

NEEDLE TIPS

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What's new with *Needle Tips*?

For 15 years, we've printed and mailed *Needle Tips* to you twice a year, but in the future, you'll receive issues more often because *Needle Tips* is now an online-only publication. *Needle Tips* will continue to bring you the same great content—Ask the Experts with answers written by CDC experts, Vaccine Highlights, ready-to-copy immunization educational materials, and more. This issue focuses on a single vaccine topic—influenza (both H1N1 and seasonal). Some future issues will also concentrate on a single topic; others will include a range of topics.

This issue includes not only materials developed by us at the Immunization Action Coalition (IAC) but also excellent materials from three of our partners: an H1N1 influenza educational piece from the Vaccine Education Center at The Children's Hospital of Philadelphia and a piece for pregnant women developed by the American College of Obstetricians and Gynecologists and the American Medical Association. Like the rest of the content of *Needle Tips*, these pieces from our partners are copyright-free and ready for you to copy and distribute to others.

Here's something you might not know about our Ask the Experts Q&As. In addition to the Q&As in this issue, you'll find more than 1,000 posted for your use on the IAC website. To access them, go to www.immunize.org/askexperts. Pick the Q&As you find the most helpful. Feel free to copy and distribute them widely, either in your newsletter or by other means. All we ask is that you cite IAC and CDC as the sources of these materials (for instructions on citing IAC, visit www.immunize.org/citeiac).

Finally, be sure you're subscribed to *Needle Tips* so you receive email notification of new issues as soon as they're available online. Subscribe at www.immunize.org/subscribe.

Ask the Experts

IAC extends thanks to our experts, William L. Atkinson, MD, MPH, and Andrew T. Kroger, MD, MPH, medical epidemiologists at the National Center for Immunization and Respiratory Diseases, Centers for Disease Control and Prevention (CDC).

General vaccine questions

Can anyone who wants it now receive H1N1 influenza vaccine?

Currently, each state can determine which people can receive H1N1 vaccine. As of this writing, an increasing number of states have decided to give the vaccine to whomever wants it. Check with your local or state health department to find out the people who are eligible to receive the H1N1 vaccine in your region.

According to ACIP, individuals ages 25–64 years with medical conditions that put them at higher risk for influenza-related complications

Immunization questions?

- Call the CDC-INFO Contact Center at (800) 232-4636 or (800) CDC-INFO
- Email nipinfo@cdc.gov
- Call your state health dept. (phone numbers at www.immunize.org/coordinators)

are among those prioritized to receive H1N1 influenza vaccine. What exactly are these high-risk conditions?

A footnote on page 5 of the ACIP recommendations for use of H1N1 influenza vaccine (www.cdc.gov/mmwr/PDF/rr/rr5810.pdf) defines these medical conditions as follows: "Chronic medical conditions that confer a higher risk for influenza-related complications include chronic pulmonary (including asthma), cardiovascular (except hypertension), renal, hepatic, cognitive, neurologic/neuromuscular, hematologic, or metabolic disorders (including diabetes mellitus) or immunosuppression (including immunosuppression caused by medications or by human immunodeficiency virus)."

People 65 years and older are not among CDC's initial target groups for H1N1 vaccine. Our hospital is refusing to give H1N1 vaccine to healthcare personnel who are 65 and older. Is this correct?

This is not correct. People 65 years or older who are healthcare providers, or who live with or care for an infant younger than age 6 months, are among those prioritized to receive H1N1 vaccine.

Can we administer both the seasonal and H1N1 influenza vaccines at the same visit?

You can in most cases. See the points below.

- You can administer both the inactivated seasonal and the inactivated H1N1 influenza vaccines at the same visit (using separate syringes and sites). Also, you can administer them at any time before or after each other.
- You can administer the inactivated seasonal and the live H1N1 influenza vaccines together or at

any time before or after each other.

