Staff can easily become confused about vaccines within the storage unit because there are so many brands and formulations available. Labeling the area where vaccines are stored can help staff quickly locate and choose the correct vaccine—perhaps preventing a vaccine administration error. Depending on how vaccines are organized within the storage unit, labels can be placed on containers or bins or directly attached to shelves where vaccines are placed. Other helpful strategies to prevent vaccine administration errors include color-coding labels (e.g., one color for pediatric and another for adult vaccines) and providing additional information such as age indications or other information unique to the vaccine.

In addition, some vaccines must be reconstituted before administration. These vaccines have two components—a lyophilized vaccine and a diluent that must be mixed together. The lyophilized vaccine should only be reconstituted or mixed using the diluent supplied by the manufacturer. Consider posting reminders or labeling vaccines to remind staff to reconstitute certain vaccines prior to administration.

The following labels are examples that may be used to help organize vaccines. Labels are based on recommendations from the Advisory Committee on Immunization Practices (ACIP) and may include indications different from those of the Food and Drug Administration. The Centers for Disease Control and Prevention (CDC) also recommends vaccines be stored in the original packaging to protect the contents from light, to help maintain the recommended temperature range, and to help prevent administration errors.

Note: Some vaccine preparations are being transitioned from vials and prefilled syringes that contain latex (natural rubber) to vials and prefilled syringes that are not made with natural rubber latex. Read the package insert that accompanies the product to check for the presence of natural rubber or latex.
DENGVAXIA
(Live Dengue Vaccine)

- Lyophilized Powder Vaccine Antigen Vial
- Saline Diluent Vial

Ages: 9 years through 16 years (with laboratory-confirmed previous dengue infection and living in dengue-endemic areas)

Dosage: 0.5 mL each, 6 months apart (at 0, 6, and 12)

Route: Subcutaneous (SUBCUT) injection

Protect From Light
Do Not Freeze
Reconstitute ONLY with 0.6 mL of manufacturer-supplied 0.9% saline diluent
Withdraw 0.5 mL for administration
After reconstitution, administer immediately or store at 2°C to 8°C (36°F to 46°F) and use within 30 minutes
**Diphtheria- and Tetanus-Toxoid- and acellular Pertussis-Containing Vaccines**

**DTaP (Daptacel)**
- **Ages:** 6 weeks through 6 years
- **Use for:** Any dose in the series
- **Route:** Intramuscular (IM) injection

**DTaP-IPV (Kinrix)**
- **Ages:** 4 years through 6 years
- **Use for:**
  - DTaP dose #5
  - IPV dose #4
- **Route:** Intramuscular (IM) injection

**DTaP (Infanrix)**
- **Ages:** 6 weeks through 6 years
- **Use for:** Any dose in the series
- **Route:** Intramuscular (IM) injection

**DTaP-IPV-HepB (Pediarix)**
- **Ages:** 6 weeks through 6 years
- **Use for:**
  - DTaP and IPV: Doses #1, #2, and/or #3
  - HepB: Any dose in the series
- **Route:** Intramuscular (IM) injection

- **Do NOT use for:**
  - DTaP doses 1 through 4 OR IPV doses 1 through 3
  - HepB birth dose
Diphtheria- and Tetanus-Toxoid- and acellular Pertussis-Containing Vaccines

**DTaP-IPV-Hib (Pentacel)**
- **Ages:** 6 weeks through 4 years
- **Use for:** DTaP and IPV: Doses #1, #2, #3, and/or #4
  - Hib: Any dose in the series
- **Route:** Intramuscular (IM) injection
  - **Reconstitute Hib powder ONLY with manufacturer-supplied DTaP-IPV liquid diluent**
  - **Use immediately after reconstitution**
  - **Do NOT administer DTaP-IPV w/o Hib**

**DTaP-IPV-HepB-Hib (Vaxelis)**
- **Ages:** 6 weeks through 4 years
- **Use for:** DTaP and IPV: Doses #1, #2, and/or #3
  - Hep B: Any dose in the series
  - Hib: Any dose in the series
- **Route:** Intramuscular (IM) injection

