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CDC: Older kids should get annual flu vaccine, too

Routine vaccination should include 5- to 18-year-olds and start this year, if possible

The Centers for Disease Control and Prevention (CDC) has made 2 significant changes to its annual recommendations for the prevention of influenza during the 2008-2009 flu season:¹

1. Annual vaccination is now recommended for all children ages 6 months through 18 years. (Last year, universal influenza vaccination was recommended only for children ages 6 months through 4 years.)

2. The live attenuated influenza vaccine (LAIV) can now be used starting at 2 years of age.

- have chronic pulmonary (including asthma), cardiovascular, renal, hepatic, hematological, or metabolic disorders;
- are immunosuppressed; or
- have disorders that alter respiratory functions or the handling of respiratory secretions.

Children who live in households with others who are at higher risk (children who are <5 years old, adults >50 years, and anyone with a medical condition that places him or her at high risk for severe influenza complications) should also be vaccinated.

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■ Vaccinate older children

The CDC now recommends that 5- to 18-year-olds receive the influenza vaccine annually, and that this routine vaccination start as soon as possible, but no later than the 2009-2010 flu season. In other words, if routine vaccination can be achieved this year it is encouraged, but the CDC recognizes that it may not be possible to achieve in some settings until next year.

If family physicians do not incorporate routine vaccination for those ages 5 to 18 this year, they should still provide it for those in this age group who are at high risk for influenza complications, including those who:

- are on long-term aspirin therapy;

■ LAIV is an option for even younger kids

Last year, the LAIV vaccine was licensed for children starting at age 5. Now, the LAIV can be given to healthy children starting at age 2, as well as to adolescents and adults through age 49. **TABLE 1** compares the LAIV with the trivalent influenza vaccine (TIV).

Because LAIV is an attenuated live virus vaccine, some children should not receive it, including those younger than 5 years of age with reactive airway disease (recurrent wheezing or recent wheezing); those with a medical condition that places them at high risk of influenza complications; and those younger than 2 years

of age. The TIV can be used in these children, starting at 6 months of age.

Regardless of whether a child receives LAIV or TIV, those younger than 9 years of age who are receiving influenza vaccine for the first time should receive 2 doses 4 weeks apart. If a child received only 1 dose in the first year, the following year he or she should receive 2 doses 4 weeks apart.

■ Coverage rates still need to improve

Influenza vaccine and antiviral agents continue to be underutilized. **TABLE 2** lists estimated coverage with influenza vaccine for specific groups for whom immunization is recommended. It is particularly important that coverage rates for health care workers—which remain below 50%—be improved. Health care workers are at high risk of exposure to influenza and pose a risk of disease transmission to their families, other staff members, and patients. Family physicians should ensure that they and their staff are vaccinated each year.

Missed opportunities. Many patients for whom influenza vaccine is recommended fail to receive the vaccine because of missed opportunities. Physicians should offer the vaccine starting in October (or as soon as the vaccine supply allows) and continue to offer and encourage it through the entire flu season. Peak influenza activity can occur as late as April and May and occurs after February on average of 1 in every 5 years.

■ Autism concerns persist among parents

Despite clear scientific evidence that neither vaccines nor thimerosal preservative cause autism, some parents remain concerned. Some states have passed laws prohibiting the use of any thimerosal-containing vaccines and some parents may request thimerosal-free vaccines. **TABLE 3** lists all the influenza vaccines and their thimerosal content.

TABLE 1

LAIV vs TIV: How the 2 compare		
	LAIV	TIV
Route of administration	Intranasal spray	Intramuscular injection
Type of vaccine	Live attenuated virus	Killed virus
Approved age	2-49 years	≥6 months
Interval between 2 doses recommended for children 6 months to 8 years who are receiving influenza vaccine for the first time	4 weeks	4 weeks
Use with other live virus vaccines	Simultaneously or separated by 4 weeks	No restrictions
Use with influenza antiviral medication	Wait 48 hours after last antiviral dose to administer LAIV; wait 2 weeks after LAIV to administer antivirals	No restrictions
Contraindications and precautions	Chronic illness Chronic aspirin therapy History of Guillain-Barre syndrome Pregnancy Caregiver to severely immune-suppressed individual	Anaphylactic hypersensitivity to eggs Moderate-to-severe illness (precaution)

LAIV, live attenuated influenza vaccine; TIV, trivalent influenza vaccine.

