

# H1N1 FAQs for Physicians

## *From the ACP Adult Immunization Advisory Board*

### **Q1** *What is the evidence for vaccine safety in pregnant women?*


The seasonal flu shot is recommended for all pregnant women because of the much higher risk of complicated illness and death. Flu shots have not been shown to cause harm to pregnant women or their babies. The 2009 H1N1 flu vaccine is manufactured in an identical manner as the seasonal flu vaccine, and is being treated just like any influenza strain change each year.

Studies to test the 2009 H1N1 flu shots in healthy children, adults, and pregnant women are being done now. To date, no evidence of untoward adverse events have occurred in any of these vaccine recipients. These studies are being conducted by the National Institute of Allergy and Infectious Diseases (NIAID). More information can be found at <http://www3.niaid.nih.gov/news/QA/vteuH1N1qa.htm>.

### **Q2** *How early in pregnancy can influenza vaccine be administered?*

Both seasonal flu shots and 2009 H1N1 flu shots are recommended to pregnant women at any time during pregnancy.

### **Q3** *Can H1N1 vaccine and pneumococcal vaccine be given simultaneously?*

Anyone with an existing indication for pneumococcal vaccine should receive vaccine according to current ACIP recommendations during the outbreak of novel influenza A (H1N1). Emphasis should be placed on vaccinating people younger than 65 years who have established high-risk conditions, because pneumococcal vaccine coverage among this group is low and people in this group appear to be overrepresented among severe cases of novel influenza A (H1N1) infection, based on currently available data. PPSV23 coverage estimates are available at [http://www.cdc.gov/flu/professionals/vaccination/pdf/NHIS89\\_07ppvaxtrendtab.pdf](http://www.cdc.gov/flu/professionals/vaccination/pdf/NHIS89_07ppvaxtrendtab.pdf) 

### **Q4** *What are the contraindications to receiving the vaccine?*

Inactivated flu vaccine, including inactivated H1N1 vaccine, may be contraindicated in some people, including those who:

- Have anaphylactic reactions to chicken eggs

- Have had a severe reaction to a prior influenza vaccine
- Developed [Guillain-Barre syndrome](#) (GBS), a rare disorder of the nervous system, within 6 weeks of getting a previous flu vaccine
- Are younger than 6 months of age
- Have a moderate or severe illness with a fever; these persons should wait to get a flu vaccine

### **Q5** *Who should not be given the nasal vaccine formulation?*

LAIV is not yet licensed for the following groups. These groups should therefore receive the inactivated vaccine:

- People younger than 2 years of age
- Pregnant women
- People 50 years of age and older
- People with a medical condition that places them at higher risk for complications from influenza, including those with chronic heart or lung disease, such as asthma or reactive airways disease; people with medical conditions, such as diabetes or kidney failure; or people with illnesses that weaken the immune system or who take medications that can weaken the immune system
- Children younger than 5 years with a history of recurrent wheezing
- Children or adolescents receiving aspirin therapy
- People who have developed GBS within 6 weeks of getting a flu vaccine
- People who have a severe allergy to chicken eggs or who are allergic to any of the nasal spray vaccine components.

### **Q6** *What constitutes an egg allergy?*

An egg allergy usually occurs a few minutes to a few hours after eating eggs or foods containing eggs. Signs and symptoms range from mild to severe and can include skin rashes, hives, vomiting, or inflamed nasal passages. Rarely, egg allergy can cause anaphylaxis — a severe, life-threatening reaction. Egg allergy symptoms differ from person to person and can include:

- Skin inflammation or hives, the most common egg allergy reaction
- Allergic asthma
- Allergic nasal inflammation (rhinitis)
- Gastrointestinal symptoms, such as cramps, nausea, and vomiting

(Source: Mayo Clinic)

## **Q7** *Can seasonal and H1N1 vaccines be given together?*

- You can administer both the inactivated seasonal and the inactivated H1N1 influenza vaccines at the same visit (using separate syringes and sites) or at any time before or after each other.
- You can administer the inactivated seasonal and live H1N1 influenza vaccines together or at any time before or after each other.
- You can administer the live seasonal and inactivated H1N1 influenza vaccines together or at any time before or after each other.
- Administering both the LAIV seasonal and the LAIV H1N1 influenza vaccines at the same visit is *not* recommended because of concerns about competition between the two vaccine viruses, and the possibility that immunity to one or more strains in the vaccine might not develop. If you have only live vaccines for both seasonal and H1N1 influenza available, you should separate the doses of the two live vaccines by at least 4 weeks.

(Source: NM Dept of Health)

## **Q8** *Does the H1N1 or the LAIV vaccine contain thimerosal?*

There is no evidence that thimerosal (a mercury preservative in vaccine that comes in multidose vials) is harmful to adults, children, or pregnant women and their unborn babies. However, because some women are concerned about thimerosal during pregnancy, vaccine companies are making preservative-free seasonal flu vaccine and 2009 H1N1 flu vaccine in single-dose syringes for pregnant women and small children. The LAIV vaccines for both seasonal flu and H1N1 do not contain thimerosal. CDC advises pregnant women to get flu shots either with or without thimerosal.

## **Q9** *What are the data with regard to GBS and flu vaccine?*

In 1976, an earlier type of swine flu vaccine was associated with cases of a paralytic illness called Guillain-Barre Syndrome (GBS) at a rate of approximately 1 case per 100,000 persons vaccinated. Studies done since 1976 have shown a small risk for GBS in persons who received the seasonal influenza vaccine. This risk is estimated to be no more than 1 case of GBS per 1 million persons vaccinated.

