



PHYSICIANS' BULLETIN

August 1998

"Focusing on Families as Our Customers"

No. 415

1998-99 Flu Immunization Recommendations Issued

Note: Medicare B reimburses for influenza vaccines.

The recommended vaccine for the coming flu season contains protection against A/Beijing/262/95-like (H1N1), A/Sydney/5/97-like (H3N2), and B/Beijing/184/93-like hemagglutinin antigens. For the B/Beijing/184/93-like antigen, U.S. manufacturers will use the antigenically equivalent strain B/Harbin/07/94 because of its growth properties. Although the current vaccine can contain one or more antigens used in previous years, immunity declines during the year following vaccination. Therefore, a history of vaccination for the previous season does not preclude the need to be revaccinated.

Influenza vaccine is strongly recommended for anyone ≥6 months of age who, because of age or underlying medical condition, is at increased risk for complications of influenza. Health care workers and others (including household members) in close contact with high-risk groups also should be vaccinated. See groups below.

Groups at Increased Risk

Specifically, the following groups should be encouraged to receive protection:

1. Persons ≥65 years of age (County Health and Human Services will follow California legislative guidelines and provide state-supplied vaccine to persons ≥60 years);

2. Residents of nursing homes and other chronic-care facilities;
3. Adults and children with chronic disorders of the pulmonary or cardiovascular systems, including children with asthma;
4. Adults and children who have required regular medical follow-up or hospitalization during the preceding year because of chronic metabolic diseases (including diabetes mellitus), renal dysfunction, hemoglobinopathies (including anemia) or immunosuppression (including immunosuppression caused by medications);
5. Women who will be in the second or third trimester of pregnancy during the influenza season; and,
6. Children and teenagers (6 months to 18 years) who are receiving long-term aspirin therapy.

Groups That Can Transmit Influenza to Persons at High Risk

The following groups also should be encouraged to receive vaccine:

1. Physicians, nurses and other personnel in both hospital and outpatient care settings;
2. Employees of nursing homes and chronic-care facilities who have contact with patients or residents;
3. Providers of home health care to persons at high risk (e.g., visiting

- nurses, volunteer workers); and,
4. Household members (including children) of persons in high-risk groups.

Other Groups

Because influenza can result in serious illness and complications, many HIV-infected patients will benefit from influenza vaccination since it may result in the production of increased antibody titers. Administration of influenza vaccine is considered safe at any stage of pregnancy. Influenza vaccine does not affect the safety of breastfeeding for mothers or infants. Breastfeeding does not adversely affect immune response and is not a contraindication for vaccination. Physicians should consider influenza vaccine for persons traveling to the tropics at any time of the year or to the Southern Hemisphere from April to September. Persons who provide essential community services should be considered for vaccination to minimize disruption of essential activities during influenza outbreaks. Additionally, anyone who wishes to reduce his or her risk of becoming ill with influenza can be immunized.

Who Should Not Be Immunized

1. Persons known to have anaphylactic hypersensitivity to eggs (see Side Effects on back). However, those who also are at

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higher risk for complications of influenza may benefit from vaccine after appropriate allergy evaluation and desensitization.

- Adults with acute febrile illnesses usually should not be vaccinated until their symptoms have abated. However, minor illnesses with or without fever should not contraindicate flu vaccine, particularly among children with a mild upper respiratory tract infection or allergic rhinitis.

Side Effects and Adverse Reactions

Because influenza vaccine contains only noninfectious viruses, it cannot cause influenza. Respiratory disease after vaccination represents coincidental illness unrelated to influenza vaccination. The most frequent side effect of vaccination is soreness at the vaccination site that lasts up to 2 days. These local reactions generally are mild and rarely interfere with the ability to conduct usual daily activities. In addition, two types of systemic reactions have occurred:

- Fever, malaise, myalgia, and other systemic symptoms can occur following vaccination and most often affect persons who have had no exposure to the influenza virus antigens in the vaccine (e.g., young children). These reactions begin 6 to 12 hours after vaccination and can persist for 1 or 2 days. Recent placebo controlled trials suggest that among elderly persons and healthy young adults, split-virus influenza vaccine is not associated with higher rates of systemic symptoms (e.g., fever, malaise, myalgia, and headache) when compared with placebo injections.
- Immediate, presumably allergic, reactions (such as hives, angioedema, allergic asthma, or systemic anaphylaxis) rarely occur after influenza vaccination. These reactions probably result from sensitivity to some vaccine compo-

nent, most likely residual egg protein. The protocol for vaccination developed by Murphy and Strunk (*Journal of Pediatrics* 1985; 106:931-3) may be considered for patients with egg allergies and medical conditions that place them at increased risk of influenza infection or its complications.

Timing of Influenza Vaccine Activities

Beginning each September (when vaccine for the upcoming influenza season becomes available) persons at high risk who are seen by health-care providers for routine care or as a result of hospitalization should be offered influenza vaccine. Opportunities to vaccinate persons at high risk for complications of influenza should not be missed.

Physicians should note that the optimal time for organized vaccination campaigns for persons in high-risk groups is the period from the beginning of October through mid-November. In the United States, influenza activity generally peaks between late December and early March. High levels of influenza activity infrequently occur in the contiguous 48 states before December.

Administering vaccine too far in advance of the influenza season should be avoided in facilities, such as nursing homes, because antibody levels might begin to decline within a few months of vaccination. Vaccination programs can be undertaken as soon as current vaccine is available if regional influenza activity is expected to begin earlier than December.

