

MODEL STANDING ORDERS

Inactivated Seasonal Influenza Vaccine (TIV)
Trivalent Types A and B

These model standing orders are current as of October 2009. They should be reviewed carefully against the most current recommendations and may be revised by the clinician signing them.

Administer influenza vaccine to any person who wishes to reduce the likelihood of becoming ill with influenza or of transmitting influenza to others should they become infected.

Seasonal influenza vaccine is especially recommended for persons in the following groups.

I. Persons at Increased Risk for Influenza-Related Complications:

1. All children 6 months through 18 years of age.
2. All persons ≥ 50 years of age.
3. Persons 6 months - 18 years of age who are receiving long-term aspirin therapy.
4. Women who will be pregnant during influenza season.
5. Persons ≥ 6 months of age who have:
 - Chronic pulmonary (including asthma) or cardiovascular (except hypertension), renal, hepatic, neurological/neuromuscular, hematologic, or metabolic disorders (including diabetes mellitus);
 - Immunodeficiency (including immunodeficiency caused by medications or HIV);
 - Any condition (e.g., cognitive dysfunction, spinal cord injuries, seizure disorders, or other neuromuscular disorders) that can compromise respiratory function or the handling of respiratory secretions or that can increase the risk of aspiration.
6. Residents of nursing homes and other chronic-care facilities.

II. Persons Who Can Transmit Influenza to Persons at High Risk:

1. Health care personnel, employees of assisted living facilities, people who provide home care to persons at risk, medical emergency response workers, and students in these professions.
2. Household contacts (including children) and caregivers of children aged < 5 years of age and adults ≥ 50 years of age.
3. Healthy household contacts (including children) and caregivers of persons with medical conditions that put them at higher risk for severe complications from influenza.

III. Persons at increased risk of exposure to influenza:

1. Persons who provide essential community services.
2. Students and other persons in institutional settings (e.g., dormitories).
3. Certain travelers.

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Date

ORDER:

1. Provide patient, parent or legal representative with a copy of the Vaccine Information Statement (VIS) and answer any questions. VIS's in English and other languages are available from the MIP and online at <http://www.immunize.org/vis>.
2. Screen for contraindications according to Table 1.
3. Administer TIV intramuscularly (IM), according to the recommended age-specific dose and schedule (Table 2). Administer IM vaccines at a 90⁰ angle with 22-25-gauge needle. The needle length for IM injections depends upon the age, gender, and/or weight of the vaccine recipient (see Table 1 below). **Always check the package insert prior to administration of any vaccine.**

Table 1. Needle Length and Injection Site for IM Injection

6 month – 18 Years of Age		
Age	Needle Length	Injection Site
Infants 6 - 12 months)	1”	Anterolateral thigh
Toddlers (12 months – 24 months)	1” – 1¼ ”	Anterolateral thigh (preferred)
	5/8” – 1”	Deltoid
Children (3 – 18 y/o)	5/8”* – 1”	Deltoid (preferred)
	1” – 1¼ “	Anterolateral thigh
Adults 19 Years of Age and Older		
Sex/Weight	Needle Length	Injection Site
Male and female < 130 lbs (< 60 kg)	1”	Deltoid
Female 130 – 200 lbs (60-90 kg)	1” – 1 ½ “	Deltoid
Male 130 – 260 lbs (60 – 118 kg)	1½”	Deltoid
Female > 200 lbs (>90 kg)	1½”	Deltoid
Male > 260 lbs (> 118 kg)	1½”	Deltoid

* A 5/8” needle may be used only if the skin is stretched tight, the subcutaneous tissue is not bunched, and the injection is made at a 90-degree angle.

4. Shake the vial well before withdrawing and shake the prefilled syringe well before administering.
5. Administer inactivated seasonal influenza vaccine simultaneously with, or any time before after, all other live and inactivated vaccines indicated, including H1N1 influenza vaccine.
6. If possible, observe patient for an allergic reaction for 15 - 20 minutes after administering vaccine.
7. Facilities and personnel should be available for treating immediate hypersensitivity reactions.
8. Report clinically significant adverse events to the Vaccine Adverse Event Reporting System (VAERS)

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Date

at 1-800-822-7967 or <http://www.vaers.hhs.gov/>.

9. See the MIP document *General Protocols for Standing Orders* for further recommendations and requirements regarding vaccine administration, documentation and consent.

