# NEEDLE TIPS

from the Immunization Action Coalition — www.immunize.org

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# Don't Just "Offer" HPV Vaccine to Parents for Preteens. Recommend It!

Let's start with the good news. Since human papillomavirus (HPV) vaccine was licensed for use in the U.S. in 2006, vaccine-type HPV prevalence has declined 56% among females 14-19 years of age. Now for the bad news. According to CDC's most recent National Immunization Survey for teens, HPV vaccination rates did not increase at all from 2011 to 2012 in 13- to 17-year-old girls. Only half of these teens received the first dose of this anticancer vaccine, and only one-third received the full 3-dose series. Tdap and meningococcal vaccines were added to the vaccination schedule for preteens at about the same time; their coverage rates are quite high, 85% and 74%, respectively. These survey results demonstrate that we are missing opportunities to vaccinate preteens for HPV. We need to do better.

Research consistently shows that a provider's recommendation to vaccinate is the single most influential factor in convincing parents to vaccinate their children. Here are some important points to remember and statements you can make to parents when recommending HPV vaccine:

Rather than asking a parent if they're interested in getting HPV vaccine for their child, say:
 "HPV vaccine is very important because it prevents cancer. That's why I'm recommending

that your daughter/son receive the first dose of HPV vaccine today."

- You can say: "HPV can cause cancers of the cervix, vagina, and vulva in women, cancer of the penis in men, and cancers of the anus and the mouth or throat in both men and women."
- You can say: "We're vaccinating today so your child will have the best protection possible, well before they get exposed to HPV."
- You can say: "I strongly believe in the importance of this cancer-preventing vaccine, and I have given HPV vaccine to my son/daughter/grandchild/niece/nephew/friend's children. Experts (like the AAP, AAFP, ACOG, cancer doctors, and CDC) also agree that this vaccine is very important for your child."

Your approach to discussing HPV vaccination with a parent strongly influences whether they have their child vaccinated. When you ask parents if they'd like to vaccinate their child, vaccine acceptance drops significantly. Your strong recommendation is what is needed to protect our nation's children from HPV.

See page 6 for more sample scripts from CDC about how to recommend HPV vaccine, and page 7 for IAC's new HPV handout for parents.

# Ask the Experts

IAC extends thanks to our experts, medical officer Andrew T. Kroger, MD, MPH; nurse educator Donna L. Weaver, RN, MN; and medical officer Iyabode Akinsanya-Beysolow, MD, MPH. All are with the National Center for Immunization and Respiratory Diseases, Centers for Disease Control and Prevention (CDC).

# **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)

# **General vaccine questions**

# What are the ACIP recommendations for vaccination of preterm infants?

Preterm infants should be vaccinated at the same chronological age and according to the same schedule as full-term infants, regardless of birth weight, with the exception of the birth dose of hepatitis B vaccine. Infants weighing less than 2 kg (4.4 lb) whose mothers' HBsAg status is either positive or unknown should receive HBIG (hepatitis B immune globulin) and hepatitis B vaccine within 12 hours of birth. This dose of hepatitis B vaccine should not be counted as a valid first dose in the series, and it should be repeated at age 1-2 months. If the preterm infant's mother's HBsAg status is negative, the infant's first dose of hepatitis B vaccine should be withheld until the infant is chronologically 1 month of age or is ready to be discharged from the hospital, whichever occurs first. For complete details, see the Vaccination of Preterm Infants section (pages 25-26) of the ACIP General Recommendations on

Ask the Experts . . . continued on p. 5 ▶



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# The Immunization Action Coalition Connects with the Public

# Please refer parents and others to vaccineinformation.org and IAC's Facebook page

# Website for Parents, Teens, and Adults

IAC's Vaccine Information You Need website — www.vaccineinformation.org — is a resource intended to support your efforts to educate your patients and the public about vaccines, vaccination, and vaccine-preventable diseases. Parents and your teen and adult patients can find information on specific vaccines and on vaccines needed by particular age groups. Our website includes personal stories, hundreds of videos, and other resources tailored to public interests and concerns. If your healthcare organization has a website, blog, or Facebook page, we ask you to add a link to IAC's website for the public: www.vaccineinformation.org.

# Social Media and IAC

We are delighted to announce that IAC's online presence has expanded to include social media platforms. IAC invites you and your patients to connect with us on Facebook and Twitter. Our Facebook page is designed to help parents and all interested Facebook users learn about vaccines and their importance. If you have a personal or organizational Facebook page, please take a minute to "like" IAC on Facebook. If you have an account on Twitter, please take a minute to Follow@ ImmunizeAction on Twitter. Also, you and your patients are invited to view and repost videos available from IAC's YouTube account.

IAC is committed to supporting your efforts to promote appropriate and timely vaccination. Together, we can encourage public vaccine awareness that leads to better informed healthcare decisions.

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To receive sample cards, contact us: admininfo@immunize.org

# "Immunization Techniques — Best Practices with Infants, Children, and Adults"



The California Department of Public Health, Immunization Branch, updated its award-winning training video, "Immunization Techniques: Best Practices with Infants, Children, and Adults." The 25-minute DVD can be used to train new employees and to refresh the skills of experienced staff on administering injectable, oral, and nasal-spray vaccines to children, teens, and adults. Make sure your healthcare setting has the 2010 edition!

The cost is \$17 each for 1–9 copies; \$10.25 each for 10–24 copies; \$7 each for 25–49 copies; \$5.75 each for 50–99 copies.

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For healthcare settings in California, contact your local health department immunization program for a free copy.

# **Vaccine Highlights**

# Recommendations, schedules, and more

Editor's note: The information in Vaccine Highlights is current as of Nov. 15, 2013.

# The next ACIP meetings

A committee of 15 national experts, the Advisory Committee on Immunization Practices (ACIP) advises CDC on the appropriate use of vaccines. ACIP meets three times a year in Atlanta; meetings are open to the public. The next two meetings will be held on Feb. 26–27, and June 25–26, 2014. For more information, visit www.cdc.gov/vaccines/acip/index.html.

ACIP periodically issues public health recommendations on the use of vaccines. Clinicians who vaccinate should have a current set for reference. Published in the *Morbidity and Mortality Weekly Report (MMWR)*, ACIP recommendations are readily available. Here are sources:

- Download them from links on Immunization Action Coalition (IAC) website: www. immunize.org/acip.
- Download them from CDC's ACIP website: www.cdc.gov/vaccines/hcp/acip-recs.

On October 22, CDC posted minutes of ACIP's June 2013 meeting at www.cdc.gov/vaccines/acip/meetings/downloads/min-archive/min-jun13.pdf. In addition, extensive information on ACIP meetings is available at www.cdc.gov/vaccines/acip/meetings/meetings-info.html, including details on past and upcoming meetings, meeting dates, registration, draft agendas, minutes, live archives, and presentation slides.

# **CDC** immunization news

On September 12, CDC's National Center for Immunization and Respiratory Diseases (NCIRD) Director Anne Schuchat, MD, presided over a media telebriefing during which she discussed 2012 immunization rates among U.S. infants, recent U.S. measles cases and outbreaks, and the 20th anniversary of the passage of the legislation that created the Vaccines for Children (VFC) program. A transcript and an audio recording of the telebriefing are available at www.cdc.gov/media/releases/2013/t0912\_measles-outbreaks-data. html.

On the same date, CDC posted a digital press kit titled "20 Years of Success: CDC Celebrates 20th Anniversary of Vaccines for Children Program" at www.cdc.gov/media/dpk/2013/dpk-20thanniversary-vaccines.html. The press kit contains a selection of VFC-related resources for healthcare professionals and the public, including a slide show, videos, and online print materials.

On September 13, CDC published "National, State, and Local Area Vaccination Coverage Among Children Aged 19–35 Months—U.S., 2012" in *MMWR*. The report is available at www.cdc.gov/mmwr/preview/mmwrhtml/mm6236a1. htm.

On August 30, CDC published "National and State Vaccination Coverage Among Adolescents Aged 13–17 Years—U.S., 2012" in *MMWR*. Access the article at www.cdc.gov/mmwr/preview/mmwrhtml/mm6234a1.htm.

