State of Alaska Epidemiology **Bulletin**

Department of Health and Social Services
William J. Streur Commissioner

3601 C Street, Suite 540
Anchorage, AK 99503 http://www.epi.Alaska.gov

Division of Public Health
Ward Hurlburt, MD, MPH CMO/Director

Local (907) 269-8000
24 Hour Emergency 1-800-478-0084

Editors:
Joe McLaughlin, MD, MPH
Louisa Castrodale, DVM, MPH

Bulletin No. 26 September 13, 2011

Influenza Vaccine Recommendations and Administration for 2011–12

Note: This Epidemiology *Bulletin* and the companion *Bulletin* No. 25, TIV and LAIV Influenza Vaccines for 2011–12,[1] provide **summary information only.** For complete information, consult the appropriate manufacturer package inserts http://www.fda.gov/BiologicsBloodVaccines/Vaccines/ApprovedProducts/UCM093833 and the recommendations of the Advisory Committee on Immunization Practices (ACIP) for the Prevention and Control of Influenza with Vaccines.[2,3]

Vaccine Strains and Recommendations for 2011–12

Vaccine strains for the 2011–12 season are unchanged from 2010–11.[3] Annual vaccination is recommended because postvaccination antibody titers decline over the course of a year.[3] Vaccination recommendations are unchanged from 2010–11 and are summarized below (Box).

Box. Summary of Influenza Vaccine Recommendations

- All persons aged ≥6 months should be vaccinated annually.
- When vaccine supply is limited, vaccination efforts should focus on delivering vaccination to persons who:
  - are aged 6 months through 4 years (59 months);
  - are aged ≥50 years;
  - have chronic pulmonary (including asthma), cardiovascular (except hypertension), renal, hepatic, cognitive, neurologic, hematologic or metabolic disorders (including diabetes mellitus);
  - are immunosuppressed (including immunosuppression caused by medications or HIV);
  - are or will be pregnant during the flu season (Oct–May);
  - are aged 6 mo to 18 yrs and receiving long-term aspirin therapy;
  - are residents of chronic-care facilities (e.g., nursing homes);
  - are American Indians or Alaska Natives;
  - are morbidly obese (body-mass index ≥40);
  - are health care personnel; and/or
  - are household contacts and/or caregivers of any of the following: children aged <5 yrs, adults aged ≥50 years, or persons with medical conditions that put them at higher risk for severe complications.

Recommendations for Persons Who Have or Report Egg Allergy

All vaccines should be administered where personnel and equipment for treatment of anaphylaxis are available.

- Persons able to eat lightly cooked (i.e., scrambled) eggs are unlikely to be egg-allergic; however, tolerance does not exclude the possibility of egg allergy. Vaccinate per usual protocol.[3] Egg-allergic persons who have experienced only hives or a less severe reaction can be vaccinated by a provider familiar with potential egg allergy manifestations; use TIV (ovalbumin <0.7µg/0.5mL) and observe for at least 30 minutes.[3]
- Persons who report reaction to eggs involving angioedema, respiratory distress, hypotension, nausea/vomiting or a reaction requiring epinephrine or EMS should be referred to a physician with expertise in managing allergic conditions.
- A previous severe allergic reaction (e.g., anaphylaxis) to influenza vaccine, regardless of suspected vaccine component, is a contraindication for influenza vaccination.

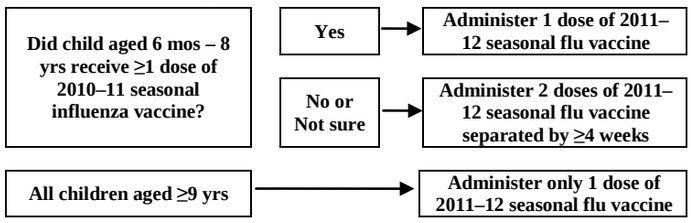
Additional Recommendations

1. Providers should begin vaccinating as soon as influenza vaccine is available and continue vaccinating throughout the flu season which sometimes peaks as late as March in Alaska (www.epi.alaska.gov/id/influenza/trends.htm).
2. Providers should carefully check the vaccine they use to ensure that the product age-group indication includes the age of the person being immunized (Table).

