Guidelines have been updated for use of the 23-valent pneumococcal polysaccharide vaccine (PPSV23) in adults, according to a report in the September 3 issue of *MMWR. Morbidity and Mortality Weekly Report*.

"Invasive disease from *Streptococcus pneumoniae* (pneumococcus) is a major cause of illness and death in the United States, with an estimated 43,500 cases and 5,000 deaths among persons of all ages in 2009," write J. P. Nuorti, MD, DSc, and C. G. Whitney, MD, from the Division of Bacterial Diseases, National Center for Immunization and Respiratory Diseases, US Centers for Disease Control and Prevention, for the Advisory Committee on Immunization Practices (ACIP) Pneumococcal Vaccines Working Group. "This report provides updated recommendations from the ...ACIP for prevention of invasive pneumococcal disease (IPD) (i.e., bacteremia, meningitis, or infection of other normally sterile sites through use of the ...PPSV23 among all adults aged Ó65 years and those adults aged 19ï 64 years with underlying medical conditions that put them at greater risk for serious pneumococcal infection."

Compared with the 1997 ACIP recommendations, the new guidelines now include smoking and asthma as indications for which PPSV23 vaccination is recommended. Furthermore, routine use of PPSV23 is no longer recommended for Alaska Natives or American Indians younger than 65 years unless they have medical or other indications for PPSV23.

ACIP recommendations remain unchanged regarding revaccination with PPSV23 among the adult patient groups at greatest risk for IPD, namely those with functional or anatomic asplenia and those with immunocompromising conditions. The updated guidelines do not address ACIP recommendations for preventing pneumococcal disease among infants and youths 18 years or younger using the 13-valent pneumococcal conjugate vaccine and PPSV23; these recommendations are published separately.

Updated Recommendations

Specific updated ACIP recommendations for administration of PPSV23 among adults 19 years or older include the following:

- Adults aged 19 to 64 years with chronic or immunosuppressive medical conditions, including asthma, should receive PPSV23.
- For adults aged 19 to 64 years who smoke cigarettes, PPSV23 administration and smoking cessation guidance are recommended.
- Unless there are medical indications for PPSV23, routine administration of PPSV23 is no longer recommended for Alaska Natives or American Indians younger than 65 years. However, for Alaska Natives and American Indians aged 50 to 64 years who reside in areas where the risk for IPD is increased, public health authorities may recommend PPSV23 administration in certain situations.
- At age 65 years, all persons should receive PPSV23 vaccination. Persons given PPSV23 for any indication before age 65 years should be given another dose of PPSV23 at 65 years or older if 5 years or more have passed since their previous dose. Persons who receive PPSV23 at or after age 65 years should receive only a single dose.
- For most persons for whom PPSV23 is indicated, the ACIP does not recommend routine revaccination. For persons aged 19 to 64 years with functional or anatomic asplenia and for persons with immunocompromising conditions, a second dose of PPSV23 should be given 5 years after the first dose. However, because of uncertainty regarding clinical benefit and safety, the ACIP does not recommend multiple revaccinations.

Other Indications for Administration

Underlying medical conditions or other indications for administration of PPSV23 among adults aged 19 to 64 years include the following:

- Immunocompetent persons with chronic heart disease (excluding hypertension); chronic lung disease including chronic obstructive pulmonary disease, emphysema, and asthma; diabetes mellitus; cerebrospinal fluid leaks; cochlear implant; alcoholism; chronic liver disease, including cirrhosis; and cigarette smoking;
- Persons with functional or anatomic asplenia (sickle cell disease and other hemoglobinopathies; congenital or acquired asplenia, splenic dysfunction, or splenectomy);
- Immunocompromised persons with congenital or acquired immunodeficiencies (including B- [humoral] or T-lymphocyte deficiency, complement deficiencies [particularly C1, C2, C3, and C4 deficiencies], and phagocytic disorders other than chronic granulomatous disease); HIV infection; chronic renal failure; nephrotic syndrome; leukemias; lymphomas; Hodgkin's disease; generalized malignancy; diseases requiring treatment with immunosuppressive drugs, including long-term systemic corticosteroids or radiation therapy; solid organ transplantation; and multiple myeloma.

"Indirect vaccine effects (i.e., herd effects) have reduced pneumococcal infections among unvaccinated persons of all ages, including those aged Ó65 years, since introduction of the routine infant 7-valent pneumococcal conjugate vaccine (PCV7) immunization program in 2000," the guidelines authors write. "...Despite the major direct and indirect PCV7 effects, IPD remains an important cause of illness and death. An estimated 43,500 cases and 5,000 deaths occurred among persons of all ages in 2009; approximately 84% of IPD cases and nearly all deaths occurred in adults."

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