**DTaP-IPV (Quadracel)**
- **Ages:** 4 years through 6 years
- **Use for:** DTaP dose #5
  - IPV dose #4 or #5
  - **Do NOT use for DTaP doses 1 through 4 OR IPV doses 1 through 3**
- **Route:** Intramuscular (IM) injection
**Hib (ActHIB)**

**Ages:** 6 weeks through 4 years  
**Use for:** Any dose in the series  
**Route:** Intramuscular (IM) injection

*Reconstitute Hib powder ONLY with manufacturer-supplied 0.4% sodium chloride diluent*

*Beyond Use Time: If not used immediately after reconstitution, store at 2°C to 8°C (36°F to 46°F) and discard if not used within 24 hours. Shake well prior to administration.*

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**Hib (PedvaxHIB)**

**Ages:** 6 weeks through 4 years  
**Use for:** Any dose in the series  
**Route:** Intramuscular (IM) injection

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**Hib (Hiberix)**

**Ages:** 6 weeks through 4 years  
**Use for:** Any dose in the series  
**Route:** Intramuscular (IM) injection

*Reconstitute Hib powder ONLY with manufacturer-supplied 0.9% sodium chloride diluent*

*Beyond Use Time: If not used immediately after reconstitution, store at 2°C to 8°C (36°F to 46°F) and discard if not used within 24 hours. Shake well prior to administration.*
Hepatitis Vaccines

**HepA (Havrix)-Pediatric Formulation**
- **Ages:** 12 months through 18 years
- **Use for:** Any dose in the series
- **Route:** Intramuscular (IM) injection

**HepA (Vaqta)-Pediatric Formulation**
- **Ages:** Birth through 19 years
- **Use for:** Any dose in the series
- **Route:** Intramuscular (IM) injection

**HepB (Engerix-B)-Pediatric Formulation**
- **Ages:** 12 months through 18 years
- **Use for:** Any dose in the series
- **Route:** Intramuscular (IM) injection

**HepB (Recombivax HB)-Pediatric Formulation**
- **Ages:** Birth through 19 years
- **Use for:** Any dose in the series
- **Route:** Intramuscular (IM) injection
# Hepatitis Vaccines

<table>
<thead>
<tr>
<th>HepA (Havrix)-Adult Formulation</th>
<th>HepB (Engerix-B)-Adult Formulation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ages:</strong> 19 years and older</td>
<td><strong>Ages:</strong> 20 years and older</td>
</tr>
<tr>
<td><strong>Use for:</strong> Any dose in the series</td>
<td><strong>Use for:</strong> Any dose in the series</td>
</tr>
<tr>
<td><strong>Route:</strong> Intramuscular (IM) injection</td>
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<td><strong>Use for:</strong> Any dose in the series</td>
<td><strong>Use for:</strong> Any dose in the series</td>
</tr>
<tr>
<td><strong>Route:</strong> Intramuscular (IM) injection</td>
<td><strong>Alternate Adolescent Schedule for 11- through 15-year olds:</strong></td>
</tr>
<tr>
<td></td>
<td>Two 1 mL doses 4 to 6 months apart</td>
</tr>
<tr>
<td></td>
<td><strong>Route:</strong> Intramuscular (IM) injection</td>
</tr>
</tbody>
</table>
Hepatitis Vaccines

**HepB (Heplisav-B)**
- **Ages:** 18 years and older
- **Use for:** Any dose in the series (two 0.5 mL doses 1 month apart)
- **Route:** Intramuscular (IM) injection

**HepB (PreHevbrio)**
- **Ages:** 18 years and older
- **Use for:** Any dose in the series
- **Route:** Intramuscular (IM) injection

**HepA-HepB (Twinrix)**
- **Ages:** 18 years and older
- **Contains:** HepA = Pediatric dosage  
  HepB = Adult dosage
- **Schedule:** 0, 1, and 6 months
- **Alternate Schedule:** 0, 7, and 21 to 30 days, followed by booster at 12 months
- **Route:** Intramuscular (IM) injection
Human Papillomavirus Vaccines

9vHPV (Gardasil 9)