# Influenza news

On October 28, the journal Pediatrics published "Influenza-Associated Pediatric Deaths in the United States, 2004-2012" available at http://pediatrics.aappublications.org/content/ early/2013/10/23/peds.2013-1493.full.pdf+html. The article reported flu-related deaths in children younger than age 18 years over the course of eight influenza seasons, from October 2004 through September 2012. Results showed that influenzarelated deaths occurred in many healthy children, as well as those with one or more underlying health conditions. In addition, most of the children reported to have died during the study period had not received a seasonal influenza vaccination. The findings support CDC's recommendation that all children 6 months of age and older should receive influenza vaccination each year.

On September 20, CDC issued Prevention and Control of Seasonal Influenza with Vaccines: Recommendations of the Advisory Committee on Immunization Practices—U.S., 2013-2014. Routine annual influenza vaccination is recommended for all people age 6 months and older. The report describes recently approved vaccines, including quadrivalent live attenuated influenza vaccine (LAIV4), quadrivalent inactivated influenza vaccine (IIV4), trivalent cell culture-based inactivated influenza vaccine (ccIIV3), and trivalent recombinant influenza vaccine (RIV3). No preferential recommendation is made for one influenza vaccine product over another for persons for whom more than one product is otherwise appropriate. The ACIP recommendations are available at www.cdc.gov/mmwr/pdf/rr/rr6207.pdf.

CDC recently published three articles in *MMWR* on influenza vaccination coverage:

- "Surveillance of Influenza Vaccination Coverage—U.S., 2007–08 Through 2011–12 Influenza Seasons" in the Oct. 25 issue at www.cdc.gov/mmwr/preview/mmwrhtml/ss6204a1.htm,
- "Influenza Vaccination Coverage Among Health-Care Personnel—U.S., 2012–13 Influ-

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enza Season" in the Sept. 27 issue at www.cdc. gov/mmwr/preview/mmwrhtml/mm6238a2. htm, and

• "Influenza Vaccination Coverage Among Pregnant Women—U.S., 2012–13 Influenza Season" in the Sept. 27 issue at www.cdc.gov/ mmwr/preview/mmwrhtml/mm6238a3.htm.

On August 22, CDC released a "Dear Colleague" letter written by Anne Schuchat, MD, director, NCIRD. In the letter, Dr. Schuchat urges health-care professionals to talk with patients and the parents of children about the benefits of yearly influenza vaccination for people of all ages. The letter also encourages providers to begin vaccinating as soon as vaccine is available and to educate themselves about the influenza vaccine options currently available. Access the letter at www.cdc. gov/flu/pdf/professionals/lettertoproviders.pdf.

# Meningococcal vaccine news

On October 23, ACIP voted to recommend the use of Menveo (MCV4-CRM, Novartis) in high-risk children 2 through 23 months of age. Previously, the FDA had licensed the use of Menveo in children 2 years of age or older, but the agency expanded licensure to the 2 through 23 months age group on August 1. Three meningococcal conjugate vaccines are now approved and recommended

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for certain high-risk children: MenHibrix (Hib-MenCY, GSK) for children 6 weeks through 18 months of age, Menveo for children 2 months and older, and Menactra (MCV4-D, sanofi) for children 9 months and older.

In the November issue of the journal *Pediatrics*, the American Academy of Pediatrics (AAP) endorsed ACIP's recommendations for meningococcal vaccination of children and adults. See <a href="http://pediatrics.aappublications.org/content/132/5/e1463.full">http://pediatrics.aappublications.org/content/132/5/e1463.full</a>. The publication *Prevention and Control of Meningococcal Disease: Recommendations of ACIP* is available at <a href="https://www.cdc.gov/mmwr/pdf/rr/rr6202.pdf">www.cdc.gov/mmwr/pdf/rr/rr6202.pdf</a>.

# **Measles news**

In the September 13 issue of *MMWR*, CDC published three reports on measles outbreaks in the United States:

 "Measles—U.S., January 1–August 24, 2013," available at www.cdc.gov/mmwr/preview/ mmwrhtml/mm6236a2.htm;

- "Notes from the Field: Measles Outbreak Among Members of a Religious Community— Brooklyn, New York, March–June 2013" at www.cdc.gov/mmwr/preview/mmwrhtml/ mm6236a5.htm; and
- "Notes from the Field: Measles Outbreak Associated with a Traveler Returning from India—North Carolina, April–May 2013" at www.cdc.gov/mmwr/preview/mmwrhtml/mm6236a6.htm.

# J. encephalitis vaccine news

On November 15, CDC published "Use of Japanese Encephalitis Vaccine in Children: Recommendations of the Advisory Committee on Immunization Practices, 2013." In May 2013, the Food and Drug Administration approved Intercell Biomedical's license application to extend the age range of its inactivated Japanese encephalitis vaccine (IXIARO) from age 17 years and older to age 2 months and older. This ACIP statement can be accessed at www.cdc.gov/mmwr/pdf/wk/mm6245.pdf, pages 898–900.

# New and updated VISs

Check the dates on your supply of Vaccine Information Statements (VISs). If any are outdated, get current versions and VISs in more than 30 languages at www.immunize.org/vis.

DTaP/DT/DTP 5/17/07	MMRV5/21/10
Hepatitis A 10/25/11	PCV132/27/13
Hepatitis B 2/2/12	PPSV10/6/09
Hib12/16/98	Polio11/8/11
HPV (Cervarix) 5/3/11	Rabies 10/6/09
HPV (Gardasil)5/17/13	Rotavirus 8/26/13
Influenza (LAIV) 7/26/13	Shingles 10/6/09
Influenza (TIV) 7/26/13	Td/Tdap 1/24/12
Japan. enceph12/7/11	Tdap5/9/13
Meningococcal. 10/14/11	Typhoid 5/29/12
MMR4/20/12	Varicella 3/13/08
Multi-vaccine VIS11/16/12	Yellow fever 3/30/11
(for 6 vaccines given to infants/children:	
DTaP, IPV, Hib, HepB, PCV, RV)	



For a ready-to-print version of this table for posting in your practice, go to www.immunize. org/catg.d/p2029.pdf.

# Ask the Experts . . . continued from page 1

*Immunization*, available at www.cdc.gov/mmwr/pdf/rr/rr6002.pdf.

We plan to keep our influenza vaccine in coolers when we travel to off-site vaccination events. How can we ensure the vaccine remains within the proper temperature range?

CDC does not recommend keeping vaccines in transport containers unless they are portable refrigerator or freezer units. If vaccines must be kept in transport containers during off-site clinics:

- The containers should remain closed as much as possible.
- Only the amount of vaccine needed at one time should be removed for preparation and administration.
- A calibrated thermometer (preferably with a biosafe glycol-encased thermometer probe) should be placed as close as possible to the vaccines within the container.
- The temperature inside the container should be read and documented at least hourly.

If you have concerns that vaccines or diluents may have been compromised (exposed to inappropriate conditions/temperatures or handled improperly), label them "DO NOT USE" and store them under appropriate conditions separated from other

### Needle Tips correction policy

If you find an error, please notify us immediately by sending an email message to admin@immunize.org. We publish notification of significant errors in our email announcement service, *IAC Express*. Be sure you're signed up for this service. To subscribe, visit www.immunize.org/subscribe.

vaccine supplies. Then contact your immunization program and/or vaccine manufacturer for guidance. Do not discard the vaccines or diluents unless directed to by your immunization program and/or the manufacturer. For more information, see the Transporting Vaccine in an Emergency or to Off-Site Facilities section on pages 91–96 of CDC's *Vaccine Storage and Handling Toolkit* at www.cdc.gov/vaccines/recs/storage/toolkit/storage-handling-toolkit.pdf. Additional information is available on IAC's Vaccine Storage and Handling website at www.immunize.org/handouts/vaccine-storage-handling.asp.

# Influenza vaccine

We inadvertently administered a 0.5 mL dose of FluLaval (GSK) to a 2-year-old child before realizing that the vaccine is only licensed for use in people age 3 years and older. Do we need to repeat the dose with an age-appropriate product?