**Q10** *How many doses of H1N1 vaccine do you need?*

The U.S. Food and Drug Administration (FDA) has approved the use of one dose of vaccine for full protection for persons 10 years and older, with two doses being needed for younger people.

**Q11** *For children who need two doses of vaccine, how far apart should they be given?*

CDC recommends that the two doses of 2009 H1N1 vaccine be separated by 4 weeks. However, if the second dose is separated from the first dose by at least 21 days, the second dose can be considered valid.

**Q12** *Do either the seasonal flu or H1N1 vaccines contain adjuvants?*

Adjuvants are agents that are sometimes added to a vaccine to increase its effectiveness. There are no adjuvants (such as squalene) in either the 2009 H1N1 or seasonal flu vaccines used in the United States.

**Q13** *Which vaccines contain thimerosal? Which do not?*

Multidose vials of flu vaccine contain the preservative thimerosal to prevent bacterial growth. There is no evidence that thimerosal is harmful to adults, children, or pregnant women and their unborn babies. However, because some women are concerned about exposure to preservatives during pregnancy, manufacturers are producing preservative-free seasonal flu vaccine and 2009 H1N1 flu vaccine in single-dose syringes. Persons interested in thimerosal-free vaccine should contact their providers to ensure its availability. CDC recommends that pregnant women receive flu vaccine with or without thimerosal.

**Q14** *Should you get the H1N1 vaccine if you "think" you have already had H1N1 flu but did not have specific testing?*

The symptoms of influenza (flu-like illnesses) are similar to those caused by many other viruses. Even when influenza viruses are causing large numbers of people to get sick, other viruses are also causing illnesses. Specific testing, called "RT-PCR test," is needed to determine whether an illness is caused by a specific influenza strain or by some other virus. This test is different from rapid flu tests that doctors can do in their offices. Since most people with flu-like illnesses will not be tested with RT-PCR this season, the majority will not know whether they have been infected with 2009 H1N1 flu or a different virus.

Therefore, if you were ill but did not have laboratory-confirmed 2009 H1N1 infection, you should get vaccinated if your doctor recommends it. So, most people recommended for 2009 H1N1 vaccination should be vaccinated with the 2009 H1N1 vaccine regardless of whether they had a flu-like illness earlier in the year. Any immunity from 2009 H1N1 influenza infection or vaccination will not provide protection against seasonal influenza. All people who want protection from seasonal flu should still get their seasonal influenza vaccine.

**Q15** *Should persons with lab-documented H1N1 infection be vaccinated?*

If a patient has had 2009 H1N1 flu, as confirmed by an RT-PCR test, he or she should have some immunity against 2009 H1N1 flu and can choose not to get the 2009 H1N1 vaccine. However, vaccination of a person with some existing immunity to the 2009 H1N1 virus will not be harmful. For more information on flu tests, see [Influenza Diagnostic Testing During the 2009-2010 Flu Season](#).

**Q16** *Does the seasonal flu shot provide any protection against H1N1 flu?*

Seasonal flu and 2009 H1N1 flu are caused by different viruses. The seasonal flu vaccine will not protect against the 2009 H1N1 flu and the 2009 H1N1 flu vaccine will not protect against seasonal flu.

**Q17** *At what point will the high-priority list of patients to be vaccinated give way to the lower-priority list?*

We do not expect that there will be a shortage of 2009 H1N1 vaccine, but availability and demand can be unpredictable. There is a possibility that the vaccine will initially be available in limited quantities. In this setting, the Advisory Committee on Immunization Practices recommended that the following groups receive the vaccine before others: pregnant women, people who live with or care for children younger than 6 months of age, health care and emergency medical services personnel with direct patient contact, children 6 months through 4 years of age, and children 5 through 18 years of age who have chronic medical conditions.

The committee recognized the need to assess supply and demand issues at the local level. There may well be substantial local variation in the strictness with which the ACIP priority groups will be implemented, ranging from reasonably strict to quite lax. This will probably be influenced by local acceptance of the vaccine; if demand is high perhaps targeting to the priority groups will be more vigorous and the converse if vaccine acceptance is light.

The committee further recommended that once the demand for vaccine for these target groups has been met at the local level, programs and providers should begin vaccinating everyone else from ages 25 through 64 years. Current studies indicate the risk for infection among persons age 65 or older is less than that for younger age groups. Therefore, as vaccine supply and demand for vaccine among younger age groups is being met, programs and providers should offer vaccination to people older than age 65.

**Q18** *Will patients be required to prove that they have a risk factor in order to receive the vaccine?*

It is unlikely that documentation will be needed; guidance from the local health department may be available in the case of high demand.

**Q19** *Will immunocompromised patients respond to the vaccine?*

Immunocompromised persons do not respond as effectively to seasonal vaccines as do those with normal immune systems. However, it is still beneficial to get vaccinated (as well as ensuring that those living with or surrounding the immunocompromised person be vaccinated), because any level of protection is better than no protection.

**Q20** *How do the vaccines from the different manufacturers differ?*

The FDA has approved vaccines for the pandemic H1N1 influenza from four manufacturers, CSL, Novartis, Sanofi Pasteur, and MedImmune. Each of the manufacturers developed the Influenza A (H1N1) 2009 Monovalent vaccines using a well-established, licensed, egg-based manufacturing process that is used for seasonal influenza vaccine.

*Except where noted, answers provided by the  
Centers for Disease Control and Prevention.*