

Doug Campos-Outcalt,
MD, MPA

Department of Family and
Community Medicine,
University of Arizona College
of Medicine, Phoenix
dougco@u.arizona.edu

CDC recommendations expand vaccine indications

Children ages 5–18 should get the flu vaccine. Asthma patients and smokers should get the pneumococcal vaccine.

Highlights of the 2008 recommendations of the CDC's Advisory Committee on Immunization Practices (ACIP), detailed in the child and adult immunization schedules in the *MMWR* in January,^{1,2} include:

- an expansion of the age groups for whom an annual influenza vaccine is recommended;
- expanded indications for the pneumococcal polysaccharide vaccine;
- 2 new combination vaccines for children; and
- a second rotavirus vaccine, with revised recommendations to accommodate both vaccine products.

at high risk for complications of the flu. Included in that group are 5- to 18-year-olds who are on long-term aspirin therapy; have a chronic pulmonary disease, including asthma, or a cardiovascular, renal, hepatic, hematologic, or metabolic disorder; are immunosuppressed; or have a neurological or musculoskeletal disorder that alters respiratory function or the clearance of respiratory secretions. Children and adolescents who live with others at elevated risk—kids younger than 5 years, adults older than 50 years, or individuals with medical conditions that place them at high risk for severe influenza complications—should also be vaccinated.

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■ School-age children should get flu vaccine

Children and adolescents ages 5 through 18 years are now among those who should receive an annual flu vaccine. Previously, routine vaccination was recommended only for adults and children ages 6 months through 59 months.³

Because of the timing of vaccine purchase, ACIP recognizes that routine vaccination of 5- to 18-year-olds may not be possible in some settings until next year. Family physicians who are unable to fully incorporate this new recommendation in the 2008-2009 flu season should immunize children and adolescents who are

Pneumococcal vaccine: New indications, clarifications

Two new groups have been added to the list of people for whom the 23-valent pneumococcal polysaccharide vaccine (PPV23) is recommended: asthma patients and smokers. Smoking poses as great a risk for pneumococcal pneumonia as diabetes and other chronic illnesses that had already been noted as indications for the vaccine. The number needed to vaccinate to prevent 1 case of pneumonia in smokers is 10,000 for those between the ages of 18 to 44 years, and 4000 for those ages 45 to 64 years.

A second dose. Also in 2008, ACIP

clarified its dosing recommendations for PPV23: A second dose, given 5 years after the first, is recommended for those with immune suppression, sickle cell disease, or asplenia. Individuals who are 65 years of age or older should receive a second dose if they were vaccinated 5 or more years ago and were younger than 65 at the time of primary vaccination.

Not for all Native Americans. The recommendation for the use of PPV23 among the Native American population has changed, too.

Research showing high rates of invasive pneumococcal disease in Native American communities has been performed in only a few locations and cannot be generalized to all Native Americans. Therefore, ACIP has gone from recommending routine use of the vaccine among all Native Americans to a recommendation based on the same risks and age recommendations as the general population and, in communities with high rates of disease, on public health recommendations based on the incidence and epidemiology of disease.

■ Combination products may mean fewer injections

Two new combination vaccine products—Pentacel⁴ and Kinrix⁵—were approved last year. Both can reduce the number of injections required to complete the child immunization recommendations.

Pentacel combines 5 vaccines—diphtheria, tetanus, and pertussis (DTaP), inactivated poliovirus (IPV), and *Haemophilus influenzae* type b (Hib)—and is licensed for children 6 weeks through 4 years of age. Pentacel has a 4-dose schedule, with vaccine administration at 2, 4, 6, and 15 to 18 months of age. Technically, this 4-dose schedule would fulfill requirements for 4 doses of IPV. However, this could conflict with a state school immunization schedule that requires the last dose of IPV vaccine to be administered when the child is between the ages of 4 and 6 years.⁶

TABLE

Rotavirus vaccines: An administration guide

	ROTATEQ	ROTARIX
No. of doses	3	2
Recommended dosing schedule	2, 4, and 6 mo of age	2 and 4 mo of age
First dose	6–14 wk 6 d of age	
Dosing interval	≥4 wk	
Final dose	≤8 mo of age	

Source: Centers for Disease Control and Prevention. 2009.¹

Kinrix contains DTaP and IPV. The vaccine is indicated for use as the fifth dose of DTaP and the fourth dose of IPV in children 4 through 6 years of age, following a primary series using Infanrix (DTaP) and Pediarix (DTaP, hepatitis B, and IPV).

Rotavirus vaccines: Now there are 2

There are now 2 licensed rotavirus vaccines: RotaTeq was approved in 2006,⁷ and Rotarix in 2008.⁸ ACIP does not express a preference for either product, but has revised its recommendations for rotavirus vaccination to accommodate the new release. Both RotaTeq and Rotarix are live oral vaccines, but they differ in composition and schedule of administration. Rotarix should not be given to infants who are allergic to latex, as its oral applicator contains latex rubber.

Dosing requirements. RotaTeq is administered in a 3-dose series at ages 2, 4, and 6 months; Rotarix is given in a 2-dose series at 2 and 4 months of age (TABLE). The first dose of either vaccine should be administered to children between the ages of 6 weeks and 14 weeks, 6 days. (Previously, 12 weeks was the maximum age for the first dose of rotavirus vaccine.) Neither vaccine series should be initiated in infants who are 15 weeks of age or older. The minimum interval between doses is 4 weeks, and the final dose should be administered by the age of 8 months.

FAST TRACK

Children and adolescents who live with at-risk individuals should receive the flu vaccine without delay.

CONTINUED

It is best to complete the vaccine series with the same product. If the vaccine used initially is not available, the series can be completed with the other product, but the different number of doses required must be considered. If any dose in the series was RotaTeq or you are unable to determine which rotavirus vaccine was administered previously, a total of 3 doses should be given.

■ HPV and meningococcal vaccine clarification

Human papilloma virus vaccine. The HPV vaccine is recommended for all females ages 11 through 26 years, but ACIP has indicated that girls as young as 9 years may be vaccinated.¹

Three doses are required, with the second and third doses administered 2 and 6 months after the first. Because some providers had been administering the third dose at month 4, ACIP issued a clarification in 2008, noting that there should be a minimum of 24 weeks between the first and third dose.

MCV and MPSV. Meningococcal conjugate vaccine (MCV) is preferred over meningococcal polysaccharide vaccine (MPSV) for those 55 years of age or younger, although MPSV is an acceptable alternative. ACIP clarified recommendations for revaccination, as follows:

Individuals ages 11 to 55 years who were vaccinated with MPSV should

consider revaccination with MCV after 5 years, if the risk of meningococcal meningitis persists. Children ages 2 to 10 years should be revaccinated with MCV 3 years after receiving MPSV. ■

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FAST TRACK

The second and third doses of the HPV vaccine should be administered 2 and 6 months after the first, with at least 24 weeks between the first and third dose.

VASOMOTOR SYMPTOMS

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