Prevention and Control of Seasonal Influenza with Vaccines: Recommendations of the Advisory Committee on Immunization Practices (ACIP) — United States, 2014–15 Influenza Season

Weekly

August 15, 2014 / 63(32);691-697

Lisa A. Grohskopf, MD1, Sonja J. Olsen, PhD1, Leslie Z. Sokolow, MSc, MPH1, Joseph S. Bressee, MD1, Nancy J. Cox, PhD1, Karen R. Broder, MD2, Ruth A. Karron, MD3, Emmanuel B. Walter, MD4 (Author affiliations at end of text)

…Excerpt for One Dose or Two Algorithm….

Vaccine Dose Considerations for Children Aged 6 Months through 8 Years

Children aged 6 months through 8 years require 2 doses of influenza vaccine (administered ≥4 weeks apart) during their first season of vaccination to optimize immune response (10,11). In one study conducted over two seasons during which the influenza A(H1N1) vaccine virus strain did not change but the B antigen did change, unprimed children aged 10 through 24 months who received 1 dose of IIV during the fall of each season had similar responses to the unchanged A(H1N1) virus antigen and to the drifted A(H3N2) virus antigen, compared with children aged 6 through 24 months who received 2 doses of the same IIV during the latter season; however, the first group had significantly lower responses to the B antigen (12). In determining the appropriate number of doses, previous receipt of vaccine containing 2009 influenza A(H1N1) pandemic antigen (included in monovalent pandemic vaccine during 2009–10 and in seasonal influenza vaccines since the 2010–11 season) also should be considered. In addition, because the strains contained in the 2014–15 seasonal influenza vaccines are identical to those contained in the 2013–14 vaccines, only 1 dose is required for any child aged 6 months through 8 years who previously received ≥1 dose of 2013–14 seasonal influenza vaccine.

Two approaches are recommended for determination of the necessary doses for the 2014–15 season; both are acceptable. The first approach (Figure 1) considers only doses of seasonal influenza vaccine received since July 1, 2010. Where adequate vaccination history from before the 2010–11 season is available, the second approach (Figure 1 [footnote]) may be used.
FIGURE 1. Influenza vaccine dosing algorithm for children aged 6 months through 8 years — Advisory Committee on Immunization Practices, United States, 2014–15 influenza season*

* For simplicity, this algorithm takes into consideration only doses of seasonal influenza vaccine received since July 1, 2010, to determine the number of doses needed for the 2014–15 season. As an alternative approach in settings where vaccination history from before July 1, 2010, is available, if a child aged 6 months through 8 years is known to have received either 1) at least 1 dose of 2013–14 seasonal influenza vaccine, or 2) at least two seasonal influenza vaccines during any previous season, and at least 1 dose of a 2009(H1N1)–containing vaccine (i.e., seasonal vaccine since 2010–11 or the monovalent 2009[H1N1] vaccine), then the child needs only 1 dose for 2014–15. Using this approach, children aged 6 months through 8 years need only 1 dose of vaccine for 2014–15 if they have received any of the following: 1) at least 1 dose of 2013–14 seasonal influenza vaccine; or 2) 2 or more doses of seasonal influenza vaccine since July 1, 2010; or 3) 2 or more doses of seasonal influenza vaccine before July 1, 2010, and 1 or more doses of monovalent 2009(H1N1) vaccine; or 4) 1 or more doses of seasonal influenza vaccine before July 1, 2010, and 1 or more doses of seasonal influenza vaccine since July 1, 2010.
Children in this age group for whom one of these conditions is not met require 2 doses for 2014–15.

† Doses should be administered at least 4 weeks apart.

Alternate Text: The figure above is a flow chart detailing the influenza vaccine dosing algorithm for children aged 6 months through 8 years in the United States for the 2014-15 influenza season. Two approaches are recommended for determination of the necessary doses for the 2014-15 season; both are acceptable. The first approach considers only doses of seasonal influenza vaccine received since July 1, 2010. Where adequate vaccination history from before the 2010-11 season is available, the second approach may be used.