

AAP Recommendations on Vaccination Against *Streptococcus pneumoniae* Infection

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Invasive disease from *Streptococcus pneumoniae* remains a public health problem in children, despite widespread use of the seven-valent pneumococcal conjugate vaccine (PCV7; Prevnar). In 2000, an estimated 14.5 million cases occurred in children younger than five years, resulting in approximately 826,000 deaths.

The frequency of invasive pneumococcal disease attributed to serotypes not included in PCV7 has increased, prompting the need for a pneumococcal conjugate vaccine with expanded coverage. In February 2010, the U.S. Food and Drug Administration licensed a 13-valent pneumococcal conjugate vaccine (PCV13; Prevnar 13) for use in children two through 71 months of age. PCV13 will replace PCV7. It contains the same seven pneumococcal capsular polysaccharides that are in PCV7, plus six additional serotypes that are responsible for substantial rates of invasive pneumococcal disease in U.S. children. It is administered as a four-dose series given at two, four, six, and 12 through 15 months of age.

PCV13 will follow the same routine and catch-up immunization schedules recommended by the Advisory Committee on Immunization Practices of the Centers for Disease Control and Prevention. All children two through 59 months of age should receive the vaccine, as should children 60 through 71 months of age who

have underlying medical conditions that increase their risk of invasive pneumococcal disease (e.g., those with chronic heart or lung disease; diabetes mellitus; sickle cell disease; anatomic or functional asplenia; human immunodeficiency virus [HIV] infection or another immunocompromising condition; or a cochlear implant or cerebrospinal fluid leak). Children who have received at least one dose of PCV7 should complete the vaccination series with PCV13 once it is available. Previously administered PCV7 doses count toward completion of the recommended vaccination series.

A single supplemental dose of PCV13 is recommended for healthy children 14 through 59 months of age who have been completely vaccinated with PCV7. An interval of at least eight weeks is recommended between the final dose of PCV7 and the supplemental dose of PCV13. A supplemental dose also is recommended for children 14 through 71 months of age who are at high risk of pneumococcal disease and have been completely immunized with PCV7. Children should not be recalled for vaccination, but the supplemental dose should be given at the next appropriate medical visit.

A single dose of PCV13 should be administered to children six through 18 years of age who are at increased risk of invasive pneumococcal disease, regardless of whether they have received PCV7 or the 23-valent pneumococcal polysaccharide vaccine (PPSV; Pneumovax).

Children at high risk of invasive pneumococcal disease who are at least two years of age should receive PPSV after the PCV13 series is complete; PPSV should be given at least eight weeks after the last dose of PCV13 but as soon as possible after a diagnosis of chronic illness is made. Another dose of PPSV—for a total of two doses—is recommended five years after the first dose for children with sickle cell disease, anatomic or functional asplenia, HIV infection, or other immunocompromising conditions. ■