No, the dose does not need to be repeated. However, two errors actually occurred here. In addition to the age discrepancy, the child also received a 0.5 mL dose of vaccine rather than the correct dose (0.25 mL) for the child's age. Clinicians should carefully select an influenza vaccine that is licensed for the age group of the person being vaccinated. Fluzone 0.25 mL (sanofi) is the only inactivated influenza vaccine approved for use in children age 6 months through two years. The live attenuated nasal spray vaccine (LAIV, FluMist, MedImmune) is approved for use in most healthy children age 2 years and older (as well as for healthy nonpregnant adults through age 49 years).

If the child should need a second dose of influenza vaccine, an age-appropriate vaccine should be selected.

The Immunization Action Coalition's educational piece "Influenza Vaccine Products for the 2013–2014 Influenza Season" (available at www.immunize.org/catg.d/p4072.pdf) provides helpful information on the wide variety of influenza vaccines in use this season.

We inadvertently administered intradermal influenza vaccine (Fluzone ID, sanofi) to a patient who is not in the recommended age range of 18 through 64 years. What should we do now?

Because people younger than age 9 years or older than 65 years are more likely to have skin that is too thin for proper intradermal administration, a dose given to a person in these age ranges should be considered invalid, and the patient should be revaccinated. For people age 9 through 17 years, the dose is considered valid and does not have to be repeated if the clinician is certain that the dose was administered intradermally rather than subcutaneously. If there is any doubt about whether the dose was injected intradermally, it should be repeated.

Is it acceptable to administer a dose of the quadrivalent influenza vaccine to a patient

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Visit IAC's newly designed website for parents, adults, and teens, "Vaccine Information You Need" www.vaccineinformation.org

# Tips and Time-savers for Talking with Parents about HPV Vaccine

Recommend the HPV vaccine series the same way you recommend the other adolescent vaccines. For example, you can say "Your child needs these shots today," and name all of the vaccines recommended for the child's age.

Parents may be interested in vaccinating, yet still have questions. Taking the time to listen to parents' questions helps you save time and give an effective response. CDC research shows these straightforward messages work with parents when discussing HPV vaccine-and are easy for you or your staff to deliver.



**CDC RESEARCH** SHOWS:

The "HPV vaccine is cancer prevention" message resonates strongly with parents. In addition, studies show that a strong recommendation from you is the single best predictor of vaccination.

TRY SAYING:

HPV vaccine is very important because it prevents cancer. I want your child to be protected from cancer. That's why I'm recommending that your daughter/son receive the first dose of HPV vaccine today.

CDC RESEARCH **SHOWS:** 

Disease prevalence is not understood, and parents are unclear about what the vaccine actually protects against.

TRY SAYING:

HPV can cause cancers of the cervix, vagina, and vulva in women, cancer of the penis in men, and cancers of the anus and the mouth or throat in both women and men. There are about 26,000 of these cancers each year—and most could be prevented with HPV vaccine. There are also many more precancerous conditions requiring treatment that can have lasting effects.

CDC RESEARCH SHOWS:

Parents want a concrete reason to understand the recommendation that 11–12 year olds receive HPV vaccine.

TRY SAYING:

We're vaccinating today so your child will have the best protection possible long before the start of any kind of sexual activity. We vaccinate people well before they are exposed to an infection, as is the case with measles and the other recommended childhood vaccines. Similarly, we want to vaccinate children well before they get exposed to HPV.

**CDC RESEARCH** SHOWS:

Parents may be concerned that vaccinating may be perceived by the child as permission to have sex.

TRY SAYING:

Research has shown that getting the HPV vaccine does not make kids more likely to be sexually active or start having sex at a younger age.

**CDC RESEARCH** SHOWS:

Parents might believe their child won't be exposed to HPV because they aren't sexually active or may not be for a long time.

TRY SAYING:

HPV is so common that almost everyone will be infected at some point. It is estimated that 79 million Americans are currently infected with 14 million new HPV infections each year. Most people infected will never know. So even if your son/daughter waits until marriage to have sex, or only has one partner in the future, he/she could still be exposed if their partner has been exposed.

**CDC RESEARCH** SHOWS:

Emphasizing your personal belief in the importance of HPV vaccine helps parents feel secure in their decision.

TRY SAYING:

I strongly believe in the importance of this cancer-preventing vaccine, and I have given HPV vaccine to my son/daughter/grandchild/ niece/nephew/friend's children. Experts (like the American Academy of Pediatrics, cancer doctors, and the CDC) also agree that this vaccine is very important for your child.

CDC RESEARCH SHOWS:

Understanding that the side effects are minor and emphasizing the extensive research that vaccines must undergo can help parents feel reassured.

TRY SAYING:

HPV vaccine has been carefully studied by medical and scientific experts. HPV vaccine has been shown to be very effective and very safe. Like other shots, most side effects are mild, primarily pain or redness in the arm. This should go away quickly, and HPV vaccine has not been associated with any long-term side effects. Since 2006, about 57 million doses of HPV vaccine have been distributed in the U.S., and in the years of HPV vaccine safety studies and monitoring, no serious safety concerns have been identified.

CDC RESEARCH SHOWS:

Parents want to know that HPV vaccine is effective.

TRY SAYING:

In clinical trials of boys and girls, the vaccine was shown to be extremely effective. In addition, studies in the U.S. and other countries that have introduced HPV vaccine have shown a significant reduction in infections caused by the HPV types targeted by the vaccine.

**CDC RESEARCH** SHOWS:

Many parents do not know that the full vaccine series requires 3 shots. Your reminder will help them to complete the series.

TRY SAYING:

I want to make sure that your son/daughter receives all 3 shots of HPV vaccine to give them the best possible protection from cancer caused by HPV. Please make sure to make appointments on the way out, and put those appointments on your calendar before you www.cdc.gov/vaccines/who/teens/for-hcp-tipsheet-hpv.pdf leave the office today!





# Human Papillomavirus – A Parent's Guide to Preteen and Teen HPV Vaccination

# Human Papillomavirus

A Parent's Guide to Preteen and Teen **HPV Vaccination** 



#### Why vaccinate against HPV at 11 or 12 years of age?

- ► The vaccine produces better immu-nity to fight infection when given at younger ages compared with older
- Vaccination for HPV is much more effective at preventing disease and cancer if all three doses are administered before someone's first sexual contact.
- Most American men and women who become sexually active will contract at least one type of HPV virus reduce their risk of HPV infection.
- Most people who become infected with HPV do not even know it.
- ► HPV is easily spread by skin-to-skin contact during sexual activity. Even if someone does not have sexual intercourse, they can still get HPV.
- People who choose to have only one lifetime sex partner can still get HPV if their partner has had previ-ous partners who were infected.
- ▶ Both vaccines have been tested in thousands of people around the world and have been proven to have no serious side effects.
- ► Both vaccines are highly effective against HPV types that cause most cervical cancers; one of the vaccines, Gardasil, also protects against 90 percent of HPV-associated genital

#### What is HPV?

Human papillomavirus (HPV) is a common family of viruses that causes infection of the skin or mucous membranes of various areas of the body. There are over 100 different types of HPV viruses. Different types of HPV infection affect different areas of the body. For instance, some types of HPV cause warts in the genital area and other types can lead to abnormal cells on the cervix, vulva, anus, penis, mouth, and throat, sometimes leading to cancer.

#### How common is HPV?

HPV is very common. According to the Centers for Disease Control and Prevention (CDC), most sexually active American men and women will contract at least one type of HPV virus during their lifetime. HPV is considered the most common sexually transmitted disease in the United States. It is the cause of almost all cervical cancers in women and has been linked to the rise of oral cancers in young people in the United States

#### How serious is HPV?

HPV is extremely serious. Approximately 79 million Americans are currently infected with HPV, and about 14 million more become infected each year. In the United States, there are around 12,000 new cervical cancer cases diagnosed annually, and 4,000 women die from cervical cancer every year. Men are affected too. Around 7,000 HPV-associated cancer cases occur in American men each year.