**Ages:** 9 years through 45 years

**Recommended ages:** 11 years or 12 years

**Catch-up ages:** 13 years through 26 years

**Shared clinical decision-making ages:** 27 through 45 years

**Route:** Intramuscular (IM) injection
MMR (M-M-R II)

Ages: 12 months and older

Use for: Any dose in the series

Route: Subcutaneous (subcut) injection

Reconstitute MMR powder ONLY with manufacturer-supplied sterile water diluent

Beyond Use Time: If not used immediately after reconstitution, store in vaccine vial in dark place at 2°C to 8°C (36°F to 46°F) and discard if not used within 8 hours.
Meningococcal Vaccines

**MenACWY-D (Menactra)**
- **Ages:** 9 months and older
- **Use for:** Any dose in the series (and certain high-risk groups)
- **Route:** Intramuscular (IM) injection

**MenACWY-TT (MenQuadfi)**
- **Ages:** 2 years and older
- **Use for:** Any dose in the series (and certain high-risk groups)
- **Route:** Intramuscular (IM) injection

**MenACWY-CRM (Menveo)**
- **Ages:** 2 months and older
- **Use for:** Any dose in the series (and certain high-risk groups)
- **Route:** Intramuscular (IM) injection

*Reconstitute the MenA lyophilized conjugate component ONLY with manufacturer-supplied MenCWY liquid conjugate component
Do NOT administer MenCWY w/o MenA
Beyond Use Time: Should be used immediately after reconstitution, but may be stored between 2°C and 25°C (36°F and 77°F) for up to 8 hours. Do not freeze.*
Meningococcal Vaccines

**MenB-4C (Bexsero)**

- **Ages:** 10 years and older
- **Use for:** Any dose in the series
- **Route:** Intramuscular (IM) injection

*Bexsero and Trumenba are NOT interchangeable*  
*Complete series with same vaccine product*

**MenB-FHbp (Trumenba)**

- **Ages:** 10 years and older
- **Use for:** Any dose in the series
- **Route:** Intramuscular (IM) injection

*Bexsero and Trumenba are NOT interchangeable*  
*Complete series with same vaccine product*
Pneumococcal Vaccines

**PCV13 (Prevnar 13)**
- **Ages:** All children 6 weeks through 5 years
- **Certain high-risk groups:** 6 years through 18 years who have never received PCV13 or received an incomplete PCV13 series
- **Route:** Intramuscular (IM) injection

**PCV15 (Vaxneuvance)**
- **Ages:** Adults 65 years and older
- **Certain high-risk groups:** 19 – 64 years with certain medical conditions or risk factors
- **Route:** Intramuscular (IM) injection

**PPSV23 (Pneumovax 23)**
- **Ages:** Adults 65 years and older who received PCV13 or PCV15
- **Certain high-risk groups:** 2 years through 64 years with certain medical conditions or risk factors who received PCV13 or PCV15
- **Route:** Intramuscular (IM) injection OR Subcutaneous (subcut) injection

**PCV20 (Prevnar 20)**
- **Ages:** Adults 65 years and older
- **Certain high-risk groups:** 19 – 64 years with certain medical conditions or risk factors
- **Route:** Intramuscular (IM) injection
Ages: 6 weeks and older

Use for: Any dose in the series

Route: Intramuscular (IM) injection OR Subcutaneous (subcut) injection
RV1 (Rotarix)

Ages: 6 weeks through 8 months, 0 days
Maximum age for 1st dose is 14 weeks, 6 days
Maximum age for last dose is 8 months, 0 days
Route: Oral (PO)

Reconstitute RV1 powder ONLY with manufacturer-supplied sterile water/calcium chloride/xanthan diluent

Beyond Use Time: If not used immediately after reconstitution, store at 2°C to 8°C (36°F to 46°F) or at controlled room temperature up to 25°C (77°F) and discard if not used within 24 hours.

Do NOT inject

RV5 (RotaTeq)

Ages: 6 weeks through 8 months, 0 days
Maximum age for 1st dose is 14 weeks, 6 days
Maximum age for last dose is 8 months, 0 days
Route: Oral (PO)

Do NOT inject
# Tetanus- and Diphtheria-Toxoid-Containing Vaccines

**DT (generic)**

- **Ages:** 6 weeks through 6 years
- **Use for:** Primary series and booster doses **ONLY** for children with a contraindication or precaution to pertussis vaccine
- **Route:** Intramuscular (IM) injection

