GENERAL INFORMATION

Pneumococcal conjugate vaccine (PCV13) helps to prevent invasive diseases caused by 13 strains of S. pneumoniae (including bloodstream infections, meningitis and ear infections).

PCV13 replaces PCV7 and expands coverage to include 6 additional disease-causing strains.

The vaccine is approved by the Federal Food and Drug Administration (FDA) for use in infants and children at least six (6) weeks of age through 71 months old.

Immunosuppressed children may not respond optimally to immunization; however, it is still important to administer.

Pneumococcal conjugate vaccine may be administered simultaneously with other vaccines

PCV13 is recommended for:

All children who have not reached their 5th birthday; even if they have completed the PCV7 vaccine series. (See Plan for additional recommendations)

All children aged 60 through 71 months (until 6th birthday) with underlying medical conditions that increase their risk for invasive pneumococcal disease (IPD) – Table 3.

Contraindications to giving the vaccine include the following:

An immediate anaphylactic reaction to the vaccine or a constituent of the vaccine, such as diphtheria toxoid

Acute, moderate, or severe illnesses with or without fever (defer until resolution).

Note: Mild illness with or without fever is NOT a contraindication.

Note: There is no risk for latex allergic patients. The product does not contain latex.

Adverse events:

Swelling, redness and/or pain at site of administration

Low-grade fever

Systemic reactions infrequent, serious adverse reactions rare

PLAN

Have accompanying adult read “Vaccine Information Statement” (VIS)

Counsel regarding benefits, side effects, and management

Administration of vaccine:

The recommended immunization schedule consists of three (3) doses at approximately two (2) month intervals (ages 2, 4, and 6 months), followed by a fourth dose at 12-15 months of age. (See Table 1 for dosing schedule)

The usual age for the first dose is 2 months, but it can be given as young as six (6) weeks of age
The recommended dosing interval is 4-8 weeks
The fourth dose should be administered at age 12-15 months, and at least 8 weeks after the third dose
For children who have never received a dose of PCV 7, follow Table 1 (Routine Schedule)
For children who have received at least one previous dose of PCV 7, follow Table 2 (Transition Schedule)
For a list of high risk medical conditions, see Table 3.

The dose is 0.5 ml to be given intramuscularly
Shake vigorously immediately prior to administration of vaccine in order to obtain a uniform suspension

Table 1: Routine Schedule

<table>
<thead>
<tr>
<th>Age at first dose (mos.)</th>
<th>Primary PCV13 series*</th>
<th>PCV13 booster dose†</th>
</tr>
</thead>
<tbody>
<tr>
<td>2–6</td>
<td>3 doses (ideally age 2, 4, 6 mos.)</td>
<td>1 dose at age 12–15 mos.</td>
</tr>
<tr>
<td>7–11</td>
<td>2 doses</td>
<td>1 dose at age 12–15 mos</td>
</tr>
<tr>
<td>12–23</td>
<td>2 doses</td>
<td>—</td>
</tr>
<tr>
<td>24–59 (Healthy children)</td>
<td>1 dose</td>
<td>—</td>
</tr>
<tr>
<td>24–71 (Children with certain chronic diseases or immunocompromising conditions§)</td>
<td>2 doses</td>
<td>—</td>
</tr>
</tbody>
</table>

* Minimum interval between doses is 8 weeks except for children vaccinated at age <12 months for whom minimum interval between doses is 4 weeks. Minimum age for administration of first dose is 6 weeks.
† Given at least 8 weeks after the previous dose.
§ For complete list of conditions, see Table 3.