### How is HPV spread?

The most common ways to get an HPV infection is from vaginal or anal sex with an infected person; however, this is NOT the only way to get HPV. Infection can also be acquired from oral sex and any skin-to-skin contact with areas infected by HPV. It is possible to have HPV and not know it, so a person can unknowingly spread HPV to another person.

continued on page 2 ▶

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HPV vaccine is recommended for all preteens and teens starting at age 11 or 12. Be sure to make a strong recommendation to parents for their children to receive HPV vaccine. A provider's recommendation has been shown to be the most powerful motivator for parent acceptance.

e to Preteen and Teen HPV Vaccination (continued)

page 2 of 2

#### re information

rovider or local

tion Coalition's on website: www. n.org

n Center at the al of Philadelphia: or Children (VFC)

lc.gov/vaccines/ lex.html

etricians and Gynecol-on Adolescent Health Papillomavirus.

ol and Prevention Chronic Disease Pre-tion. HPV and Cancer. r.html

CDC. National Center for Emerging and Zoonotic Infectious Diseases. Vaccine Safety: Human Papillomavirus Vaccine. Ill www.cdc.gov/vaccine safety/Vaccines/HPV/index.html

CDC. National Center for HIV/AIDS, Viral Hepa-titis, STD, and TB Prevention. Genital HPV Infec-tion Fact Sheet. II www.cdc.gov/std/HPV/ STDFact-HPV.htm

CDC. National Center for Immunization and Respiratory Diseases. Preteens and Teens Nee Vaccines Too! ■ www.cdc.gov/Features/Pretee Vaccines

VaCourse.

Reduction in human papillomavirus (HPV) prevalence among young women following HPV vaccine introduction in the United States, Nationa Health and Nutrition Examination Surveys, 2003 2010. J Inflect Dis. 2013 Aug 1; 208(3):385-93.

Talk to your healthcare provider today about protecting your son or daughter from HPV infection!

#### Can HPV infection be treated?

There is no treatment for HPV infection; there are only treatments available for the health problems that HPV can cause, such as genital warts, cervical changes, and cervical cancer In some cases, the body fights off the virus naturally. In cases where the virus cannot be fought off naturally, the body is at risk for serious complications, including cancer.

#### What is HPV vaccine?

There are two HPV vaccines licensed by the Food and Drug Administration (FDA) and recommended by CDC: Cervarix and Gardasil. Both vaccines protect against cervical cancers in women. One vaccine, Gardasil, also protects against genital warts and cancers of the anus, vagina, and vulva. Both vaccines are available for females. Only Gardasil is available for males. HPV vaccines are given in three shots over six months; it is important to get all three doses to get the best protection.

#### At what age should my son or daughter get HPV vaccine?

Routine vaccination with three doses of HPV vaccine is recommended for all 11- and 12-year-old boys and girls. The vaccines can be given as early as 9 years of age. If your son or daughter did not receive the three doses of vaccine at the recommended age, they should still start or complete their HPV vaccine series. Your son can be given the vaccine through the age of 21, and your daughter can be given the vaccine through the age of 26. Check with your healthcare provider to make sure your child is up to date with HPV vaccination.

For HPV vaccine to work best, it is very important for preteens to get all three doses before any sexual activity begins. It is possible to get infected with HPV the very first time they have sexual contact with another person, even if they do not have intercourse. Also, the vaccine produces better immunity to fight infection when given at the younger ages compared to the older ages.

### Are HPV vaccines safe?

HPV vaccines have been shown to be very safe. Every vaccine used in the United States is required to go through rigorous safety testing before licensure by the FDA. Both HPV vaccines have been extensively tested in clinical trials with more than 28,000 male and female participants. Since the first HPV vaccine was licensed for use in 2006, more than 50 million doses of HPV vaccine have been distributed in the United States. Now in routine use, these vaccines are continually monitored for safety.

In the years of HPV vaccine safety monitoring, no serious safety concerns have been identified. Like other vaccinations, most side effects from HPV vaccination are mild, including fever, headache, and pain and redness in the arm where the shot was given.

#### Are HPV vaccines effective?

The vaccines have been shown to be highly effective in protecting against the HPV types targeted by the vaccines. A study looking at HPV infections in girls and women before and after the introduction of HPV vaccines shows a significant reduction in vaccine-type HPV in U.S. teens since the vaccine was introduced

Adapted from a publication developed by the Michigan Department of Community Health, Division of Immunizatio

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This HPV handout is copyright free. Print both pages using the link below, make copies, and give them to your patients' parents.

# Human Papillomavirus -A Parent's Guide to Preteen and **Teen HPV Vaccination:**

www.immunize.org/catg.d/p4250.pdf

# **Checklist for Safe Vaccine Storage and Handling**

# **Checklist for Safe Vaccine Storage and Handling**

Are you doing everything you should to safeguard your vaccine supply?
Review this list to see where you might make improvements in your vaccine management practices. Check each listed item with either [ves] or [vo].

#### **Establish Storage and Handling Policies**

- [YES] NO 1. We have designated a primary vaccine coordinator and at least one alternate coordinator to be in charge of vaccine storage and handling at our facility.
- [VES] NO 2. Both the primary and alternate vaccine coordinator(s) have completely reviewed either CDC's Vaccine Storage & Handling Toolkit (www.cd.gov/vaccines/recs/storage/toolkit/storage-handlingrotoolkit.pdf) on equivalent training materials offered by our state or local health department's immunization program.
- YES NO 3. We have detailed, up-to-date, written policies for general vaccine management, including policies for

routine activities and an emergency lems. Our policies are based on CDC our state or local health department

VES NO 4. We review these policies with all star

### Log In New Vaccine Shi

- We maintain a vaccine inventory log
   a. Vaccine name and number of dos
- VES NO b. Date we received the vaccine
  VES NO c. Condition of vaccine when we re
- YES NO d. Vaccine manufacturer and lot nur
  YES NO e. Vaccine expiration date

# Use Proper Storage Equ

- YES NO 6. We store vaccines in separate, self-co hold-style combination unit, we use i vaccines in a separate stand-alone fr
- YES NO 7. We store vaccines in units with enou
- YES NO 8. We never store any vaccines in a dor the freezer compartment inside the
- 9. We use only calibrated thermometers ("Report of Calibration") and are cal according to the manufacturer's sug
- YES NO 10. We have planned back-up storage ur

\*Certificate of Traceability and Calibration Testing ("R measurements traceable to a laboratory with accredit Accreditation Cooperations (ILAC) Mutual Recognitio

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Are you doing everything you can to safeguard your vaccines?

Checklist for Safe Vaccine Storage and Handling (continued)

page 2 of 3

#### **Ensure Optimal Operation of Storage Units**

- TES NO 11. We have a "Do Not Unplug" sign (e.g., www.immunize.org/catg.d/p2090.pdf) next to the electrical outlets for the refrigerator and freezer and a "Do Not Stop Power" warning label (e.g., www.immunize.org/catg.d/p2091.pdf) by the circuit breaker for the electrical outlets. Both signs include emergency cati information.
- TES NO 12. We perform regular maintenance on our vaccine storage units to assure optimal functioning. For example, we keep the units clean, dusting the coils and cleaning beneath the units every 3–6 months.

#### **Maintain Correct Temperatures**

 $\begin{tabular}{ll} \hline \textbf{ves} & \textbf{NO} \\ \hline \textbf{13.} & \textbf{We always keep at least one accurate calibrated thermometer $(+/-1^{\circ}F_{+}/-0.5^{\circ}C_{|})$ with the vaccines in the refrigerator and a separate calibrated thermometer with the vaccines in the freezer. } \end{tabular}$ 

YES NO

YES NO

- YES NO 14. We use a thermometer that
- TYES NO a. uses an active display to provide continuous monitoring information
- ves NO b. is digital and has a probe in a glyo
- YES NO c. includes an alarm for out-of-range
- VES NO d. has a reset button with a min/max
  ves NO e. is capable of showing the current
- YES NO f. can measure temperatures within g. has a low-battery indicator
- YES NO 15. We maintain the refrigerator temper.
  YES NO 16. We maintain the freezer at an average
- TES NO 17. We keep extra containers of water in where the vegetable bins were located containers in the freezer to help main

#### Maintain Daily Tempera

- TES NO 18. On days when our practice is open, the morning and right before our facthe appropriate log. (See selections
- YES NO 19. We document the minimum and ma each day, preferably in the morning.
- YES NO 20. We consistently record temperatures scales when we record our temperat
- VES NO 21. If the temperature log prompts us to do not attempt to write in the actual
- YES NO 22. We follow the directions on the temp
- storage unit goes out of range.