TABLE 2

Immunization is recommended, but what were the coverage rates?*	
POPULATION GROUP	COVERAGE
Age 6-23 months	32.2%
Age 2-4 years	37.9%
Age ≥65 years	65.6%
Pregnant women	13.4%
Health care workers	41.8%
Ages 18-64 years with high-risk conditions	35.3%

* Influenza vaccination coverage is for the most recent year surveyed (2005-06 or 2006-07).

■ Make use of antivirals

Two antiviral medications are licensed and approved for the treatment and prevention of influenza: oseltamivir (Tamiflu) and zanamivir (Relenza). Two others (amantadine and rimantadine) are

TABLE 3

Which vaccines contain thimerosal—and how much?

VACCINE	TRADE NAME	MANUFACTURER	HOW SUPPLIED	MERCURY CONTENT (MCG HG/0.5 ML DOSE)
TIV	Fluzone	Sanofi Pasteur	0.25-mL prefilled syringe	0
			0.5-mL prefilled syringe	0
			0.5-mL vial	0
			5-mL multidose vial	25
TIV	Fluvirin	Novartis Vaccines	5-mL multidose vial	25
			0.5-mL prefilled syringe	≤1
TIV	Fluarix	GlaxoSmithKline	0.5-mL prefilled syringe	≤1
TIV	FluLaval	GlaxoSmithKline	5-mL multidose vial	25
TIV	Afluria	CSL Biotherapies	0.5-mL prefilled syringe	0
			5-mL multidose vial	24.5
LAIV	FluMist	MedImmune	0.2-mL sprayer	0

TABLE 4

**Increased flu activity in the community?
 Consider antiviral prophylaxis**

- Individuals at high risk during the 2 weeks after influenza vaccination (after the second dose for children ages <9 years who have not previously been vaccinated)
- Individuals at high risk for whom influenza vaccine is contraindicated
- Family members or health care providers who are unvaccinated and are likely to have ongoing, close exposure to individuals at high risk, unvaccinated people, or infants who are <6 months of age
- High-risk individuals and their family members and close contacts, as well as health care workers, when circulating strains of influenza virus in the community are not matched with vaccine strains
- Individuals with immune deficiencies or those who might not respond to vaccination (eg, individuals infected with human immunodeficiency virus or with other immunosuppressed conditions, or those who are receiving immunosuppressive medications)
- Unvaccinated staff members and other individuals during a response to an outbreak in a closed institutional setting with residents at high risk (eg, extended-care facilities).

Note: Recommended antiviral medications (neuraminidase inhibitors) are not licensed for prophylaxis of children <1 year of age (oseltamivir) or <5 years of age (zanamivir).

licensed but not currently recommended due to the high rates of resistance that influenza has developed against them.

Oseltamivir is approved for the treatment and prophylaxis of influenza starting at 1 year of age.

Zanamivir is approved for the treat-

ment of influenza starting at 7 years of age and for prophylaxis starting at 5 years of age.

Treatment, if started within 48 hours of symptom onset, reduces the severity and length of infection and the length of infectiousness. Antiviral prophylaxis should be considered when there is increased influenza activity for those listed in **TABLE 4**.

Every bit helps

Each year, influenza kills, on average, 36,000 Americans and hospitalizes another 200,000. Much of this morbidity and mortality could be avoided with full utilization of influenza vaccines and antiviral medications. You can contribute to improved public health by assuring that your patients and staff are fully immunized, that office infection control practices are adhered to, and that antiviral prophylaxis is used when indicated. ■

Reference

1. Prevention and control of influenza. Recommendations of the Advisory Committee on Immunization Practices, 2008. *MMWR*;57(Early Release: July 17, 2008). Available at: <http://www.cdc.gov/mmwr/preview/mmwrhtml/rr57e717a1.htm>. Accessed August 25, 2008.