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 with the goal of 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 natural rubber latex 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 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
  - Do NOT use for DTaP doses 1 through 4 OR IPV doses 1 through 3
- **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:** DTaPand IPV: Doses #1, #2, and/or #3
  - HepB: Any dose in the series
  - Do NOT use for HepB birth dose
- **Route:** Intramuscular (IM) injection
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  
(Do NOT use for HepB birth dose)  
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
**Haemophilus influenzae type b-Containing Vaccines**

**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.

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

**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

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

**HepA (Vaqta)-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
<table>
<thead>
<tr>
<th>Hepatitis Vaccines</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>HepA (Havrix)-Adult Formulation</strong></td>
</tr>
<tr>
<td>Ages: 19 years and older</td>
</tr>
<tr>
<td>Use for: Any dose in the series</td>
</tr>
<tr>
<td>Route: Intramuscular (IM) injection</td>
</tr>
</tbody>
</table>

| **HepB (Engerix-B)-Adult Formulation** |
| Ages: 20 years and older |
| Use for: Any dose in the series |
| Route: Intramuscular (IM) injection |

| **HepA (Vaqta)-Adult Formulation** |
| Ages: 19 years and older |
| Use for: Any dose in the series |
| Route: Intramuscular (IM) injection |

| **HepB (Recombivax HB)-Adult Formulation** |
| Ages: 20 years and older |
| Use for: Any dose in the series |
| Alternate Adolescent Schedule for 11-through 15-year olds: Two 1 mL doses 4 to 6 months apart |
| Route: Intramuscular (IM) injection |
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

**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

**HepB (PreHevbrio)**

**Ages:** 18 years and older

**Use for:** Any dose in the series

**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
# Measles, Mumps, Rubella Vaccine

## MMR (M-M-R II)

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

**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

<table>
<thead>
<tr>
<th>MenACWY-D (Menactra)</th>
<th>MenACWY-TT (MenQuadfi)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ages:</strong> 9 months and older</td>
<td><strong>Ages:</strong> 2 years and older</td>
</tr>
<tr>
<td><strong>Use for:</strong> Any dose in the series (and certain high-risk groups)</td>
<td><strong>Use for:</strong> Any dose in the series (and certain high-risk groups)</td>
</tr>
<tr>
<td><strong>Route:</strong> Intramuscular (IM) injection</td>
<td><strong>Route:</strong> Intramuscular (IM) injection</td>
</tr>
</tbody>
</table>

*Do NOT Freeze*
### Meningococcal Vaccines

**MenACWY-CRM (Menveo)**

**Two-Vial (Reconstitution Required)**

- Orange Cap Vial (MenA)  
- Gray Cap Vial (CWY)

**Ages:** 2 months and older  
**Use for:** Any dose in the series  
**Route:** Intramuscular (IM) injection

Reconstitute the MenA lyophilized conjugate component ONLY with manufacturer-supplied MenCWY liquid conjugate component.  
Do NOT administer MenCWY without MenA

**Do NOT Freeze**

**Beyond Use Time:** Use immediately after reconstitution. May be stored between 2°C and 25°C (36°F and 77°F) for up to 8 hours.

---

**MenACWY-CRM (Menveo)**

**Single-Vial (Ready-to-Use)**

- Pink Cap Vial

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

**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*
<table>
<thead>
<tr>
<th>Pneumococcal Vaccines</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PCV13 (Prevnar 13)</strong></td>
<td><strong>PCV15 (Vaxneuvance)</strong></td>
</tr>
<tr>
<td><strong>Ages:</strong> Children 6 weeks through 5 years</td>
<td><strong>Ages:</strong> 6 weeks and older</td>
</tr>
<tr>
<td><strong>Certain high-risk groups</strong> 6 years through 18 years who have never received PCV13 or received an incomplete PCV13 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>Route:</strong> Intramuscular (IM) injection</td>
</tr>
<tr>
<td></td>
<td><strong>Do NOT Freeze</strong></td>
</tr>
<tr>
<td><strong>PPSV23 (Pneumovax 23)</strong></td>
<td><strong>PCV20 (Prevnar 20)</strong></td>
</tr>
<tr>
<td><strong>Ages:</strong> Persons aged 2 through 64 years with certain risk conditions or adults 65 years and older with indications</td>
<td><strong>Ages:</strong> 6 weeks and older</td>
</tr>
<tr>
<td><strong>Use for:</strong> After PCV15 dose</td>
<td><strong>Use For:</strong> Any dose in the series</td>
</tr>
<tr>
<td><strong>Route:</strong> Intramuscular (IM) injection OR Subcutaneous (subcut) injection</td>
<td><strong>Route:</strong> Intramuscular (IM) injection</td>
</tr>
<tr>
<td></td>
<td><strong>Do NOT Freeze</strong></td>
</tr>
</tbody>
</table>

