

## PREPARATIONS FOR THE 2002–2003 INFLUENZA EPIDEMIC

**N**OW THAT consultations for third-degree sunburns and epidemic summer vomiting disease are dwindling, our thoughts turn toward the unique pestilences associated with the coming winter season. This issue of the *CD Summary* will focus upon recommendations to minimize morbidity and mortality from influenza among Oregonians.

### THIS YEAR'S SPECULATIONS

Barring the appearance of new mutants in the coming weeks, the 2002–2003 season should be a repeat of the last two—an “average” one. Current levels of influenza transmission in the Southern Hemisphere indicate a likely repeat of last season with H3N2 strains predominating and quite possibly fewer B/Hong Kong/330/2001-like viruses. The vaccine this year contains the same type A subtype antigens as last year: A/Moscow/10/99(H3N2)-like and A/New Caledonia/20/99(H1N1)-like. The type B component will again be different: a B/Hong Kong/330/2001-like strain.\* As usual, any hoarded cache of old vaccines should be properly discarded.

### VACCINE DELAYS

As this issue crawls into bed, there are no ominous predictions of vaccine scarcity. It is anticipated that some 92–97 million doses of vaccine will be produced, compared with 87 million last season. The majority of doses should be distributed by the end of October. It will still be necessary to reserve vaccine in October for those at highest priority and immunize the remainder of patients in November or December.

### VACCINATIONS IN OCTOBER AND NOVEMBER

The following should be immunized in October or early November, regardless of the setting:

#### 1. Those at increased risk for influenza-related complications:

- persons 65 years of age and older;#
- residents of nursing homes or chronic care facilities;

\* New this season.

- those with chronic pulmonary or cardiovascular disease, including asthma;
- those with chronic metabolic diseases such as diabetes, renal disease, hemoglobinopathies or immune dysfunction (including immunosuppression caused by medications or by HIV);
- children under 19 who are receiving long-term aspirin therapy (and would therefore be at risk for Reye syndrome);
- women who will be in the second or third trimester of pregnancy during the influenza season;
- healthy children 6–23 months old.\*

#### 2. Persons at increased risk of exposing the above groups to influenza virus:

- health-care workers, including employees and volunteers;
- household contacts, including those of infants <6 months of age who are not eligible for influenza vaccine;\*

#### 3. Children 6 months to <9 years of age receiving influenza vaccine for the first time.

### VACCINATIONS IN NOVEMBER AND LATER

Once those at high risk of complications from influenza and their contacts have been fully vaccinated in October and early November, attention may be directed to those healthy persons 50–64 years of age and all other healthy persons wishing to minimize their risk of acquiring influenza either at home or while traveling.

Vaccinations of healthy persons may continue through December and into early January even if influenza activity has been confirmed within the community. Antivirals may be employed during the 10–14 days required for development of host immunity.

### TIPS ON VACCINE USAGE

The intramuscular route is recommended. Adults and older children should be vaccinated in the deltoid muscle using a needle length of one inch or more to ensure sufficient penetration. Infants and young children should be vaccinated in the anterolateral aspect of

the thigh. For children under 13 years of age only split-virus vaccines should be used, due to their decreased potential for causing febrile reactions. The vaccines might be labeled as “split,” “subvirion,” or “purified-surface-antigen”. Immunogenicity and side effects of split- and whole-virus vaccines are similar among adults when vaccines are administered at the recommended dosage.

Doses by age group are as follows:

- 6–35 months old: 0.25 mL (split)
- 3–12 years old: 0.5 mL (split)
- 13 years and older: 0.5 mL

Among previously unvaccinated children <9 years old, two doses must be administered at least one month apart for satisfactory antibody response. If possible, the second dose should be administered before December. A protective level of antibodies develops after a minimum of 10–14 days. Antiviral drugs may be provided to confer protection during this interval if exposure is likely.

FDA approvals for the vaccines do vary so be sure to match the appropriate vaccine to the patient's age. Two are currently licensed for those 6 months of age and older: Flushield® (split) from Wyeth Laboratories and Fluzone® (split) from Aventis Pasteur. The third licensed vaccine, Fluvirin® (purified-surface-antigen), from Evans Vaccines, is labeled in the US only for use among those at least 4 years old.

