

Correspondence

Clinical pearls for H1N1 influenza vaccination

To the Editor:

The article by Rank and Li¹ was a wonderful and timely review of a topic that practicing allergist/immunologists need to be experts in so that we can provide care and advice to our patients and referring physicians. I do, however, disagree with the statements that “Those with fever should not be vaccinated until the fever resolves” and that a “strong contraindication” to influenza vaccination is a “current febrile illness.” The Advisory Committee on Immunization Practices of the Centers for Disease Control and Prevention (CDC) states that “Persons with moderate to severe acute febrile illness usually should not be vaccinated until their symptoms have abated.”² The CDC’s Guide to Vaccine Contraindications and Precautions does reiterate that patients with a “low grade fever with or without a mild illness” can be vaccinated with influenza vaccine and also states that febrile patients with moderate to severe illness “can be vaccinated as soon as they are recovering and no longer acutely ill.”³ Although the definition of a “low grade fever” remains unclear, it is clear that low-grade fevers and mild illnesses are not contraindications to influenza vaccination.

Rand and Li¹ recommend a “neat prick test and a 1:100 intradermal test.” Is the intradermal test necessary? James et al⁴ did not use intradermal tests, and the patients with egg allergy and a negative influenza vaccine skin prick test who received vaccine had no reactions; nor did 4 of 83 patients with egg allergy with a positive skin prick test to influenza vaccine. The irritant effect of intradermal testing with the 1:100 dose is 15% or higher. The question of whether testing to the 1:100 dose is necessary has been raised before and does need to be addressed.^{5,6}

As an addition to the clinical pearls provided in the article by Rand and Li,¹ the following are questions I have received from patients and referring doctors. The answers were all found on the CDC website at <http://www.cdc.gov>.

Question: Is an asthma exacerbation a contraindication to vaccination? No. “The antibody response among children at higher risk for influenza-related complications (e.g., children with chronic medical conditions) might be lower than those reported typically among healthy children. However, antibody responses among children with asthma are similar to those of healthy children and are not substantially altered during asthma exacerbations requiring short-term prednisone treatment.”²

Question: Do patients with asthma age 19 to 64 years need the pneumococcal vaccine? As of 2009, the CDC now recommends that patients age 19 to 64 years who smoke cigarettes and/or have asthma receive the pneumococcal vaccine. This is of even more relevance now, because “during the 20th century influenza pandemics, secondary bacterial pneumonia was an important

cause of illness and death and *Streptococcus pneumoniae* (pneumococcus) was reported as the most common etiology. During influenza outbreaks, pneumococcal vaccines may be useful in preventing secondary pneumococcal infections and reducing illness and death.”⁷

Question: Are patients with asthma on inhaled corticosteroids at risk of contracting influenza from close contacts who receive the live attenuated influenza vaccine (LAIV)? No. “Available data indicate that both children and adults vaccinated with LAIV can shed vaccine viruses after vaccination, although in lower amounts than occur typically with shedding of wild-type influenza viruses. In rare instances, shed vaccine viruses can be transmitted from vaccine recipients to unvaccinated persons. However, serious illnesses have not been reported among unvaccinated persons who have been infected inadvertently with vaccine viruses.”² Furthermore, “no preference is indicated for TIV use [vs LAIV] by persons who have close contact with persons with lesser degrees of immunosuppression (e.g., ... persons with asthma who take corticosteroids...)”²

Question: Is nasal congestion a contraindication to the LAIV? “If the vaccine recipient sneezes after administration, the dose should not be repeated. However, if nasal congestion is present that might impede delivery of the vaccine to the nasopharyngeal mucosa, deferral of administration should be considered until resolution of the illness, or TIV (trivalent influenza vaccine) should be administered instead. No data exist about concomitant use of nasal corticosteroids or other intranasal medications.”²

Gregory V. Marcotte, MD

From Asthma and Allergy Care of Delaware, Wilmington. E-mail: gvmarcotte@yahoo.com.

Disclosure of potential conflict of interest: G. V. Marcotte receives research support from Dyax.

REFERENCES

- Rank MA, Li JT. Clinical pearls for preventing, diagnosing, and treating seasonal and 2009 H1N1 influenza infection in patients with asthma. *J Allergy Clin Immunol* 2009;124:1123-6.
- Prevention and control of seasonal influenza with vaccines. *MMWR Recomm Rep* 2009;58:1-52.
- Guide to vaccine contraindications and precautions. Centers for Disease Control and Prevention. April 2009. Available at: <http://www.cdc.gov/vaccines/recs/vac-admin/downloads/contraindications-guide-508.pdf>.
- James JM, Zeiger RS, Lester MR, Fasano MB, Gern JE, Mansfield LE, et al. Safe administration of influenza vaccine to patients with egg allergy. *J Pediatr* 1998;133:624-8.
- Wood RA, Setse R, Halsey N. Irritant skin test reactions to common vaccines. *J Allergy Clin Immunol* 2007;120:478-81.
- Anolick RA, Spiegel W, Posner M, Jakabovics E. Influenza vaccine testing in egg sensitive patients [letter]. *Ann Allergy* 1992;68:9.
- Interim guidance for use of 23-valent pneumococcal polysaccharide vaccine during novel influenza A (H1N1) outbreak. Centers for Disease Control and Prevention. October 26, 2009. Available at: http://www.cdc.gov/h1n1flu/guidance/ppsv_h1n1.htm.

doi:10.1016/j.jaci.2010.01.028