Vaccine Dosage for Children aged 6 Months through 8 Years

Because the 2011–12 vaccine strains are unchanged from 2010–11, children aged 6 months through 8 years who received at least one dose in 2010–11 require only one dose of the 2011–12 vaccine; all other children in this age-group require two doses (Figure).[3]

Figure. Vaccine Dosage for Children aged 6 Months – 8 Years



References

1. Alaska Section of Epidemiology. TIV and LAIV Influenza Vaccines for 2011–12 *Bulletin* No. 25, September 13, 2011. Available at: http://www.epi.alaska.gov/bulletins/docs/b2011_25.pdf
2. CDC. Prevention and Control of Influenza with Vaccines. *MMWR.* 2010;59(RR-8):1-62. Available at: www.cdc.gov/mmwr/pdf/rr/rr5908.pdf
3. CDC. Prevention and Control of Influenza with Vaccines. *MMWR,* 2011;60(33):1128-32. Available at: www.cdc.gov/mmwr/preview/mmwrhtml/mm6033a3.htm

Table. Approved Influenza Vaccines for Different Age-Groups — United States, 2011–12 Season

Vaccine*	Trade Name	Manufacturer	Presentation	Age-Group	Mercury content µg Hg/0.5 mL dose	Ovalbumin (egg protein) content µg /0.5 mL dose	# of Doses	Route
TIV	**Fluzone** (State-supplied vaccine is limited to persons aged 6 mos thru 18 yrs)	Sanofi Pasteur	0.25 mL prefilled syringe	6–35 mos	0	†	1 or 2§	IM¶
			0.5 mL prefilled syringe	≥36 mos				
			0.5 mL vial	≥36 mos				
			5.0 mL multidose vial	≥6 mos	25.0	†		
TIV	**Fluvirin**	Novartis	0.5 mL prefilled syringe	≥4 yrs	<1.0	≤1	1 or 2§	IM¶
			5.0 mL multidose vial		25.0			
TIV	**Fluarix**	GlaxoSmithKline	0.5 mL prefilled syringe	≥3 yrs	0	≤0.05	1 or 2§	IM¶
TIV	**FluLaval**	ID Biomedical (distributed by GlaxoSmithKline)	5.0 mL multidose vial	≥18 yrs	25.0	≤1	1	IM¶
TIV	**Afluria****	CSL Biotherapies (dist. by Merck)	0.5 mL prefilled syringe	≥9 yrs**	0	≤1	1**	IM¶
			5.0 mL multidose vial		24.5			
TIV High Dose††	**Fluzone High Dose**	Sanofi Pasteur	0.5 mL prefilled syringe	≥65 yrs	0	†	1	IM¶
TIV Intradermal	**Fluzone Intradermal**	Sanofi Pasteur	0.1 mL prefilled microinjection system	18-64 yrs	0	†	1	Intradermal
LAIV	**FluMist**§§ (State-supplied vaccine is limited to persons aged 2 yrs thru 18 yrs)	MedImmune	0.2 mL nasal sprayer, divided dose§§	2–49 yrs healthy, non-pregnant	0	Insufficient data available for use of LAIV in egg-allergic persons	1 or 2§	Intranasal

Abbreviations: TIV = Trivalent Inactivated Influenza Vaccine; LAIV = Live, Attenuated Influenza Vaccine (also trivalent); IM – intramuscular

* A 0.5 mL dose of TIV contains 15 µg each of *A/California/7/2009 (H1N1)-like*, *A/Perth/16/2009 (H3N2)-like*, and *B/Brisbane/60/2008-like* antigens. A 0.2 mL dose of LAIV contains $10^{6.5\text{-}7.5}$ fluorescent focal units of live attenuated influenza virus reassortants of each of the same three strains shown above (*) for TIV.

† Information not included in package insert but is available upon request from Sanofi Pasteur by telephone 1-800-822-2463 or e-mail MIS.Emails@sanofipasteur.com

§ Children aged 6 mos–8 yrs who did not receive a seasonal influenza vaccine during 2010-11 should receive 2 doses of 2011-12 influenza vaccine, spaced ≥4 wks. Children aged 6 mos–8 yrs who received ≥1 dose of seasonal influenza vaccine during 2010-11 require 1 dose of 2011-12 influenza vaccine.

¶ For adults and older children, the recommended vaccination site is the deltoid muscle. The preferred site for infants and young children is the anterolateral aspect of the thigh.

** Afluria is approved, per package insert, for persons aged ≥5 years, however, the ACIP recommends that Afluria not be administered to children aged 6 mos–8 yrs because of an increased report of febrile reactions in this age group. If no other age-appropriate, licensed inactivated seasonal influenza vaccine is available for a child 5–8 yrs who has a medical condition that increases the child's risk for influenza complications, Afluria can be used; however, providers should discuss with the parents or caregivers the benefits and risks of influenza vaccination with Afluria before administering this vaccine. Afluria may be used in persons aged ≥9 years.

†† Trivalent inactivated vaccine high dose: A 0.5 mL dose contains 60 µg each of the same three strains shown above (*).

§§ FluMist is shipped refrigerated and, after receipt at shipping destination, is stored in the refrigerator at 35°F–46°F (2°C–8°C). The dose is 0.2 mL, divided equally between each nostril. FluMist should not be administered to persons with asthma. Providers should carefully screen children for asthma or wheezing. (See package insert for additional information.).