Children <9 years of age who have not been vaccinated previously should receive two doses of vaccine at least 1 month apart to maximize the likelihood of a satisfactory antibody response to all three vaccine antigens. The second dose should be administered before December, if

possible. Vaccine should be offered to both children and adults up to and even after influenza virus activity is documented in a community.

Amantadine and Rimantadine, Antiviral Agents for Influenza A

These two chemically related drugs interfere with the replication cycle of type A (but not type B) influenza viruses. They can be used prophylactically or therapeutically. As with all drugs, they may cause adverse reactions in some persons.

Prophylactic Use: When administered prophylactically to healthy adults or children before and throughout the epidemic period, both drugs are approximately 70-90 percent effective in preventing illness caused by naturally occurring strains of type A influenza viruses.

Therapeutic Use: In otherwise healthy adults, amantadine and rimantadine can reduce the severity and duration of signs and symptoms of influenza A illness when administered within 48 hours of illness onset.

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The *Physicians' Bulletin* is published on an as-needed basis by the County of San Diego Health and Human Services Agency to provide updated information on health issues of concern to San Diego County's medical community.

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Editor

Lyn Wallis
(619) 515-6525
P.O. Box 85222, P-511A
San Diego, CA 92186-5222

Recommended Influenza Vaccine* Dose By Age, 1998-99

Age Group #	Product †	Dosage	No. of Doses	Route §
6-35 months	Split virus only	0.25 mL	1 or 2 ¶	IM **
3-8 years	Split virus only	0.50 mL	1 or 2 ¶	IM
9-12 years	Split virus only	0.50 mL	1	IM
>12 years	Whole or split virus	0.50 mL	1	IM

* Contains 15µg each of A/Beijing/262/95-like (H1N1), A/Sydney/5/97-like (H3N2), and B/Beijing/184/93-like hemagglutinin antigens in each 0.5mL. For the B/Beijing/184/93-like antigen, U.S. manufacturers will use the antigenically equivalent strain B/Harbin/07/94 because of its growth properties. Manufacturers include: Connaught Laboratories, Inc. (Fluzone* whole or split); Evans Medical Ltd. (an affiliate of Medeva Pharmaceuticals, Inc.) (Fluvirin™ purified surface antigen vaccine); Parkedale Pharmaceuticals, Inc. (Fluogen* split); and Wyeth-Ayerst Laboratories (Flushield™ split). For further product information call Connaught, (800) 822-2463; Evans/Medeva, (800) 234-5535; Parkedale, (888) 358-6436; or Wyeth-Ayerst, (800) 358-7443.

Simultaneous administration at separate sites of influenza, pneumococcal, Td or childhood vaccines should not lessen immunogenicity or enhance adverse reactions.

† Because of the lower potential for causing febrile reactions, only split-virus vaccines should be used for children. They may be labeled as "split," "subvirion," or "purified-surface-antigen" vaccine. Immunogenicity and side effects of split- and whole-virus vaccines are similar among adults when administered at the recommended dosage.

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

¶ Two doses administered at least 1 month apart are recommended for children <9 years of age who are receiving influenza vaccine for the first time.

** Intramuscular.

The current guidelines for antiviral agents, including a recommended dosage chart, are in the May 1, 1998, *Morbidity and Mortality Weekly Report (MMWR)* on influenza. See "Resources" below.

Influenza-Related Resources

The Centers for Disease Control & Prevention's 1998 report, *Prevention & Control of Influenza, Recommendations of the Advisory Committee on Immunization Practices (ACIP)*, (MMWR Volume 47, No. RR-6) includes information on the disease, vaccine, and related issues, such as the use (including a recommended dosage chart) of antiviral agents amantadine and rimantadine in preventing and treating influenza. **For a copy of the *Prevention & Control of Influenza* report, please call (619) 692-8661.**

The following is a list of World Wide Web sites for accessing information and promotional materials on influenza, influenza vaccine and related topics:

www.cdc.gov: In addition to the CDC's influenza report mentioned above, this site also contains weekly influenza surveillance reports beginning in October. This site has a wide variety of links to other sites with fact sheets for providers and patients.

www.cmri-ca.org: California Medical Review, Inc., the Medicare quality assurance organization, provides specific information on Medicare billing, including roster billing. "Immunization Tip Sheets for Providers" detail how to promote and organize flu and pneumococcal vaccines in different settings. Free pamphlets and posters for California Medicare providers can be ordered via Web or fax (877-364-5555). There are also many links to other sites with pertinent information.

Influenza Vaccine Campaign Offers Opportunity to Provide Other Needed Adult Vaccines

Seniors and others at high risk of complications from influenza visit medical care providers each fall to

receive influenza vaccine. Medical care providers should use this opportunity to evaluate these adults for other needed vaccines as well.

Examples are: pneumococcal vaccine (to protect high-risk groups against the 23 strains of the most common cause of bacterial pneumonia in adults); tetanus and diphtheria vaccine (booster doses are needed routinely every 10 years and some seniors may never have received even the basic series since routine immunization only began 50 years ago); and measles, mumps and rubella vaccines (two doses are recommended routinely for persons born since 1957, and those without a verified record of MMR vaccination should be considered susceptible and also be immunized).

Physicians are urged to capitalize on office visits by those at risk for influenza to provide all needed vaccines. To receive a free chart on adult vaccine recommendations, call the Immunization Program at (619) 692-8661.