**Td (generic)**

- **Ages:** 7 years and older
- **Use for:** Primary series and booster doses for persons previously vaccinated with Tdap
- **Route:** Intramuscular (IM) injection

**Td (Tenivac)**

- **Ages:** 7 years and older
- **Use for:** Primary series and booster doses for persons previously vaccinated with Tdap
- **Route:** Intramuscular (IM) injection
Tetanus- and Diphtheria-Toxoid- and Acellular Pertussis-Containing Vaccines

**Tdap (Adacel)**
- **Ages:** 7 years and older
- **Use for:** Routine adolescent dose at 11 to 12 years of age
  - Each pregnancy
  - Patients not fully vaccinated for pertussis
- **Route:** Intramuscular (IM) injection

**Tdap (Boostrix)**
- **Ages:** 7 years and older
- **Use for:** Routine adolescent dose at 11 to 12 years of age
  - Each pregnancy
  - Patients not fully vaccinated for pertussis
- **Route:** Intramuscular (IM) injection
### VAR (Varivax)

<table>
<thead>
<tr>
<th>Ages:</th>
<th>12 months and older</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use for:</td>
<td>Any dose in the series</td>
</tr>
<tr>
<td>Route:</td>
<td>Subcutaneous (subcut) injection</td>
</tr>
</tbody>
</table>

**Reconstitute VAR powder ONLY with manufacturer-supplied sterile water diluent**

**Beyond Use Time:** Discard reconstituted vaccine if not used within 30 minutes.

### MMRV (ProQuad)

<table>
<thead>
<tr>
<th>Ages:</th>
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<tbody>
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<tr>
<td>Route:</td>
<td>Subcutaneous (subcut) injection</td>
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</table>

**Reconstitute MMRV powder ONLY with manufacturer-supplied sterile water diluent**

**Beyond Use Time:** Discard reconstituted vaccine if not used within 30 minutes.
<table>
<thead>
<tr>
<th><strong>RZV (Shingrix)</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ages:</strong></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
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</tr>
<tr>
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<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td><strong>Beyond Use Time:</strong></td>
</tr>
</tbody>
</table>
Reconstituted Vaccines

**DTaP-IPV/HIB (Pentacel)**

- Lyophilized Hib component
- Manufacturer’s DTaP-component

**MMR (M-M-R II)**

- Lyophilized MMR component
- Manufacturer’s sterile water diluent

**Hib (ActHIB)**

- Lyophilized Hib component
- Manufacturer’s 0.4% sodium chloride diluent

**Hib (Hiberix)**

- Lyophilized Hib component
- Manufacturer’s 0.9% sodium chloride diluent

**Beyond Use Time:** If not used immediately after reconstitution, store at 2°C to 8°C (36°F to 46°F) and discard if not used within:

- DTaP-IPV/HIB (Pentacel): 8 hours.
- MMR (M-M-R II): 8 hours.
- Hib (ActHIB): 24 hours.
- Hib (Hiberix): 24 hours.

Should be shaken vigorously before injection.
Reconstituted Vaccines

**MenACWY-CRM (Menveo)**

- Lyophilized MenA component
- MenCWY liquid component

= Menveo vaccine

*Beyond Use Time:* Should be used immediately after reconstitution, but may be stored at or below 25°C (77°F) and discarded if not used within 8 hours.

**RV1 (Rotarix)**

- Lyophilized RV1 component
- Manufacturer’s sterile water-calcium carbonate-xanthan diluent

= Rotarix vaccine

*Beyond Use Time:* If not used immediately after reconstitution, store at 2°C to 8°C (36°F to 46°F) or at controlled room temperature up to 25°C (77°F) and discard if not used within 24 hours.

*Do NOT inject*
Reconstituted Vaccines

**VAR (Varivax)**

- Lyophilized VAR component
- Manufacturer’s sterile water diluent
- Varivax vaccine

*Beyond Use Time: Discard reconstituted vaccine if not used within 30 minutes.*

**MMRV (ProQuad)**

- Lyophilized MMRV component
- Manufacturer’s sterile water diluent
- ProQuad vaccine

**RZV (Shingrix)**

- Lyophilized varicella zoster component
- Manufacturer’s adjuvant suspension
- Shingrix vaccine

*Beyond Use Time: Discard reconstituted vaccine if not used within 6 hours.*