- You can administer the live seasonal and the inactivated H1N1 influenza vaccines together or at any time before or after each other.
- Administering both the LIVE attenuated seasonal and the LIVE attenuated H1N1 influenza vaccines at the same visit is NOT recommended because of concerns about competition between the two live vaccine viruses. If you have only live seasonal influenza vaccine and live H1N1 influenza vaccine available, you should separate the doses of the two live vaccines by at least 4 weeks.

If seasonal live attenuated influenza vaccine (LAIV) and 2009 H1N1 LAIV are mistakenly given during the same visit, do either or both doses need to be repeated?

There are no data on the administration of seasonal LAIV and 2009 H1N1 LAIV during the same visit. ACIP recommends that seasonal LAIV and 2009 H1N1 LAIV not be administered during the same visit. However, if both types of LAIV are inadvertently administered during the same visit, neither vaccine needs to be repeated.

What if seasonal LAIV and 2009 H1N1 LAIV are given less than 28 days apart?

ACIP recommends a minimum interval of 28 days (4 weeks) between use of a seasonal LAIV and a 2009 H1N1 LAIV because these are considered two different live vaccines. Based on previous studies of LAIV replication and immune response, however, a dosing interval as short as 14 days (2

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weeks) might be sufficient to allow for an appropriate immune response to both vaccines. Therefore, an interval of 2 weeks or more between these two live vaccines is considered acceptable. However, if a dose of seasonal LAIV and a dose of H1N1 LAIV are administered 1–13 days apart, the LAIV vaccine that was given last should be considered invalid and should be repeated 28 days after the invalid dose. An interval of 14 days between administering the invalid dose and the repeat dose is acceptable, however. See the previous question for guidance about what to do if two doses of LAIV are inadvertently given on the same day.

What is the recommended spacing between doses for a child who requires 2 doses of H1N1 influenza vaccine?

The first and second doses of either the live or the inactivated H1N1 vaccine should be separated by at least 28 days. See the paragraphs below:

Spacing when giving 2 doses of live H1N1 vaccine to a child: If 2 doses of live H1N1 influenza vaccine (nasal spray) are given less than 28 days apart, but at least 14 days apart, count the doses as valid. If 2 doses of live H1N1 influenza vaccine are given 1–13 days apart, the second dose is invalid. Give the repeat dose at least 14 days (preferably 28 days) after the invalid dose.

Spacing when giving 2 doses of inactivated H1N1 vaccine to a child: If 2 doses of inactivated H1N1 influenza vaccine are given less than 28 days apart, but at least 21 days apart, count the doses as valid. If 2 doses of inactivated H1N1 influenza vaccine are given 1–20 days apart, the second dose is invalid. Give the repeat dose at least 21 days (preferably 28 days) after the invalid dose.

Can a child who requires 2 doses of a 2009 H1N1 influenza vaccine, and who was given an inactivated H1N1 vaccine for the first dose, complete the series with a live H1N1 vaccine? Or vice versa?

Data describing the immune response to mixed schedules are limited. Therefore, when feasible, the same type of vaccine (either live attenuated vaccine OR inactivated vaccine) should be used in a 2-dose schedule. Mixed schedules, however, are preferable to not completing the series. A 28-day interval between 2 doses of a mixed inactivated/live H1N1 vaccine series is recommended, but a 21-day interval is acceptable. If the vaccines are separated by 1–20 days, the second dose is invalid. Give the repeat dose 28 days (21 days acceptable) after the invalid dose was given.

What if seasonal LAIV or H1N1 LAIV is given 2 weeks after a dose of varicella vaccine or MMR? Does the dose of LAIV need to be repeated?

Yes. The general rule for spacing two live virus vaccines is that if two live virus vaccines are administered less than 4 weeks apart and not on the same day, the vaccine given second should be considered invalid and repeated. The repeat dose should be administered at least 4 weeks after the invalid dose. The two exceptions to this guidance are (1) that live H1N1 and live seasonal influenza vaccines should not be given on the same day and (2) that the minimum interval between seasonal LAIV and H1N1 LAIV is 14 days.

Can a person with a runny nose receive LAIV vaccine?

Yes.

Can 2009 H1N1 vaccine be administered at the same visit as other vaccines?

