 2°C to 8°C (36°F to 46°F) for 2 hours or at room temperature up to 25°C (77°F) for 30 minutes.</p> <p>Do not dilute, withdraw a single 0.3mL dose, discard vial and any excess volume.</p> <p>ADMINISTER IM.</p> | <ul style="list-style-type: none"> • Once vials are thawed, they should not be refrozen. • Administer Immediately. • Protect from light. |

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| <p>COVID-19 (COMIRNATY[®], 12 Years and Older)</p> | <p>Single Dose Glass Prefilled Syringes: Do not shake, remove tip cap by slowly turning the cap counterclockwise while holding the Luer lock and attach a new needle.</p> <p>Single Dose Plastic Prefilled Syringes: If syringes are frozen, thaw in the carton in the refrigerator (preferably) between 2°C to 8°C (36°F to 46°F) for 2 hours or at room temperature up to 25°C (77°F) for 60 minutes. If individual frozen plastic prefilled syringes are thawed at room temperature outside of the carton, they can be kept at room temperature and must be used within 4 hours of thawing. Do not shake, remove tip cap, and attach a new needle.</p> <p>Single Dose Vials: If vials are frozen, thaw in the refrigerator between 2°C to 8°C (36°F to 46°F) for 2 hours or at room temperature up to 25°C (77°F) for 30 minutes, prior to use, mix by inverting vial gently 10 times, do not shake, withdraw a single 0.3mL dose using a new needle and syringe, discard vial and any excess volume.</p> <p>ADMINISTER IM.</p> | <ul style="list-style-type: none"> • Once plastic prefilled syringes or vials are thawed, they should not be refrozen. • The total time out of refrigeration 2°C to 8°C (36°F to 46°F) must not exceed 12 hours. • After removing the tip cap and attaching an appropriate needle, the glass and plastic prefilled syringes should be used immediately. If it cannot be used immediately, it must be used within 4 hours. • Protect from light. |
| <p>COVID-19 (Moderna, 6 Months Through 11 Years): Dark Blue Cap and Green Label</p> | <p>If vials are frozen, thaw in the refrigerator between 2°C to 8°C (36°F to 46°F) for 45 minutes. Let each vial stand at room temperature for 15 minutes before administering. Alternatively, thaw between 15°C to 25°C (59°F to 77°F) for 15 minutes.</p> <p>Swirl vial gently after thawing, do not shake, do not dilute. Withdraw a single 0.25mL dose using a new needle and syringe. Discard the vial and excess volume after extracting a single dose.</p> <p>ADMINISTER IM.</p> | <ul style="list-style-type: none"> • Once vials are thawed, they should not be refrozen. • Administer Immediately. • Total storage at 8°C to 25°C (46°F to 77°F) must not exceed 24 hours. • Protect from light. |

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| <p>COVID-19 (SPIKEVAX®, 12 Years and Older)</p> | <p>Thaw each vial or pre-filled syringe before use. Thaw between 2°C to 8°C (36°F to 46°F) for 45 minutes (single dose vial) or one hour (pre-filled syringe). Let each vial or syringe stand at room temperature for 15 minutes before administering. Alternatively, thaw between 15°C to 25°C (59°F and 77°F) for 15 minutes (single dose vial) or 45 minutes (pre-filled syringe).</p> <p>Single Dose Vial: swirl vial gently after thawing, do not shake, do not dilute, discard after single dose.</p> <p>Single Dose Pre-Filled Syringe: do not shake, do not dilute, with tip cap upright, remove tip cap by twisting counterclockwise until tip cap releases, remove tip cap in a slow steady motion, attach the needle by twisting in a clockwise direction until the needle fits securely on the syringe, discard syringe after use.</p> <p>ADMINISTER IM.</p> | <ul style="list-style-type: none"> • Once vials or pre-filled syringes are thawed, they should not be refrozen. • Administer Immediately. • Protect from light. |
| <p>Nirsevimab (Beyfortus™ – RSV)</p> | <p>Nirsevimab is available in a 50 mg (purple plunger) and a 100 mg (blue plunger) pre-filled syringe. Check the labels on the carton and pre-filled syringe to ensure the correct 50 mg or 100 mg product is being used.</p> <p>Unscrew the syringe cap by twisting it counterclockwise, attach a Luer lock needle to the pre-filled syringe by gently twisting the needle clockwise onto the pre-filled syringe until slight resistance is felt.</p> <p>ADMINISTER IM.</p> | <ul style="list-style-type: none"> • Administer Immediately. • Protect from light. • After removal from the refrigerator, Nirsevimab must be used within 8 hours or discarded. • Do Not Freeze⁵. |

PLEASE NOTE: These recommendations are not a substitute for the manufacturer’s package insert included with each biologic. This reference is for preparation and administration informational purposes only.

¹Visually inspect for particulate matter and discoloration prior to administration. Do not use if particulate matter and/or discoloration is found.

²Once vaccine is drawn into a syringe or the syringe is activated, the vaccine **MUST** be used within the time indicated in the [package insert](#). If this information is not found in the package insert, the provider will need to contact the manufacturer for vaccine viability. **If vaccine is not used within the manufacturer’s timeline it must be discarded and Vaccines for Children (VFC) providers must document this on the [wasted log](#).**

³For more information on preparation and administration of vaccines and other immunizing agents, refer to the manufacturer’s package insert or Emergency Use Authorization (EUA) fact sheet (e.g., some COVID-19 vaccines).

⁴Store vaccines at recommended storage conditions. Please refer to MDHHS’s [“Vaccine Storage and Handling Table”](#) or the manufacturer’s package insert or EUA fact sheet (e.g., some COVID-19 vaccines) for storage parameters.

⁵Discard if the vaccine has been frozen.

⁶Diluent: sterile 0.9% Sodium Chloride Injection, USP. DO NOT use bacteriostatic 0.9% Sodium Chloride Injection or any other diluent. Diluent is provided for VFC orders. For non-VFC orders, vaccination providers need to obtain their own diluent.