Table 2: Transition Schedule

<table>
<thead>
<tr>
<th>Infant series</th>
<th>Booster dose</th>
<th>Supplemental PCV13 dose</th>
</tr>
</thead>
<tbody>
<tr>
<td>PCV7</td>
<td>PCV13</td>
<td>—</td>
</tr>
<tr>
<td>PCV7</td>
<td>PCV7</td>
<td>PCV13</td>
</tr>
<tr>
<td>PCV7</td>
<td>PCV7</td>
<td>PCV13</td>
</tr>
<tr>
<td>PCV7</td>
<td>PCV7</td>
<td>—</td>
</tr>
</tbody>
</table>

* No additional PCV13 doses are indicated for children age 12–23 months who have received 2 or 3 doses of PCV before age 12 months and at least 1 dose of PCV13 at age ≥12 months.
† For children with underlying medical conditions (see Table 3), a single supplemental PCV13 dose is recommended through age 71 months
Table 3: Medical Conditions that Increase Risk of Invasive Pneumococcal Disease

Underlying medical conditions that are indications for pneumococcal vaccination among children, by risk group

<table>
<thead>
<tr>
<th>Risk group</th>
<th>Condition</th>
</tr>
</thead>
</table>
| Immunocompetent children            | Chronic heart disease*  
|                                     | Chronic lung disease†  
|                                     | Diabetes mellitus  
|                                     | Cerebrospinal fluid leaks  
|                                     | Cochlear implant  
| Children with functional or anatomic asplenia | Sickle cell disease and other hemoglobinopathies  
|                                     | Congenital or acquired asplenia, or splenic dysfunction  
| Children with immunocompromising conditions | HIV infection  
|                                     | Chronic renal failure and nephrotic syndrome  
|                                     | Diseases treated with immunosuppressive drugs or radiation therapy, including malignant neoplasms, leukemias, lymphomas, and Hodgkin disease; or solid organ transplant  
|                                     | Congenital immunodeficiency§  

* Particularly cyanotic congenital heart disease and cardiac failure.  
† Including asthma if treated with prolonged high-dose oral corticosteroids.  
§ Includes B- (humoral) or T-lymphocyte deficiency; complement deficiencies, particularly C1, C2, C3, and C4 deficiency; and phagocytic disorders (excluding chronic granulomatous disease).

**Note:**
The use of PCV13 does not replace the use of 23-valent pneumococcal polysaccharide vaccine (PPSV23) in children ≥ 24 months of age with the underlying medical conditions listed in Table 3. PCV13 should be given at least 8 weeks after the last dose of PCV7 or PPSV23. If a child will need PPSV23 and PCV13, it is preferred to administer the PCV13 before the PPSV23 (at least 8 weeks apart).

With a physician or nurse practitioner order, a single dose of PCV13 may be administered to children aged 6-18 years who have sickle cell disease, HIV or other immunocompromising condition, cochlear implant or cerebrospinal fluid leaks, regardless of PPSV23 or PCV7 immunization status.

**Post Immunization Administrative Issues:**

Advise to wait in clinic 20 minutes after injection  
Record manufacturer and lot number of the vaccine administered, date, name, address and title of person administering vaccine  
Instruct parent to contact Health Department if adverse reaction occurs (complete appropriate Vaccine Adverse Event Report [VAERS] Form)
Referral Indicators:

A history of anaphylactic hypersensitivity to any component of the vaccine

Follow-up:

Return for next pneumococcal vaccine dose at appropriate interval

REFERENCES:

CDC. Licensure of a 13-Valent Pneumococcal Conjugate Vaccine (PCV13) and Recommendations for Use Among Children — Advisory Committee on Immunization Practices (ACIP), 2010. MMWR
http://www.cdc.gov/mmwr/pdf/wk/mm5909.pdf
PREVNAR 13 (Pneumococcal 13-valent Conjugate Vaccine [Diphtheria CRM197 Protein]) Prescribing Information:
http://www.wyeth.com/content/showlabeling.asp?id=501
RABIES VACCINE, POSTEXPOSURE - Information Only

In general, postexposure rabies vaccination is not provided by the Health Department. Referrals should be made to the emergency department or private physician. If these referral options are not available, the Regional Health Officer, Regional CEDS Director or on-call staff should be contacted.

GENERAL INFORMATION

Rabies postexposure prophylaxis is a medical urgency (not an emergency). However, when rabies prophylaxis is indicated, it should be started as soon as possible.