Table 1. Contraindications and Precautions to Inactivated Influenza Vaccine

Valid Contraindications for Inactivated Influenza Vaccine	Invalid Contraindications (Give Inactivated Influenza Vaccine)
Anaphylactic reaction to a previous dose of influenza vaccine; chicken eggs ¹ or any other component of the vaccine (see package insert for specific components) ² Anaphylactic reaction to latex: FLUARIX is the only the formulation of influenza vaccine that contains latex.	Mild illness with or without fever
Precaution to influenza vaccine: Moderate to severe acute febrile illness (temporary precaution). Guillain-Barré syndrome (GBS) \leq 6 weeks of receiving a dose of influenza vaccine. ³	Non-anaphylactic allergy to any component of the vaccine
	HIV infection ⁴
	Pregnancy ⁵ or breast feeding
	Treatment with warfarin (Coumadin), theophylline, phenytoin, or aminophylline ⁶
	Anticoagulation or bleeding disorder ⁷

¹ Asking persons if they can eat eggs without adverse effects is a reasonable way to determine who might be at risk for an allergic reaction.

² Refer persons with a history of anaphylaxis to a vaccine component, but who are at risk for complications from influenza, to their health care provider for evaluation, desensitization and possible administration of influenza vaccine. Protocols have been developed for safely administering influenza vaccine to persons with egg allergies.

³ It may be prudent to avoid influenza vaccination of persons who are not at high risk of complications from influenza and who have experienced GBS within 6 weeks of a previous dose of influenza vaccine. As an alternative, consider antiviral chemoprophylaxis for these persons.

⁴ Because influenza can result in serious illness, *vaccination will benefit many HIV-infected patients, including HIV-infected pregnant women.* Vaccine may not induce protective antibodies in patients with advanced disease. A second dose during the same flu season *does not* improve immune response in these patients.

⁵ Pregnant women have an increased risk for hospitalization due to complications from influenza. No adverse fetal effects have been associated with influenza vaccine. **TIV can be administered in any trimester.**

⁶ Although flu vaccine can inhibit the clearance of warfarin, theophylline, phenytoin, and aminophylline, studies show no adverse clinical effects. High-risk patients who take these medications *should* receive flu vaccine.

⁷ Minimize the risk of bleeding after an IM injection in these patients by administering the vaccine immediately after the patient's receipt of replacement factor. Use a 23-gauge (or smaller) needle and immediately apply direct pressure to the vaccination site for \geq 2 minutes.

Table 2. Inactivated influenza vaccine dosage, by age group - United States

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Date

Age Group	Dose	No. of Doses
6 – 35 months	0.25 mL	1 or 2 ^{1,2}
3 – 8 years	0.5 mL	1 or 2 ^{1,2}
≥ 9 years	0.5 mL	1

¹Children < 9 years of age who are receiving influenza vaccine for the first time should receive 2 doses, ≥ 1 month apart. Administer the 2nd dose before the onset of flu season, if possible.

²Administer 2 doses for children aged 6 months – 8 years who received influenza vaccine (either TIV or LAIV) for the first time in the 2008-2009 season, but who received only one dose that season. All other children who received 1 or more doses in any previous season should receive only 1 dose in 2009 -2010.

Table 3. Approved Inactivated Influenza Vaccines (TIV) for Different Age Groups

Trade Name	Manufacturer	Dose/ Presentation	Thimerosal Content (mcg Hg/0.5 mL dose)	Age Group
Fluzone® Inactivated	sanofi pasteur 800-822-2463	0.25 mL prefilled syringe	0	6-35 mos
		0.5 mL prefilled syringe	0	≥ 36 mos
		0.5 mL vial	0	≥ 36 mos
		5.0 mL multidose vial	25	≥ 6 mos
Fluvirin® Inactivated	Novartis 800-244-7668	5.0 mL multidose vial	24.5	≥ 4 yrs
Fluarix®, Inactivated Flulaval®, Inactivated	GlaxoSmithKline 866-475-8222	0.5 mL prefilled syringe	< 1.0	≥ 18 yrs
		5.0 mL multidose vial	25	≥ 18 yrs
Afluria®, Inactivated	CSL Biotherapies 888-435-8633	0.5 mL prefilled syringe	0	≥ 18 yrs
		5.0 mL multidose vial	25	≥ 18 yrs

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