PREPARING FOR INFLUENZA SEASON 2010-2011

Influenza vaccine manufacturers have begun distributing some lots of this year’s trivalent preparation. The vaccine strains for the 2010-2011 season are A/California/7/2009 (H1N1)-like (the same strain as was used for 2009 H1N1 monovalent vaccines), A/Perth/16/2009 (H3N2)-like, and B/Brisbane/60/2008-like. Providers should start vaccinating patients as soon as the vaccine arrives at their office. Protection will last throughout the flu season. This year, 170 million doses is the production goal; last year, 115 million doses of trivalent vaccine were produced.

UNIVERSAL RECOMMENDATION

Starting this season, annual influenza vaccination is now a routine recommendation for all persons aged ≥6 months, barring contraindications to vaccination. Annual vaccination was already recommended for an estimated 85% of the United States population on the basis of risk factors for flu-related complications or having close contact with a person at higher risk for complications. The only group remaining that was not recommended for routine vaccination was healthy non-pregnant adults aged 18–49 years who did not have an occupational risk for infection and who were not close contacts of medically high-risk persons. The universal recommendation has been discussed for years, with proponents advocating that this may be the only way to increase the low vaccination rates of people in the age 18 to 49 age group and the 50–64 age group who are at high risk for influenza complications. The influenza pandemic of 2009 likely hastened the universal recommendation as it is predicted that 2009 pandemic influenza A (H1N1)-like viruses will continue to circulate and the risk for influenza complications among adults aged 19–49 years is greater than is seen typically for seasonal influenza. Vaccine production is on target and there is no reason to think there will be shortages due to the universal recommendation. Typically, less than 50% of people in high-risk groups between ages 19 and 64 who have been previously targeted for flu vaccine actually get it. The universal recommendation should simplify communication and messages to the public.

FLU VACCINE FOR CHILDREN

This season, children under age 9 should receive 2 doses if they did not receive an influenza A (H1N1) 2009 monovalent vaccine last season, regardless of previous seasonal influenza vaccine history. This change in recommendations is made on the basis of data from several immunogenicity studies indicating that children aged <9 years have lower antibody levels and lower rates of protective response after receiving a single dose of vaccines containing the 2009 pandemic H1N1 antigen compared with older children and adults. This recommendation includes children who have received at least 2 doses of a seasonal influenza vaccine in a previous season and who would normally be scheduled to only receive 1 seasonal vaccine dose in the 2010–11 season.

A second dose is not necessary for children being vaccinated for the first time who were aged 8 years at the time of the first dose but who are seen again after they have reached age 9 years. Children aged 6 months through 8 years who had never received a seasonal influenza vaccine previously and who received only the 2009 H1N1 monovalent vaccine should receive 2 doses of the 2010–11 seasonal influenza vaccine, to provide adequate protection against influenza A (H3N2) and influenza B. Children aged 6 months–8 years for whom previous seasonal or 2009 H1N1 monovalent vaccine history cannot be determined should receive 2 doses of a 2010–11 seasonal influenza vaccine.

NEW HIGH DOSE FLU VACCINE

Fluzone High-Dose [sanofi pasteur] is a newly approved inactivated trivalent vaccine containing 60mcg (as opposed to the standard 15mcg) of hemagglutinin antigen per influenza vaccine virus strain. The new vaccine is an alternative for persons aged ≥65 years. CDC has not expressed a preference for Fluzone High-Dose or any other licensed inactivated influenza vaccine for use in people age 65 and older. Immunogenicity data from three studies among persons aged ≥65 years indicated that, compared with standard dose Fluzone, preparations of Fluzone High-Dose elicited significantly higher hemagglutination inhibition (HI) titers against all three influenza virus strains that were included in seasonal influenza vaccines recommended during the study period. Whether the higher post-vaccination immune responses observed among Fluzone High-Dose vaccine recipients will result in greater protection against influenza illness is unknown. Post-licensure studies involving between 26,000 and 33,000 elderly people are underway to assess the relative effectiveness of Fluzone High-Dose compared to standard dose inactivated influenza vaccine, but results from those studies are not this season. Fluzone High-Dose is twice the price of standard preparations and the supply will be limited. Sanofi-
Pasteur has produced 6 million doses of the vaccine, and there are approximately 27 million persons age 65 and over who will get a flu shot this season. The new vaccine will be covered by Medicare part B.

**FLU VACCINATION FOR HEALTHCARE WORKERS**

Although annual vaccination is recommended for healthcare workers and is a high priority for reducing morbidity associated with influenza in healthcare settings, NHIS data demonstrated a vaccination coverage level of only 44.4% among healthcare workers during the 2006–07 season, and 49% during the 2007–2008 season. Coverage levels during the 2009 pandemic were higher for seasonal vaccine, but remained low for the 2009 pandemic vaccine. By mid January 2010, estimated vaccination coverage among healthcare workers was 37% for 2009 H1N1 and 62% for seasonal influenza, based on a RAND Corporation telephone survey that used a somewhat different methodology than NHIS. Overall, 64% received either of these influenza vaccines, higher coverage than any previous season, but only 35% of healthcare workers surveyed reported receiving both vaccines. Vaccination of healthcare workers has been associated with reduced work absenteeism and with fewer deaths among nursing home patients and elderly hospitalized patients. Healthcare workers who decline vaccination frequently express doubts about the risk for influenza and the need for vaccination, are concerned about vaccine effectiveness and side effects, and dislike injections.

Many experts view healthcare worker vaccination as a patient safety issue. Since voluntary vaccination programs have not sufficiently raised vaccination rates, mandatory influenza vaccination has gained support. In July 2010, the International Society of Infectious Disease called for the CDC to issue recommendations that healthcare agencies should require their employees to be vaccinated. Recently the American Academy of Pediatrics and the Society for Healthcare Epidemiology of America have joined in advocating for mandatory vaccination of health care workers. On July 31, 2010, the Washington State Hospital Association board unanimously approved a motion asking all hospitals in Washington State to adopt policies that would require healthcare workers to either be immunized against influenza or to wear a surgical mask while at work in a healthcare facility when flu is active in the community. Some local hospitals, including Virginia Mason and Multicare Health System have implemented such policies with vast improvements in vaccination rates among employees.

Physicians and other healthcare providers can increase flu vaccination rates among their staff by providing vaccinations free of charge, making immunization very easy and convenient, and setting a good example by being immunized themselves. Providers should take every opportunity to encourage flu vaccination and correct common misconceptions.

**Source:**
Centers for Disease Control and Prevention. Prevention and Control of Influenza with Vaccines, Recommendations of the Advisory Committee on Immunization Practices (ACIP), 2010 MMWR 2010; 59 (No. RR-8), pp. 1-62