



Updated March 2016  
 For further information contact  
 IPAC: Immunization Practices Advisory Council  
 Maggie June • 505-272-3032 • mjune@unm.edu

## Pneumococcal Polysaccharide and Conjugate Vaccine for Children ages $\leq 18$

The Immunization Practices Advisory Council (IPAC) and the New Mexico Department of Health urge all medical practices and health professionals to offer immunization against pneumococcal disease to children and adults. Pneumococcal infection accounts for more deaths than any other vaccine-preventable bacterial disease.

**PCV13, the 13 serotype pneumococcal conjugate vaccine is recommended for routine administration of 4 doses in children.**

PCV13 is recommended for children because it is expected that the conjugated vaccine will provide a more vigorous protective response and longer memory against the 13 serotypes in the vaccine. In addition, the 23 serotype pneumococcal polysaccharide vaccine (PPSV23) is recommended to be used in some children over the age of 2 years with certain high risk conditions. The IPAC offers the following information and recommendations for the use of these two pneumococcal vaccines:

**Immunization of children with 13-valent Pneumococcal conjugate vaccine (PCV13)**

PCV13 is indicated for all children younger than 59 months of age. PCV13 replaced PCV7 in 2010; PCV7 should no longer be used. The routine series consists of doses given at 2, 4, 6, and 12-15 months of age. Children who received a complete series of PCV7 and are under 60 months of age should receive a single additional dose of PCV13. All children who have received an incomplete series of PCV7 should complete the series with PCV13. The recommended schedule for older children, including catch-up schedule is as follows:

**PCV13 for older unvaccinated children and catch-up schedule**

Age at FIRST dose	Total doses	Dosing information
7-11 months	3	2 doses at least 4 weeks apart, 3 <sup>rd</sup> dose after 12 months of age, and at least 2 months after 2 <sup>nd</sup> dose
12-23 months	2	2 doses at least 2 months apart
24-59 mo. immunocompetent	1	1 dose (if PPSV23 given first, give at least 2 mo. after)
24-59 mo. immunocompromised who have received 3 doses	1	1 dose (if PPSV23 given first, give at least 2 mo. after)
24-59 mo. immunocompromised who have received <3 doses	2	2 doses given 8 weeks apart (if PPSV23 given first, give at least 2 mo. after)

**Recommendations for administering pneumococcal vaccine to high-risk children**

Children ages 2 to 18 year of age with the following chronic illnesses listed below should receive PPSV23 in addition to the routinely recommended schedule of immunization with PCV13 for infants and children. PPSV23 should not be given to children until at least 2 years of age. Chronic illnesses indicating need for PPSV23:

- |   |   |   |   |
|---|---|---|---|
| <ul style="list-style-type: none"> <li>• Chronic heart disease</li> <li>• Chronic lung disease</li> <li>• Diabetes mellitus</li> <li>• CSF leak</li> <li>• Cochlear implant</li> <li>• Chronic liver disease</li> </ul> | <ul style="list-style-type: none"> <li>• Sickle cell disease</li> <li>• Hemoglobinopathy</li> <li>• Congenital or acquired asplenia</li> <li>• Congenital or acquired immunodeficiency</li> </ul> | <ul style="list-style-type: none"> <li>• HIV infection</li> <li>• Chronic renal failure</li> <li>• Nephrotic syndrome</li> <li>• Leukemia</li> <li>• Lymphoma</li> <li>• Hodgkin’s disease</li> </ul> | <ul style="list-style-type: none"> <li>• Generalized malignancy</li> <li>• Iatrogenic immunosuppression</li> <li>• Solid organ transplantation</li> <li>• Multiple myeloma</li> </ul> |
|---|---|---|---|

Children 2-18 years of age with an underlying medical condition increasing the risk of invasive pneumococcal disease should receive PPSV23 as soon as possible after the diagnosis is made. Doses of PCV13 should be completed before PPSV23 is administered with minimal interval of 8 weeks between the last dose of PCV13 and the first dose of PPSV23. If a child previously received PPSV23, the child should also receive any recommended doses of PCV13. A second dose of PPSV23 is recommended 5 years after the first dose in children with sickle cell diseases or functional or anatomic asplenia, HIV infection or other immunocompromising conditions, but no more than 2 total doses of PPSV23 are recommended. PPSV23 or PCV13 can be given concurrently with other vaccines, except meningococcal conjugate vaccines should not be administered concomitantly with or

within 4 weeks of PCV13 because of potential interference with the immune response. **PPSV23 and PCV13 should not be given concurrently. PPSV23 should not be given sooner than 8 weeks after PCV13.**

When elective splenectomy is performed for any reason, immunization with PCV13 should be completed at least 2 weeks before surgery. Immunization should precede initiation of immune-compromising therapy or placement of a cochlear implant by at least 2 weeks. PPSV23 can be given 8 or more weeks after PCV13.