The following factors help determine whether rabies postexposure prophylaxis is indicated:

- History of possible rabies exposure:
  - Bite Exposure involves penetration of the skin by the animal’s teeth, with injection of potentially infectious saliva with the wound
  - Nonbite Exposure involves contamination of scratches, abrasions, open wounds or mucous membranes with potentially infectious material (saliva or central nervous tissue); it should be noted that the probability of introduction of virus is much lower with nonbite than with bite exposures; casual contact, such as petting a rabid animal, or contact with its blood, urine, or feces, does not constitute an exposure
- Epidemiology of animal rabies in the area where the exposure occurred
- Vaccination status of animal (properly immunized pets are unlikely to be rabid)
- Circumstances of animal bite (while not the sole determinant of the need for post exposure prophylaxis, unprovoked attacks and bites constitute a higher risk than provoked ones)
- Species of animal involved (skunks, raccoons, and bats are most commonly infected and always suspect; foxes, coyotes, cattle, dogs, and cats [especially stray] are occasionally infected; and rodents, rabbits and hares are rarely infected)
- Rabies confirmed in animal
- Rabies suspected in animal - test results pending
- Animal unavailable for quarantine or testing (i.e., runaway animal, stray - unable to capture, killed-head destroyed, etc.)
RABIES VACCINE, POSTEXPOSURE – Information Only

(Continued)

RABIES POSTEXPOSURE TREATMENT PLAN:

Review patient history and provide local wound care:

- Meticulous deep cleaning and flushing of the wound site as soon as possible is an effective means of preventing attachment of the rabies virus if present
- Cleanse wound thoroughly and vigorously to the depth of the wound with soap and water and a virucidal agent such as povidone-iodine, flush wound thoroughly and deeply

Administer anti-rabies treatments: Reconstitute vaccine per manufacturer’s directions

- Previously vaccinated persons: persons who have previously completed a preexposure or postexposure series should not receive Human Rabies Immune Globulin (HRIG); Administer 1 ml rabies vaccine (Human Diploid Cell Vaccine [HDCV / Imovax] or Purified Chick Embryo Cell Vaccine [PCEC / RabAvert]), IM on day 0 and day 3

- Unvaccinated persons: should always receive both HRIG and rabies vaccine
  - Administer HRIG (Imogam Rabies-HT or BayRab), 20 IU/kg or 1 ml/16 lb of body weight on day 0 (at the same time the first dose of vaccine is given) or as soon as possible after exposure
    - If possible, up to half the dose should be used to infiltrate the wound (except mucous membrane exposure), and the rest administered intramuscularly in the buttocks
    - If HRIG is not available, proceed with the vaccine series; HRIG can be given with the 2nd or 3rd rabies vaccine dose (until day 7), but should not be given any later in order to prevent immune response interference
  - Administer 1 ml of rabies vaccine (Human Diploid Cell Vaccine [HDCV / Imovax] or Purified Chick Embryo Cell Vaccine [PCEC / RabAvert]) on days 0, 3, 7, and 14 given IM per manufacturer’s directions

- Precautions–Immunosuppression: for persons with broadly defined immunosuppression, post-exposure prophylaxis should be administered using 5 doses (on days 0, 3, 7, 14, and 28) of vaccine, with the awareness that the immune response may still be inadequate.

Instruct patient to remain in clinic for 20 minutes following treatment / vaccination (observe for possible reaction)
Health Education:

- Discuss adverse reactions such as mild to moderate inflammatory reactions, as well as mild systemic reactions such as headache, nausea, abdominal pain, muscle aches, dizziness
- Be sure that client understands the importance of keeping return appointment dates

Follow-Up:

- Post-vaccination serology is not recommended except in unusual circumstances, e.g., when the patient is known to be immunosuppressed
- Document and report any adverse reaction

References:


Centers for Disease Control and Prevention, Use of a Reduced (4-Dose) Vaccine Schedule for Postexposure Prophylaxis to Prevent Human Rabies, Recommendations of the Advisory Committee on Immunization Practices. MMWR 2010;59(No. RR-2).