Inactivated 2009 H1N1 vaccine can be administered at the same visit as any other vaccine, including pneumococcal polysaccharide vaccine. Live 2009 H1N1 vaccine can be administered at the same visit as any other live or inactivated vaccine EXCEPT seasonal live attenuated influenza vaccine.

In the package inserts, the age range for children who need 2 doses is different for seasonal (6 months through 8 years) and 2009 H1N1 monovalent vaccine (6 months through 9 years). Does CDC recommend that clinicians follow the recommendation in the package inserts?

Yes, CDC recommends that clinicians follow the guidance in the manufacturer package inserts. For 2009 H1N1 monovalent vaccines, that means that clinicians should administer 2 doses of 2009 H1N1 monovalent vaccine to children ages 6 months through 9 years. Persons 10 years and older should receive 1 dose.

If a child receives his first dose of H1N1 vaccine at age 9 years, but is 10 years old when he comes back for the second dose, should the second dose be given?

According to CDC recommendations, if a child turns 10 years old between the first and second doses of H1N1 vaccine, the second dose is not necessary.

Can the two types of LAIV vaccine be given to close contacts of pregnant women?

Yes. A pregnant woman can be in close contact with someone who has received LAIV vaccine for either H1N1 or seasonal influenza. In addition, a pregnant healthcare worker can administer both LAIV vaccines to patients. Because the viruses in these vaccines are attenuated or weakened, vaccine viruses are unlikely to cause any illness symptoms, even if an unvaccinated person inadvertently gets vaccine viruses in their nose. The LAIV vaccine for seasonal influenza viruses has been used in millions of school children and healthy adults since it was licensed, and there have been no reports of pregnant women becoming ill after exposure to their vaccinated children or other family members.

Although both LAIV vaccines can be given to contacts of pregnant women, pregnant women should not receive either of the LAIV vaccines.

Are there any contraindications to giving breastfeeding mothers the 2009 H1N1 vaccine?

Breastfeeding mothers can get either live or inactivated H1N1 influenza vaccine. They can also receive either live or inactivated seasonal influenza vaccine. As noted elsewhere, seasonal and H1N1 LAIV vaccines should not both be given at the same visit.

What can I say to patients who think the H1N1 influenza vaccines are “new” or experimental?

The 2009 H1N1 influenza vaccines are being produced by the same companies using the same procedures used to produce seasonal influenza vaccines. The 2009 H1N1

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vaccines are exactly the same as seasonal influenza vaccines except for the strain of influenza virus they contain. One way to approach this discussion is to emphasize that the 2009 H1N1 vaccine is not a “new” vaccine but rather is a change in the strains (just as there is a change in the strains used to prepare a new vaccine for each influenza season). Each year, experts look at the strains that are likely to be circulating during the next influenza season and put those into the upcoming year’s influenza vaccine. That’s exactly what has been done in preparing the H1N1 vaccine.

Most of the seasonal influenza vaccines distributed over the last decade have included H1N1-like strains. If the timing had been better, it is possible that the 2009 H1N1 strain could have been included in the 2009–10 seasonal influenza vaccine.

Do any of the H1N1 influenza vaccines include an adjuvant?

None of the currently approved H1N1 influenza vaccines or seasonal influenza vaccines contains an adjuvant. (NOTE: An adjuvant is a substance that is sometimes added to a vaccine to enhance the immune response, so that smaller quantities of vaccine can be given.) Most childhood vaccines contain an adjuvant.

Do the H1N1 influenza vaccines use thimerosal as a preservative?

All multidose vials of influenza vaccine (both seasonal and H1N1) contain thimerosal as a preservative. There is no evidence that thimerosal is harmful. CDC recommends that pregnant women and children may receive influenza vaccine with or without thimerosal. However, because some pregnant women and parents are concerned about exposure to thimerosal, manufacturers are producing some preservative-free seasonal and H1N1 influenza vaccines in single-dose syringes.

The live intranasal H1N1 influenza vaccine is packaged in single doses so it does not use a preservative; however, it cannot be used for pregnant women or children younger than age 2 years.