  YES NO 23. If out-of-range temperatures occur in (www.immunize.org/catg.d/p3041.p and what was done to prevent a recu
- VES NO 24. Trained staff (other than staff design.
- $\fbox{\tiny{\mbox{\scriptsize NO}}}$  25. We keep the temperature logs on file

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Checklist for Safe Vaccine Storage and Handling (continued)

page 3 of 3

### **Store Vaccines Correctly**

- [VES] NO 26. We post signs (e.g., www.immunize.org/catg.d/p3048.pdf) on the doors of the refrigerator and freezer that indicate which vaccines should be stored in the refrigerator and which in the freezer.
- YES NO 27. We do not store any food or drink in any vaccine storage unit.
- TES NO 28. We store vaccines in the middle of the refrigerator or freezer (away from walls and vents), leaving room for air to circulate around the vaccine. We never store vaccine in the doors.
- TES NO 29. We have removed all vegetable and deli bins from the storage unit, and we do not store vaccines in these empty areas
- TES NO 30. If we must use a combination refrigerator-freezer unit, we store vaccines only in the refrigerator section of the unit. We do not place vaccines in front of the cold-air outlet that leads from the freezer to the refrigerator (often near the top shelf). In general, we try to avoid storing vaccines on the top shelf, and we place water bottles in this location.
- TES NO 31. We check vaccine expiration dates and rotate our supply of each type of vaccine so that vaccines with the shortest expiration dates are located close to the front of the storage unit, facilitating easy access.
- YES NO 32. We store vaccines in their original packaging in clearly labeled uncovered containers.

#### Take Emergency Action As Needed

- 33. In the event that vaccines are exposed to improper storage conditions, we take the following steps:
  - a. We restore proper storage conditions as quickly as possible. If necessary, we label the vaccine "Do Not Use" and move it to a unit where it can be stored under proper conditions. We do not discard the vaccine before discussing the circumstances with our state/local health department and/or the appropriate vaccine manufacturers.
- TEE INO b. We follow the Vaccine Storage Troubleshooting Record's (www.immunize.org/catg.d/p3041.pdf)
  instructions for taking appropriate action and documenting the event. This includes recording details
  such as the length of time the vaccine was out of appropriate storage temperatures and the current
  room temperature, as well as taking an inventory of affected vaccines.
- room temperature, as well as taking an inventory of affected vaccines.

  c. We contact our clinic supervisor or other appropriate clinic staff to report the incident. We contact our state/local health department and/or the appropriate vaccine manufacturers for consultation about whether the exposed vaccine can still be used.
- whether the exposed vaccine can still be used.

  We address the storage unit's mechanical or electrical problems according to guidance from the unit's manufacturer or a qualified repair service.
- e. In responding to improper storage conditions, we do not make frequent or large changes in thermostat settings. After changing the setting, we give the unit at least a day to stabilize its temperature.
  - f. We do not use exposed vaccines until our state/local health department's immunization program or the vaccine manufacturer has confirmed that the vaccine is acceptable for use. We review this information with our clinic medical director before returning the vaccine to our supply. If the vaccine is not acceptable for use, we follow our state/local health department instructions for vaccine disposition.

If we answer  $\[ \]$  to all of the above, we give ourselves a pat on the back! If not, we assign someone to implement needed changes!

Technical content reviewed by the Centers for Disease Control and Preventic

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St. Paul, Minnesota • 651-647-9009 • www.immunize.org • www.vaccineinformation.org
www.immunize.org/catg.d/p.3035.pdf • Item #P3035 (10/13)

# Checklist for Safe Vaccine Storage and Handling:

www.immunize.org/catg.d/p3035.pdf

# Do you qualify for the Hepatitis B Birth Dose Honor Roll?

# If so, apply today.

The Immunization Action Coalition (IAC) is recognizing hospitals and birthing centers that have attained 90% or greater coverage rates for administering hepatitis B vaccine at birth and have met specific additional criteria. These criteria define the important elements of written birth dose policies aimed at protecting newborns, including when medical errors occur.

# Criteria for Inclusion into the Honor Roll

To be included in IAC's Hepatitis B Birth Dose Honor Roll, a birthing institution must have:

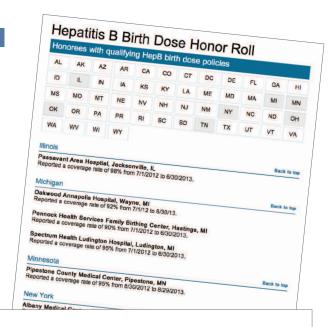
- Achieved, over a 12-month period, a coverage rate of 90% or greater for administering hepatitis B vaccine before hospital discharge to all newborns (regardless of weight), including those whose parents refuse vaccination, and
- Implemented certain written policies, procedures, and protocols to protect all newborns from hepatitis B virus infection prior to hospital discharge.

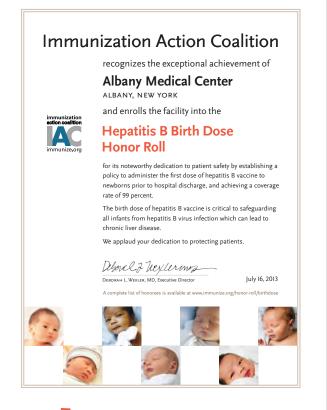
To apply for the Birth Dose Honor Roll, visit

# www.immunize.org/honor-roll/birthdose

### **Benefits**

- Inclusion in online Honor Roll
- Announcement of achievement in nation's largest immunization e-newsletter, IAC Express, sent to approximately
   50,000 subscribers
- Receipt of beautiful 8.5" x 11" color award certificate suitable for framing
- Peer recognition in the immunization community







# The universal hepatitis B vaccine birth dose is supported by leading health organizations

- American Academy of Family Physicians (AAFP)
- American Academy of Pediatrics (AAP)
- American College of Obstetricians and Gynecologists (ACOG)
- Centers for Disease Control and Prevention (CDC)

# First do no harm: Mandatory influenza vaccination policies for healthcare personnel (HCP) help protect patients

View the complete list:

www.immunize.org/honor-roll/influenza-mandates

Refer to the position statements of the leading medical organizations listed below to help you develop and implement a mandatory influenza vaccination policy at your healthcare institution or medical setting. Policy titles, publication dates, links, and excerpts follow.

# American Academy of Family Physicians (AAFP)

AAFP Mandatory Influenza Vaccination of Health Care Personnel (6/11)

▶ www.aafp.org/news-now/health-of-the-public/20110613 mandatoryfluvacc.html

"The AAFP supports annual mandatory influenza immunization for health care personnel (HCP) except for religious or medical reasons (not personal preferences). If HCP are not vaccinated, policies to adjust practice activities during flu season are appropriate (e.g. wear masks, refrain from direct patient care)."

# American Academy of Pediatrics (AAP)

Policy Statement – Recommendation for Mandatory Influenza Immunization of All Health Care Personnel (10/1/10)

▶ http://pediatrics.aappublications.org/cgi/content/abstract/peds. 2010-2376v1

"The implementation of mandatory annual influenza immunization programs for HCP nationwide is long overdue. For the prevention and control of influenza, now is the time to put the health and safety of the patient first."

# American College of Physicians (ACP)

ACP Policy on Influenza Vaccination of Health Care Workers (9/1/10)

www.acponline.org/clinical\_information/resources/adult\_ immunization/flu\_hcw.pdf

"Vaccinating HCWs [healthcare workers] against influenza represents a duty of care, and a standard of quality care, so it should be reasonable that this duty should supersede HCW personal preference."