### VACCINE REACTIONS

The most frequent side effect of vaccination is mild soreness at the vaccination site, affecting 10–64% of patients and lasting up to two days. Fever, malaise, myalgia and other systemic symptoms can occur, usually among those who have not been vaccinated against influenza before. These reactions usually begin six to twelve hours after vaccination and persist for one or two days. And of course, immediate hypersensitivity reactions can occur. These reactions include hives, angioedema, allergic asthma or anaphylaxis, and are usually due to allergies to egg protein.

# This group also might be offered vaccination in September, if available, when seen for routine care or during hospitalization to avoid missed opportunities for vaccination.



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### VACCINE CONTRAINDICATIONS

Vaccine should not be administered to people who are allergic to eggs or egg protein, without appropriate medical evaluation and possible desensitization. Existing data, though limited, suggest that the benefits of vaccination justify the yearly vaccination of patients at high risk for influenza even if they have experienced Guillain-Barré syndrome within six weeks of previous influenza vaccination. Alternatively, providers may want to consider the use of antiviral chemoprophylaxis in these patients.

### OTHER VACCINATIONS

As always, providers should assess a patient's immunization history, and take action to bring the patient up-to-date. Since there is some overlap in the groups for which pneumococcal and influenza vaccination are recommended, it is particularly important to consider the need for concurrent immunization with pneumococcal vaccine. Both vaccines can be given at the same time in different sites without increasing side effects. And influenza vaccine can be given concurrently with other routine childhood and adult vaccines.

### ANTIVIRALS

Antiviral drugs for influenza are an adjunct to influenza vaccine for controlling and preventing influenza. However,

these agents are not a substitute for vaccination. Four licensed influenza antiviral agents are currently available in the United States: amantadine, rimantadine, zanamivir, and oseltamivir.

Amantadine and rimantadine are chemically-related antiviral drugs known as adamantanes, with activity against influenza A but not influenza B viruses. Amantadine is approved for treatment and chemoprophylaxis of influenza A among adults and children aged  $\geq 1$  year. Rimantadine was approved in 1993 for treatment and chemoprophylaxis of influenza A among adults. Although rimantadine is approved only for chemoprophylaxis among children, certain experts in the management of influenza also consider it appropriate for treatment of influenza A in children.

Zanamivir and oseltamivir are chemically-related antiviral drugs known as neuraminidase inhibitors, with activity against both influenza A and B viruses. Both zanamivir and oseltamivir were approved in 1999 for treating uncomplicated influenza. Zanamivir is approved for treating persons aged  $\geq 7$  years, and oseltamivir is approved for treatment of persons aged  $\geq 1$  year. In 2000, oseltamivir was also approved for chemoprophylaxis of influenza among persons aged  $\geq 13$  years.

### Flu Surveillance Opens

BEGINNING October 1, 2002 the Oregon State Public Health Lab will begin accepting specimens of suspected epidemic catarrh for viral culture to rule out influenza without charge. Throat wash kits will be avail-

able from the OSPLH (503/229-5882), or from your local health department. Lab slips should be well marked "rule out influenza" and include a legible provider name and correct ten-digit phone number. Specimens should be collected within 3 days of clinical onset and not later than 5 days after onset from

### What is SafeNet?

SafeNet is the state's Maternal and Child Health hotline. SafeNet is designed to link low-income Oregon residents with health care services (including immunizations) in their communities, and much more.

What you can do for SafeNet?

- Fax information about your immunization clinics.
- Let SafeNet know if you have Thimerosal-free vaccine available

What can SafeNet do for you?

- Centralize information about immunization services.
- Help you find an immunization service for your patients if you do not offer immunizations.

Call 1-800-SafeNet (503/723-3638) or visit our web site: [www.healthoregon.org/imm/safenet.htm](http://www.healthoregon.org/imm/safenet.htm)

### ADDITIONAL INFO

The complete recommendations of the Advisory Committee on Immunization Practices can be found on our website. A world of discovery awaits your visit at <http://www.oshd.org/acd/docs/influenza.htm>. Information about clinics administering vaccine can be obtained by dialing 1-800-SAFENET.

Happy vaccinating. And may this be another average year for influenza.

patients who present with compatible illness, viz., temperature of 38.3 degrees C or more, cough, myalgia, and two or more of the following: headache, sore throat, rhinorrhea, malaise, chills, prostration. Specimens should be kept cool (but not frozen). If they will be more than 24 hours in transit, use a cold pack.