*Do NOT Freeze*
**Poliovirus Vaccine**

<table>
<thead>
<tr>
<th><strong>IPV</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ages:</strong></td>
</tr>
<tr>
<td><strong>Use for:</strong></td>
</tr>
<tr>
<td><strong>Route:</strong></td>
</tr>
</tbody>
</table>
RV1 (Rotarix)
Vial plus Oral Applicator

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

Reconstitute RV1 powder ONLY with manufacturer-supplied sterile water/calcium carbonate/xanthan diluent
Do NOT Inject
Do NOT Freeze

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.

RV1 (Rotarix)
Single Oral Applicator (Ready-to-use)

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

Do NOT Inject
Do NOT Freeze
Rotavirus Vaccines

**RV5 (RotaTeq)**

**Ages:** 6 weeks through 8 months, 0 days

**Doses:** Two
- Maximum age for 1st dose - 14 weeks, 6 days
- Maximum age for last dose is 8 months, 0 days

**Route:** Oral (PO)

**Do NOT inject**
Respiratory Syncytial Virus (RSV)

**RSV (Pfizer/ABRYSVO)**

**Ages:** 60 years and older  
Pregnant people at 32-36 weeks gestation

**Route:** Intramuscular (IM) injection

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

**Do Not Freeze**

Beyond Use Time: If not used immediately after reconstitution, store at room temperature [15°C to 30°C (59°F to 86°F)] and discard if not used within 4 hours.

**RSV (GSK/AREXVY)**

**Ages:** 60 years and older

**Route:** Intramuscular (IM) injection

*Reconstitute RSV powder ONLY with manufacturer-supplied adjuvant suspension*

**Do Not Freeze**

Beyond Use Time: If not used immediately after reconstitution, store refrigerated at 2°C to 8°C (36°F to 46°F) or at room temperature up to 25°C (77°F). Discard if not used within 4 hours.
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
### 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
Frozen Varicella-Containing Vaccines

**VAR (Varivax)**
- **Ages:** 12 months and older
- **Use for:** Any dose in the series
- **Route:** Subcutaneous (subcut) injection

Reconstitute VAR powder ONLY with manufacturer-supplied sterile water diluent

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

**MMRV (ProQuad)**
- **Ages:** 12 months through 12 years
- **Use for:** Any dose in the series
- **Route:** Subcutaneous (subcut) injection

Reconstitute MMRV powder ONLY with manufacturer-supplied sterile water diluent

Beyond Use Time: Discard reconstituted vaccine if not used within 30 minutes.
RZV (Shingrix)

Ages: Adults 50 years and older
     Adults 19 years and older who are or will be immunodeficient or immunosuppressed because of disease or therapy

Use for: Any dose in the series

Route: Intramuscular (IM) injection

Refrigerate both components; do NOT freeze

Reconstitute lyophilized varicella zoster component with manufacturer-supplied adjuvant suspension

Beyond Use Time: Discard reconstituted vaccine if not used within 6 hours.
<table>
<thead>
<tr>
<th>Reconstituted Vaccines</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DTaP-IPV/HIB (Pentacel)</strong></td>
</tr>
<tr>
<td>Lyophilized Hib component</td>
</tr>
<tr>
<td>IPV liquid component</td>
</tr>
<tr>
<td><strong>Hib (ActHIB)</strong></td>
</tr>
<tr>
<td>Lyophilized Hib component</td>
</tr>
<tr>
<td>ActHIB vaccine</td>
</tr>
<tr>
<td><strong>MMR (M-M-R II)</strong></td>
</tr>
<tr>
<td>Lyophilized MMR component</td>
</tr>
<tr>
<td>M-M-R II vaccine</td>
</tr>
<tr>
<td><strong>Hib (Hiberix)</strong></td>
</tr>
<tr>
<td>Lyophilized Hib component</td>
</tr>
<tr>
<td>Hiberix vaccine</td>
</tr>
</tbody>
</table>

**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 8 hours.

**Should be used immediately after reconstitution.**

**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.

**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.
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

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

RZV (Shingrix)

Lyophilized varicella zoster component + Manufacturer’s adjuvant suspension = Shingrix vaccine

Refrigerate both components; do NOT freeze
Beyond Use Time: Discard reconstituted vaccine if not used within 6 hours.