### American Hospital Association (AHA)

AHA Endorses Patient Safety Policies Requiring Influenza Vaccination of Health Care Workers (7/22/11)

www.aha.org/advocacy-issues/tools-resources/advisory/2011/110722quality-adv.pdf

"To protect the lives and welfare of patients and employees, AHA supports mandatory patient safety policies that require either influenza vaccination or wearing a mask in the presence of patients across healthcare settings during flu season. The aim is to achieve the highest possible level of protection."

### American Medical Directors Association (AMDA)

Mandatory Immunization for Long Term Care Workers (3/11)

▶ www.amda.com/governance/resolutions/J11.cfm

"Therefore be it resolved, AMDA – Dedicated to Long-Term Care Medicine – supports a mandatory annual influenza vaccination for every long-term health care worker who has direct patient contact unless a medical contraindication or religious objection exists."

# American Pharmacists Association (APhA)

Requiring Influenza Vaccination for All Pharmacy Personnel (4/11)

▶ www.pharmacist.com/sites/default/files/files/2011 ActionsoftheAPhAHoD-Public.pdf

"APhA supports an annual influenza vaccination as a condition of employment, training, or volunteering, within an organization that provides pharmacy services or operates a pharmacy or pharmacy department (unless a valid medical or religious reason precludes vaccination)."

# American Public Health Association (APHA)

Annual Influenza Vaccination Requirements for Health Workers (11/9/10)

▶ www.apha.org/advocacy/policy/policysearch/default.htm?id=1410

"Encourages institutional, employer, and public health policy to require influenza vaccination of all health workers as a precondition of employment and thereafter on an annual basis, unless a medical contraindication recognized in national guidelines is documented in the worker's health record."

# Association for Professionals in Infection Control and Epidemiology (APIC)

Influenza Vaccination Should Be a Condition of Employment for Healthcare Personnel, Unless Medically Contraindicated (2/1/11)

▶ www.apic.org/resource\_/tinymcefilemanager/advocacy-pdfs/apic\_ influenza\_immunization\_of\_hcp\_12711.pdf

"As a profession that relies on evidence to guide our decisions and actions, we can no longer afford to ignore the compelling evidence that supports requiring influenza vaccine for HCP. This is not only a patient safety imperative, but is a moral and ethical obligation to those who place their trust in our care."

# Infectious Diseases Society of America (IDSA)

IDSA Policy on Mandatory Immunization of Health Care Workers Against Seasonal and Pandemic Influenza (rev. 7/28/10)

▶ www.idsociety.org/HCW\_Policy

"Physicians and other health care providers must have two special objectives in view when treating patients, namely, 'to do good or to do no harm' (Hippocratic Corpus in Epidemics: Bk. I, Sect. 5, trans. Adams), and have an ethical and moral obligation to prevent transmission of infectious diseases to their patients."

# National Business Group on Health (NBGH)

Hospitals Should Require Flu Vaccination for all Personnel to Protect Patients' Health and Their Own Health (10/18/11)

▶ www.businessgrouphealth.org/pub/f314b0a7-2354-d714-511f-57f12807ba2c

"Hospitals should require flu vaccination for all personnel to protect patients' health and their own health."

### National Patient Safety Foundation (NPSF)

NPSF Supports Mandatory Flu Vaccinations for Healthcare Workers (11/18/09)

▶ www.npsf.org/updates-news-press/press/media-alert-npsf-supports-mandatory-flu-vaccinations-for-healthcare-workers

"NPSF recognizes vaccine-preventable diseases as a matter of patient safety and supports mandatory influenza vaccination of health care workers to protect the health of patients, health care workers, and the community."

# Society for Healthcare Epidemiology of America (SHEA)

Influenza Vaccination of Healthcare Personnel (rev. 8/31/10)

▶ www.journals.uchicago.edu/doi/full/10.1086/656558

"SHEA views influenza vaccination of HCP as a core patient and HCP safety practice with which noncompliance should not be tolerated."

CONTINUED ON PAGE 2 ▶

# Practical resources for vaccinating healthcare personnel against influenza

# U.S. Department of Health and Human Services (HHS)

Influenza Vaccination of Healthcare Personnel, part of HHS' National Action Plan to Prevent Healthcare-Associated Infections: Roadmap to Elimination

▶ www.hhs.gov/ash/initiatives/hai/hcpflu.html

# Centers for Disease Control and Prevention (CDC)

Read the joint HICPAC/ACIP Recommendations Influenza Vaccination of Health-Care Personnel (MMWR, 2/24/06)

▶ www.cdc.gov/mmwr/PDF/rr/rr5502.pdf For more recent guidance from CDC, see Immunization of Health-Care Personnel: Recommendations of the Advisory Committee on Immunization Practices (MMWR, 11/25/11)

- ▶ www.cdc.gov/mmwr/pdf/rr/rr6007.pdf Visit CDC's Influenza web section
- ▶ www.cdc.gov/flu

# American Nurses Association (ANA)

*Unite to Fight the Flu!* tool kit provides a listing of links for staff and patient educational materials, posters, recommendations, and PSAs

▶ www.anaimmunize.org/flutoolkit

Nurse-to-Nurse Influenza Vaccination video uses principles of risk communication to address the concerns of a nurse hesitant to receive influenza vaccine

▶ www.anaimmunize.org/flu-video

# **Colorado Hospital Association**

Guidance for Developing a Mandatory Influenza Vaccination Program. This document is intended to provide guidance and information for developing a mandatory influenza vaccination program within individual hospitals:

➤ www.immunize.org/honor-roll/cha\_guidance \_mandatory\_influenza\_policy\_hcp.pdf

# Immunization Action Coalition of Washington Tool Kit

Make the Case toolkit promotes influenza and Tdap immunization among healthcare providers

www.withinreachwa.org/what-we-do/ healthy-communities/immunizations/ for-providers/health-care-workers-toolkit/

# National Adult and Influenza Immunization Summit (NAIIS)

Co-sponsored by the National Vaccine Program Office, CDC, and the Immunization Action Coalition. Visit the Summit website:

▶ www.izsummitpartners.org

# immunization action coalition immunize.org

### Immunization Action Coalition (IAC)

Visit the IAC's **Influenza Vaccination Honor Roll** to view stellar examples of influenza vaccination mandates in healthcare settings:

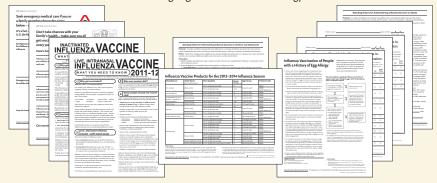
www.immunize.org/honor-roll/influenza-mandates

TOWOR ROT

Visit IAC's Influenza web section: www.immunize.org/influenza

#### Get these IAC print materials online:

- Healthcare Personnel Vaccination Recommendations: www. immunize.org/catg.d/p2017.pdf
- Access Influenza Vaccine Information Statements (VISs) in more than 35 languages: www.immunize.org/vis





Free! Order bulk quantities of Influenza Vaccine Pocket Guides for distribution to healthcare professionals: www.immunize. org/pocketguides How to Administer Intramuscular, Intradermal, and Intranasal Influenza Vaccines: www.immunize.org/catg.d/p2024.pdf

Influenza Vaccine Products for the 2013–14 Influenza Season: www.immunize.org/catg.d/p4072.pdf

Standing Orders for Administering Influenza Vaccine to Adults: www.immunize.org/catg.d/p3074.pdf

Screening Checklist for Contraindications to Inactivated Injectable Influenza Vaccination: www.immunize.org/catg.d/p4066.pdf

Screening Checklist for Contraindications to Live Attenuated Intranasal Influenza Vaccination: www.immunize.org/catg.d/p4067.pdf

Influenza Vaccination of People with a History of Egg Allergy: www.immunize.org/catg.d/p3094.pdf

Declination of Influenza Vaccination (for healthcare worker refusal: www.immunize.org/catg.d/p4068.pdf

### **The Joint Commission**

Titled Influenza Information, this web section provides resources for healthcare institutions, including a free monograph, Providing a Safer Environment for Health Care Personnel and Patients through Influenza Vaccination: Strategies from Research and Practice

► www.jointcommission.org/topics/ hai\_influenza.aspx

### Commentary by Arthur L. Caplan, PhD

Managing the Human Toll Caused by Seasonal Influenza – New York State's Mandate to Vaccinate or Mask (JAMA, 10/1/2013)

► http://jama.jamanetwork.com/article. aspx?articleid=1746248

Why Hospital Workers Should Be Forced to Get Flu Shots

▶ www.medscape.com/viewarticle/770383 (log-in required)

# Screening Checklists for Influenza Vaccination Contraindications

These checklists will help you quickly identify contraindications.

