

The 2014-2015 Influenza Season

What You Need to Know

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A nasal spray vaccine is now preferred for children ages 2 through 8 years.



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As clinicians and the CDC prepare for the upcoming influenza season, many of the immunization recommendations remain unchanged from last season. Vaccination continues to be recommended for everyone ages 6 months and older. However, for the first time, a specific vaccine is preferred for children ages 2 through 8 years. Here's what you need to know about this change, as well as how to handle vaccination in patients who are, or might be, allergic to eggs.

USE LAIV FOR KIDS AGES 2 THROUGH 8 (IF AVAILABLE)

For the first time, the CDC's Advisory Committee on Immunization Practices (ACIP) has stated a preference for a specific influenza vaccine for a specific age-group. It recommends using the live attenuated influenza vaccine (LAIV), which is a nasal spray, for children ages 2 through 8 years.¹

A systematic review found evidence of increased efficacy of LAIV compared to inactivated influenza vaccine (IIV) in this age-group; both types of vaccine have similar rates of adverse reactions.² This increased effectiveness results in 46 fewer cases of confirmed influenza per 1,000 children vaccinated (number needed to treat, 24). Although the evi-

dence of LAIV's increased effectiveness was found for children ages 2 to 6 years, ACIP extended this recommendation through age 8 because this is the age through which clinicians need to consider two doses of vaccine for a child previously unvaccinated with the influenza vaccine. Children younger than 2 should receive IIV3 or IIV4.³

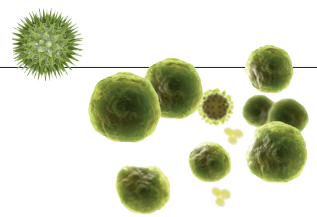
ACIP realizes that due to programmatic constraints it would be difficult to vaccinate all children with LAIV this year; the committee emphasizes that this recommendation should be implemented when feasible this year but no later than the 2015-2016 influenza season. IIV is effective in children and should be given if LAIV is not available or is contraindicated. Vaccination should not be delayed in the hopes of receiving a supply of LAIV if IIV is available.¹

LAIV should not be used in children younger than 2 or adults older than 49. This vaccine is contraindicated in children and adolescents who are taking chronic aspirin therapy, pregnant women, or persons who are immunosuppressed, have a history of egg allergy, or have taken influenza antiviral medications in the past 48 hours.¹ LAIV also is not recommended for children ages 2 through 4 years who have asthma or have had a wheezing episode in the past 12 months.¹

There are precautions for the use of LAIV in patients with chronic medical conditions that can

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place them at high risk for complications from influenza. These include chronic lung, heart, renal, neurologic, liver, blood, or metabolic disorders—particularly, asthma and diabetes.¹

WHICH VACCINE FOR PATIENTS WHO ARE ALLERGIC TO EGGS?

Two influenza vaccines are now available that are not prepared in embryonated eggs: recombinant influenza vaccine (RIV3) and cell culture–based inactivated influenza vaccine (ccIIV3). Both are trivalent products that contain antigens from two influenza A viruses and one influenza B virus; they were introduced in time for the 2013-2014 flu season. The RIV3 is considered egg-free but ccIIV3 is not, although the amount of egg protein in the latter is miniscule (estimated at 5×10^{-8} g/0.5 mL dose).¹ Neither product is licensed for use in children younger than 18, and RIV3 is licensed only for those ages 18 through 49.

Patients who experience only hives after egg exposure can receive any of the flu vaccines except LAIV—and only because of a lack of data on this product, not because it has been shown to be less safe than the other vaccines. Patients who are unsure if they have an egg allergy or who only get hives when they eat eggs should be observed for at least 30 minutes¹ following injection as a precaution. Those ages 18 through 49 who have a history of severe reactions to eggs should receive RIV3. Patients younger than 18 and older than 49 can receive IIV vaccines approved for their specific age-group.

Any patient who is severely allergic but who cannot receive an egg-free vaccine should be vaccinated by a clinician with experience managing severe allergic conditions. Although severe anaphylactic reactions to influenza vaccine are very rare, clinicians should be equipped and prepared to respond to a severe allergic reaction after providing influenza vaccine to anyone with a history of egg allergy.

ADDITIONAL TIPS AND RESOURCES

In addition to the LAIV, RIV3, and ccIIV3 vaccines described here, 10 other vaccines are available: five egg-based IIV3 products in standard-dose form, one IIV3 vaccine for intradermal use, one high-dose IIV3 product for

patients ages 65 or older, and three standard-dose IIV4 products. More details on each of these vaccines are available on the CDC website (www.cdc.gov/mmwr/preview/mmwrhtml/rr6207a1.htm?s_cid=rr6207a1_w#Tab1).

Regardless of which type of flu vaccine they receive, children ages 6 months through 8 years should receive two doses, at least four weeks apart, unless they received

- One dose during the 2013-2014 season, or
- Two or more doses of seasonal influenza vaccine since July 2010, or
- Two or more doses of seasonal influenza vaccine before July 2010 and at least one dose of monovalent H1N1 vaccine, or
- At least one dose of seasonal influenza vaccine prior to July 2010 and one or more after.

Vaccine effectiveness. The CDC estimated that vaccine effectiveness during the 2013-2014 flu season was 66%.³ While this degree of effectiveness is important for minimizing morbidity and mortality from influenza each year, it's important to appreciate the limitations of the vaccine and not rely on it as the only preventive intervention.

Other forms of prevention. We need to advise and practice good respiratory hygiene, frequent hand washing, self-isolation when sick, effective infection control practices at health care facilities, targeted early treatment with antivirals, and targeted pre- and postexposure antiviral chemoprevention. Details on each of these interventions, including recommendations on the use of antiviral medications, can be found on the CDC website (www.cdc.gov/flu). **CR**

REFERENCES

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