



# THE PUBLIC'S HEALTH

Newsletter for Medical Professionals in Los Angeles County

Volume 8 • Number 8

September 2008

## New Influenza Recommendations Target Children & Adolescents

### BACKGROUND

Influenza (flu) is a common and deadly contagious viral disease. In the United States every year, an average of approximately 36,000 deaths and 226,000 hospitalizations are associated with influenza epidemics. Typically, flu epidemics occur during the late fall through early spring seasons but influenza activity can occur as late as April or May. Rates of serious illness and death are highest among persons aged >65 years, children aged <2 years, pregnant women, and persons of any age who have medical conditions that place them at increased risk for complications from influenza.

Influenza illness is characterized by abrupt onset of respiratory signs and symptoms (e.g., fever, myalgia, headache, malaise, nonproductive cough, sore throat, and rhinitis). Among children, otitis media, nausea, and vomiting also are commonly reported with influenza illness. Influenza infections may lead to viral pneumonia; exacerbate underlying medical conditions (e.g., pulmonary or cardiac disease); lead to secondary bacterial (pneumococcal) pneumonia, sinusitis, or otitis media.

Influenza viruses are spread from person to person primarily through large-particle respiratory droplet transmission (e.g. when an infected person coughs or sneezes). Contact with respiratory-droplet contaminated surfaces is another possible source of transmission. The typical incubation period for influenza is 1-4 days (average: 2 days). Adults shed influenza virus from the day before symptoms begin through 5-10 days after illness onset. Young children also might shed virus several days before illness onset, and children can be infectious for >10 days after onset of symptoms. Severely immunocompromised persons can shed virus for weeks or months. School-age children play a big role in the spread of flu in communities. For this reason the Advisory Committee on Immunization Practices (ACIP) voted to expand the routine vaccination recommendations to all children aged 5-18 years.

*continued on page 2*

**Beginning this flu season, providers are encouraged to vaccinate all children 5-18 years of age.**

## Adult Immunizations

September 21-27, 2008 is National Adult Immunization Awareness Week. Health care providers are key to not only making their patients aware of the vaccines they need but in decreasing barriers to immunizations by providing the vaccines to their patients. Studies show that patients are likely to accept vaccinations if their provider recommends them. Each year in the United States between 46,000 and 60,000 adults die from vaccine-preventable diseases (VPDs) or their complications compared to about 200 to 300 children. In addition, VPDs result in excess hospitalizations, lowered quality of life, and missed work. Vaccination saves healthcare dollars by keeping people healthy and enabling them to avoid many of the expensive therapies and hospitalizations needed to treat infectious diseases.

Two VPDs that cause the great majority of illness and death in adults are pneumococcal infections and influenza.

Five percent to 20% of the population develops influenza illness each year. Especially in the elderly, influenza can cause serious complications or death from exacerbations of chronic underlying medical conditions, including chronic obstructive pulmonary disease (COPD), heart failure, and diabetes. Influenza vaccination reduces the risk for pneumonia hospitalization of any kind. Annual influenza vaccination is recommended for all adults aged 50 years and older and for other adults with chronic underlying medical conditions. Since the elderly and persons with chronic medical conditions are still vulnerable to influenza in spite of vaccination, vaccinating people who have contact with these high-risk groups is also needed to provide a barrier to transmission.

*continued on page 11*

## Adult Immunizations...from page 1

According to the CDC, nearly one million adults aged 65 years and older are diagnosed with pneumonia each year and about one-third will be hospitalized. The risk of pneumococcal infections and complications can be reduced with the pneumococcal vaccine. Pneumococcal vaccine is recommended once for adults 65 years old or older and it is recommended for younger persons with chronic medical conditions that increase the risk for pneumococcal complications. If a person was vaccinated before age 65, a one-time revaccination is recommended after they reach age 65 if it has been at least 5 years since the first vaccination.

Tdap is a relatively new vaccine that is recommended for adults through the age of 64 years. A single dose of Tdap is recommended to replace one Td booster dose or in previously unvaccinated persons to replace one of the three primary series doses. Tdap is recommended for adults that will have contact with infants and for health care workers. In these cases, immunization may be administered at an interval as short as 2 years since the last Td. The Advisory Committee on Immunization Practices (ACIP) states that the primary objective of replacing a dose of Td with Tdap is to protect the vaccinated adult against pertussis. The secondary objective of adult Tdap vaccination is to reduce the reservoir of pertussis, and thereby potentially decrease exposure of persons at increased risk for complicated infection (e.g., infants), and to reduce the cost and disruption of pertussis in health-care facilities and other institutional settings.

Pertussis is endemic in the U.S. despite decades of routine childhood pertussis vaccination. Immunity against pertussis wanes five to ten years after the last childhood vaccination. Since the 1980s, the number of reported pertussis cases has steadily increased, especially among adolescents and adults. However, it is infants under 12 months that are more likely to suffer severe pertussis and pertussis-related deaths. Infants accounted for approximately 19% of nationally reported pertussis cases and 92% of the pertussis deaths in the U.S. during 2000-2004. Parents, grandparents and other adult close-contacts are common sources of the infection in infants.

There are an estimated 40 to 50 cases of tetanus reported each year with approximately 5 deaths in the U.S. In the 1990s the highest risk for tetanus was in people over the age of 65 years. Thirty-eight percent of tetanus cases were in the elderly and the elderly tended to have more severe disease. Almost all reported cases of tetanus occur in persons who either have never been vaccinated or who completed their primary series but have not had a booster vaccination in the past 10 years.

Diphtheria is rare in the U.S., but it is still common in the developing world. Former Soviet Union countries have reported over 150,000 cases since 1990. Myocarditis, polyneuritis, and airway obstruction are common

complications of respiratory diphtheria. Nearly one of every 10 people who get diphtheria will die from it.

Zoster vaccine, which is given as a single dose and is recommended for adults aged 60 years and older. Although zoster rarely causes death, it does cause a great deal of morbidity. There are approximately one million new cases of zoster every year in the U.S., and over half of the cases are in persons age 60 and older. Older individuals are at high risk for getting herpes zoster and they are at much higher risk for complications, especially for post herpetic neuralgia (PHN). The vaccine reduces the incidence of zoster by about 50%, and in those who do develop zoster, it reduces the severity and duration of pain and discomfort associated with zoster by 61 %. In addition, the incidence of PHN was reduced by two thirds.

For adult immunization recommendations, the ACIP annually publishes the Recommended Adult Immunization Schedule. The schedule is approved by the ACIP, the American Academy of Family Physicians, the American College of Obstetricians and Gynecologists, and the American College of Physicians. The revised schedule for October 2008–September 2009 will be published in mid-October. The current schedule is available in this edition and can be viewed with the revised schedule (when released) at the CDC's website at: <http://cdc.gov/vaccines/recs/schedules/adult-schedule.htm#chart>. You can also visit the Los Angeles County Immunization Program's website at: <http://www.publichealth.lacounty.gov/ip/IZschedule.htm> for a link to the schedule and for other adult immunization information.

### **A. Nelson El Amin, MD, MPH**

Medical Director

Los Angeles County Immunization Program

### **Cathy Schellhase, RN, PHN**

Nurse Consultant

Los Angeles County Immunization Program