Be sure to screen every time you vaccinate!



Date of birth: Screening Checklist for Contraindications to Inactivated Injectable Influenza Vaccination For adult patients as well as parents of children to be vaccinated: The following questions will help us determine if there is any reason we should not give you or your child inactivated injectable influenza vaccination today. If you answer "yes" to any question, it does not necessarily mean you (or your child) should not be vaccinated. It just means additional questions must be asked. If a question is not clear, please ask your healthcare provider to explain it. 1. Is the person to be vaccinated sick today? 2. Does the person to be vaccinated have an allergy to eggs or to a component of the vaccine? 3. Has the person to be vaccinated ever had a serious reaction to influenza vaccine in the past? 4. Has the person to be vaccinated ever had Guillain-Barré syndrome? Form completed by: \_\_\_\_ Form reviewed by: \_\_\_\_

Immunization Action Coalition \* 1573 Selby Ave. \* St. Paul, MN 55104 \* (651) 647-9009 \* www.immunize.org \* www.vaccineinformation.org

Screening checklist for injectable influenza vaccine: www.immunize.org/catg.d/p4066.pdf

Screening checklist for intranasal influenza vaccine: www.immunize.org/catg.d/p4067.pdf

# Standing Orders for Administering Influenza Vaccine to Children and Adults

#### Standing Orders for Administering Influenza Vaccines to Children and Adolescents

**Purpose:** To reduce morbidity and mortality from influenza by vaccinating all children and adolescents who meet the criteria established by the Centers for Disease Control and Prevention's Advisory Committee on Immunization Practices.

**Policy:** Under these standing orders, eligible nurses and other healthcare professionals (e.g., pharmacists), where allowed by state law, may vaccinate children and adolescents who meet any of the criteria below.

#### Procedure

Identify children and adolescents age 6 months and older who have not completed their influenza vaccination(s) for the current influenza season.

- 2. Screen all patients for contraindications and precautions to influenza vaccine:
  - a. Contraindications: a history of a serious reaction (e.g., anaphylaxis) after a previous dose of influenza vaccine or to an influenza vaccine component. For information on vaccine components, refer to the manufacturer's package insert (www.immunize.org/package-inserts) or go to www.cdc.gov/vaccines/pubs/pinkbook/downloads/appendices/Picxcpient-table-2.pdf. Do not give live attenuated influenza vaccine (LAIV; nasal spray) to people with either an anaphylactic or non-anaphylactic history of hypersensitivity to eggs; pregnant adolescents; children younger than age 2 yrs; children ge 2 through 4 yrs who have experienced wheezing or asthma within the past 12 mos, based on a healthcare provider's statement; children or adolescente in the fronce in pulmonary (including asthma), cardiovascular (excluding hypertension), renal, hepatic, neurologic/neuromuscular, hematologic, or metabolic (e.g., diabetes) disorders; immunosuppression, including that caused by medications or HIV; long-term aspirin therapy (applies to a child or adolescent age 6 mos through 18 yrs).
- child or adolescent age 6 mos through 18 yrs).

  b. Precautions: moderate or severe acute illness with or without fever, history of Guillain-Barré syndrome within 6 weeks of a previous influenza vaccination, for LAIV only, close contact with an immunosuppressed person when the person requires protective isolation, receipt of influenza antivirals (e.g., amantadine, rimantadine, zanamivir, or oseltamivir) within the previous influenza antivirals (e.g., amantadine, rimantadine, zanamivir, or oseltamivir) within the previous results of the previous results
- is biblity of use within 14 days after vaccination.

  Cher considerations: onset of hives only after ingesting eggs: healthcare providers familiar with the potent egg allergy should administer inactivated influenza vaccine (IIV) and observe patient for 30 minutes after resigns of a reaction.
- 3. Provide all patients (or, in the case of a minor, their parent or legal representative) with a copy of the most current mation Statement (VIS). You must document in the patient's medical record or office log, the publication date of was given to the patient (parent/legal representative). Provide non-English speaking patients with a copy of the VI language, if available and preferred; these can be found at www.immunize.org/vis.
- 4. Administer injectable IIV intramuscularly in the vastus lateralis for infants (and toddlers lacking adequate deltoi toid muscle (for toddlers, children, and teens). Use a 22–25 g needle. Choose needle length appropriate to the ch mass: infants 6 through 1 I most: 1°, 1 through 2 yrs: 1–10°, 3 yrs and older: 1–19°. Give 0.25 mL to children 6 to all others age 3 yrs and older. (Note: A 5% needle may be used for patients weighing less that 130 lbs [c60kg deltoid muscle only if the subcutaneous issue is not bunched and the injection is made at a 90-degree angle, 31 children age 2 yrs and older may be given 0.2 mL of intranasal LAIV; 0.1 mL is sprayed into each nostril while upright position. Children age 6 mos through 8 yrs should receive a second dose 4 wks or more after the first dose receiving influenza vaccine for the first time or 2) did not get at least 2 doses of seasonal influenza vaccine isone. Note: CDC has developed an alternative approach that may be used with children who have documented histories (e.g., maintain tries) of influenza vaccine in 2014 –11 the the following: 1) 2 or more doses of seasonal influenza vaccine in 2014 –11 the the following: 1) 2 or more doses of seasonal influenza vaccine given be at least 1 dose of monovalent 2009 H1N1 vaccine; or 3) at least 1 dose of seasonal vaccine given before July 1, 2010, and at leas vaccine since July 1, 2010, 1, 2010.
- 5. Document each patient's vaccine administration information and follow up in the following places:
- as Medical chart: Record the date the vaccine was administered, the manufacturer and lot number, the vaccination the name and title of the person administering the vaccine. If vaccine was not given, record the reason(s) for cine (e.g., medical contraindication, patient refusal).
- b. Personal immunization record card: Record the date of vaccination and the name/location of the administer
- 6. Be prepared for management of a medical emergency related to the administration of vaccine by having a writte protocol available, as well as equipment and medications. To prevent syncope in older children, vaccinate patie seated or lying down and consider observing them for 15 minutes after receipt of the vaccine.
- Report all adverse reactions to influenza vaccine to the federal Vaccine Adverse Event Reporting System (VAE gov or (800) 822-7967, VAERS report forms are available at www.vaers.hbs.gov.

This policy and procedure shall remain in effect for al rescinded or until (date).	l patients of the
Medical Director's signature:	Effective date:
Technical content reviewed by the Centers for Disease Control and Prevention	www.immunize.org/catg.d
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Additional sets of standing orders for all routinely recommended vaccines are available at: www.immunize.org/standing-orders

Download these influenza standing orders and use them "as is" or modify them to suit your work setting.

#### Standing Orders for Administering Influenza Vaccine to Adults

**Purpose:** To reduce morbidity and mortality from influenza by vaccinating all adults who meet the criteria established by the Centers for Disease Control and Prevention's Advisory Committee on Immunization Practices.

**Policy:** Under these standing orders, eligible nurses and other healthcare professionals (e.g., pharmacists), where allowed by state law, may vaccinate patients who meet any of the criteria below.