#### **Additional high risk persons living in New Mexico**

Children who are of American Indian or Alaska Native descent are at higher risk of invasive pneumococcal disease. Native American children should uniformly receive PCV13 vaccine as recommended for all children. Children who have received PCV13 may electively receive PPSV23 following the recommendations provided above for other high risk persons.

#### **Giving Pneumococcal and Influenza vaccination together**

- . No increase in side effects.
- . No decrease in antibody response.
- . Give injections in separate arms/sites.

#### **Side effects**

- . Local injection-site soreness, erythema, induration common.
- . Low-grade fever and myalgia infrequent (<1%).
- . Other side effects uncommon.

#### **Contraindications and precautions**

- . A severe allergic reaction to a prior dose or vaccine component is a contraindication to further doses.
- . If possible, delay PPSV23 vaccination of patients undergoing chemotherapy. If you are unable to delay, revaccinate three months after completion of the therapy.
- . Women who are candidates for PPSV23 and are considering pregnancy should be vaccinated before pregnancy, if possible.

#### **How to store and administer the vaccine**

- . Refrigerate immediately upon arrival—do not use if frozen.
- . Refrigerate opened or unopened at 2-8°C (35-46°F).
- . Do not use after expiration date.
- . PCV13: Shake vial vigorously before each dose.
- . PCV13 for youths: IM deltoid only.
- . PPSV23 for youths: IM deltoid with 22-25 gauge needle. Choose needle length appropriate to child's age and body mass (2-10 years, 1-1¼"; ≥11 years, 1-1½"). Or SC (23-25 gauge, 5/8" length) in posterior lateral fat of upper arm.

#### **To obtain vaccine**

PCV13 and PPSV23 vaccines are available for youth <19 through the NM Department of Health Vaccines for Children Program (VFC), contact 888.231.2367. There is no charge for vaccine for children covered by Medicaid or with no healthcare insurance. For children covered by another third-party payer, vaccine cost needs to be reimbursed to NM VFC Program.

#### **Suggestions for smooth third party reimbursement**

All major payers in NM reimburse pneumococcal vaccination.

#### **Coding child/youth PPSV23**

- . No source can be billed for the vaccine acquired from VFC. Claims should show the vaccine code (90732) with a zero (\$0.00) charge, and the administration fee code (90465 or 90466) for children under eight with counseling, 90471 or 90472 for children eight and older or without counseling.

- . The exception is the fee-for-service exempt Medicaid (not Centennial) program. For exempt Medicaid patients, use only the CPT code for the vaccine (90732) and enter the usual charge for vaccine administration for it. Use diagnosis code V03.82 for PPSV23 vaccine and administration.

#### **Coding PCV13**

- . No source can be billed for the vaccine acquired from VFC. Claims should show the vaccine code with a zero (\$0.00) charge, and the administration fee code (90465 or 90466) for children under eight with counseling; 90471 or 90472 for children eight and older or without counseling.
- . The exception is the fee-for-service exempt Medicaid (not Centennial) program. For exempt Medicaid patients, use only the CPT code for the vaccine (90670) and enter the usual charge for vaccine administration for it. Use diagnosis code V03.82 for PCV13 vaccine and administration.

#### **For additional information**

NM Department of Health at <http://www.immunizenm.org> 866-681-5872

Centers for Disease Control and Prevention Vaccination Information Statements, or, <http://www.immunize.org/vis/>  
<http://www.cdc.gov/vaccines/hcp/vis/vis-statements/ppv.html>

<http://www.cdc.gov/vaccines/pubs/vis/downloads/vis-ppv.pdf> \* <http://www.cdc.gov/vaccines/vpd-vac/pneumo/default.htm>  
<http://www.cdc.gov/vaccines/pubs/pinkbook/downloads/pneumo-508.pdf> Pink Book section on Pneumococcal disease