Can the H1N1 influenza vaccine be given to someone who had an influenza-like illness between April and now?

If an influenza-like illness (ILI) was confirmed as H1N1 by reverse transcriptase polymerase chain reaction (RT-PCR), then vaccination with H1N1 monovalent vaccine is not necessary for the 2009–10 season. If the ILI was not confirmed by RT-PCR, then the person should be vaccinated if indicated. There is no harm in vaccinating a person who had H1N1 influenza in the past.

Can we test patients who think they already had H1N1 influenza to see if their infection was caused by H1N1?

There is no test readily available that can show whether a person had 2009 H1N1 influenza in the past. People for whom the 2009 H1N1 influenza vaccine is recommended should receive it, unless they can be certain they had 2009 H1N1 influenza

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based on a reverse transcriptase polymerase chain reaction (RT-PCR) test.

Can patients on influenza antiviral prophylaxis (e.g., Tamiflu) receive seasonal and/or H1N1 influenza vaccine?

Such patients can receive inactivated seasonal or inactivated H1N1 influenza vaccine. A person taking an influenza antiviral drug (including Tamiflu or Relenza) should not be given the nasal-spray influenza vaccine until 48 hours after the last dose of the influenza antiviral medication was given. If LAIV is administered less than 48 hours after a dose of antiviral medication, or if antivirals are administered less than 2 weeks after LAIV is administered, then the LAIV dose should not be counted as valid.

Why is there an increased emphasis on giving pneumococcal polysaccharide vaccine (PPSV) this influenza season?

The reason is that CDC is receiving reports of greater-than-expected numbers of cases of invasive pneumococcal disease concurrent with increases in influenza-associated hospitalizations. Healthcare providers should give PPSV to all people for whom it is recommended. This includes previously unvaccinated adults age 65 years and older and people ages 2–64 years with certain high-risk medical conditions. For an explanation about the importance of using pneumococcal vaccine during influenza season, read CDC’s Health Advisory titled “Pneumococcal Vaccination Recommended to Help Prevent Secondary Infections” at www2a.cdc.gov/HAN/ArchiveSys/ViewMsgV.asp?AlertNum=00301.

What personal protective equipment is recommended for healthcare workers who are administering LAIV vaccines?

Personal protective equipment (gloves and masks) are not needed when administering LAIV vaccines for seasonal or 2009 H1N1 influenza virus.

Do providers working at a large-scale influenza vaccination event have to wash their hands between each patient?

Yes. Hands should be washed thoroughly with soap and water or cleansed with an alcohol-based waterless antiseptic between patients. The Department of Health and Human Services has provided the following guidance in its Pandemic Influenza Plan:

*If hands are visibly soiled or contaminated with

respiratory secretions, wash hands with soap (either non-antimicrobial or antimicrobial) and water.

*In the absence of visible soiling of hands, approved alcohol-based products for hand disinfection are preferred over antimicrobial soap and water or plain soap and water because of their superior microbiocidal activity, reduced drying of the skin, and convenience.

For more information, go to: www.cdc.gov/hand-hygiene.

Though I know it is not necessary to wear gloves when providing injections, if a nurse chooses to wear gloves, should the nurse change gloves after administering each vaccination during a busy flu clinic?

Yes. Persons who administer vaccines should either wash their hands with soap and water, use alcohol-based hand sanitizer, or change their gloves between individual patient encounters.

Where can I find VISs for seasonal and H1N1 influenza vaccines?

IAC posts the English-language VISs developed by CDC and all available translations on its website as soon as they become available. There are more than 40 translations of certain VISs. Please note that all VIS translations are graciously donated. To access all VISs and their translations, go to www.immunize.org/vis.

NOTE: To submit a question to Ask the Experts, email your question to admin@immunize.org. Most questions featured in Ask the Experts are a composite of several inquiries—we cannot guarantee that we will print your specific question. Also, we may have already answered your question. To see if we have, check our Ask the Experts archive of more than a thousand questions at www.immunize.org/askexperts.

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