#### Procedure:

- 1. Identify adults with no history of influenza vaccination for the current influenza season.
- 2. Screen all patients for contraindications and precautions to influenza vaccine:
  - a. Contraindications: a serious systemic or anaphylactic reaction to a prior dose of the vaccine or to any of its components. For a list of vaccine components, go to www.cdc.gov/vaccines/pubs/pinkbook/downloads/appendices/Bl excipient-table-2.pdf. Do not give live attenuated influenza vaccine (LAIV; nasal spray) to a person who has a history of either an anaphylactic or non-anaphylactic hypersensitivity to eggs, who is pregnant, who is age 50 years or older, or who has chronic pulmonary (including asthma), cardiovascular (excluding hypertension), renal, hepatic, neurologic/neuromuscular, hematologic, or metabolic (including diabetes) disorders; immunosuppression, including that caused by medications or HIV.
  - b. Precautions: moderate or severe acute illness with or without fever; history of Guillain Barré syndrome within 6 weeks of a previous influenza vaccination; for LAIV only, close contact with an immunosuppressed person when the person requires protective isolation, receipt of influenza antivirals (e.g., amantadine, rimantadine, zanamivir, or oseltamivir) within the previous 48 hours or possibility of use within 14 days after vaccination.
     c. Other considerations: an egg-free recombinant hemagglutin influenza vaccine (RIV) may be used for people ages 18–49
  - c. Other considerations: an egg-free recombinant hemagglutin influenza vaccine (RIV) may be used for people ages 18-49 years with egg allergies of any severity. People who experience onset of hives only after ingesting eggs may also receive inactivated influenza vaccine (IIV) with the following additional safety measures: 1) administration by a healthcare provider familiar with the potential manifestations of egg allergy and 2) observation for 30 minutes after receipt of the vaccine for signs of a reaction.
- 3. Provide all patients with a copy of the most current federal Vaccine Information Statement (VIS). You must document in the patient's medical record or office log, the publication date of the VIS and the date it was given to the patient. Provide non-English speaking patients with a copy of the VIS in their native language, if available and preferred; these can be found at www.immunize.org/vis.
- 4. Administer influenza vaccine as follows: a) Give 0.5 mL of IIV to adults of all ages, or RIV to adults age 18–49 years, intramuscularly (22–25g, 1–1½" needle) in the deltoid muscle. (Note: A ¾" needle may be used for adults weighing less than 130 lbs [<60 kg] for injection in the deltoid muscle only if the subcutaneous tissue is not bunched and the injection is made at a 90 degree angle.) b) For healthy adults younger than age 50 years, give 0.2 mL of intranasal LAIV; 0.1 mL is sprayed into each nostril while the patient is in an upright position. c) For adults age 18 through 64 years, give 0.1 mL IIV-ID intradermally by inserting the needle of the microinjection system at a 90 degree angle in the deltoid muscle. d) For adults age 65 years and older, give 0.5 mL of high-dose IIV-IM intramuscularly (22–25g, 1–1½" needle) in the deltoid muscle.
- 5. Document each patient's vaccine administration information and follow up in the following places:
- a. Medical chart: Record the date the vaccine was administered, the manufacturer and lot number, the vaccination site and route, and the name and title of the person administering the vaccine. If vaccine was not given, record the reasons(s) for non-receipt of the vaccine (e.g., medical contraindication, patient refusal).
- b. **Personal immunization record card:** Record the date of vaccination and the name/location of the administering clinic.
- 6. Be prepared for management of a medical emergency related to the administration of vaccine by having a written emergency medical protocol available, as well as equipment and medications.
- Report all adverse reactions to influenza vaccine to the federal Vaccine Adverse Event Reporting System (VAERS) at www.vaers.hhs.gov or (800) 822-7967. VAERS report forms are available at www.vaers.hhs.gov.

This policy and procedure shall remain in effect for all patients of the	
rescinded or until (date).	(name of practice or clinic)
Medical Director's signature:	Effective date:
Technical content reviewed by the Centers for Disease Control and Prevention	www.immunize.org/catg.d/p3074.pdf • Item #P3074 (9/13)
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# Guides for determining the number of doses of influenza vaccine to give to children age 6 months through 8 years during the 2013–2014 influenza season

**ALGORITHM** GUIDE

Has the child ever received influenza vaccine?



Did the child receive 2 or more doses of seasonal influenza vaccine since July 1, 2010?



Give 1 dose of 2013–2014 influenza vaccine this season.

NOT NOT SURE

Give 2 doses of 2013–2014 influenza vaccine this season, spaced at least 4 weeks apart.

#### **TABLE GUIDE**

Number of doses of influenza vaccine received since July 1, 2010	Number of doses recommended for the 2013-14 season	
none or unknown	2	
1	2	
2	1	

**Note:** CDC has developed an alternative approach that may be used with children who have documented histories (e.g., maintained in electronic registries) of influenza vaccination prior to the 2010–11 season. With this approach, children age 6 months through 8 years need only 1 dose of vaccine in 2013–14 if they have received any of the following: 1) 2 or more doses of seasonal influenza vaccine since July 1, 2010; 2) at least 2 doses of seasonal vaccine given before July 1, 2010 and at least 1 dose of monovalent 2009 H1N1 vaccine; or 3) at least 1 dose of seasonal vaccine given before July 1, 2010 and at least 1 dose of seasonal vaccine since July 1, 2010. All other children age 6 months through 8 years should receive 2 doses of 2013–14 vaccine.

Technical content reviewed by the Centers for Disease Control and Prevention

# Influenza Vaccination of People with a History of Egg Allergy

- Persons with a history of egg allergy who have experienced only hives after exposure to egg should receive influenza vaccine. Because relatively few data are available for use of LAIV in this setting, IIV or RIV should be used. RIV is egg-free and may be used for persons aged 18–49 years who have no other contraindications. However, IIV (egg- or cell-culture based) also may be used, with the following additional safety measures (see figure in column to right)
  - a) Vaccine should be administered by a healthcare provider who is familiar with the potential manifestations of egg allergy; and
  - b) Vaccine recipients should be observed for at least 30 minutes for signs of a reaction after administration of each vaccine dose.<sup>1</sup>
- Other measures, such as dividing and administering the vaccine by a two-step approach and skin testing with vaccine, are not necessary.<sup>1</sup>
- 3. Persons who report having had reactions to egg involving such symptoms as angioedema, respiratory distress, lightheadedness, or recurrent emesis; or who required epinephrine or another emergency medical intervention, particularly those that occurred immediately or within a short time (minutes to hours) after egg exposure, are more likely to have a serious systemic or anaphylactic reaction upon reexposure to egg proteins. These persons may receive RIV3, if aged 18 through 49 years and there are no other contraindications. If RIV3 is not available or the recipient is not within the indicated age range, such persons should be referred to a physician with expertise in the management of allergic conditions for further risk assessment before receipt of vaccine (see figure in column to right).
- 4. All vaccines should be administered in settings in which personnel and equipment for rapid recognition and treatment of anaphylaxis are available. ACIP recommends that all vaccination providers should be familiar with the office emergency plan.<sup>2</sup>
- 5. Some persons who report allergy to egg might not be egg-allergic. Those who are able to eat lightly cooked egg (e.g., scrambled egg) without reaction are unlikely to be allergic. Egg-allergic persons might tolerate egg in baked products (e.g., bread or cake). Tolerance to egg-containing foods does not exclude the possibility of egg allergy.<sup>3</sup> Egg allergy can be confirmed by a consistent medical history of adverse reactions to eggs and egg-containing foods, plus skin and/or blood testing for immunoglobulin E antibodies to egg proteins.
- 6. For individuals who have no known history of exposure to egg, but who are suspected of being egg-allergic on the basis of previously performed allergy testing, consultation with a physician with expertise in the management of allergic conditions should be obtained before vaccination (see figure in column to right). Alternatively, RIV3 may be administered if the recipient is aged 18 through 49 years.
- 7. A previous severe allergic reaction to influenza vaccine, regardless of the component suspected to be responsible for the reaction, is a contraindication to future receipt of the vaccine.

"Recommendations: Prevention and Control of Seasonal Influenza with Vaccines: Recommendations of the ACIP-U.S., 2013–2014" at www.cdc.gov/mmwr/pdf/rr/rr6207.pdf.

Recommendations regarding influenza vaccination of persons who report allergy to eggs: ACIP, United States, 2013–14 influenza season.

Can the person eat lightly cooked egg (e.g., scrambled egg) without reaction?\*\*



Administer vaccine per usual protocol.



After eating eggs or egg-containing foods, does the person experience ONLY hives?



Administer RIV3 (if patient aged 18 through 49 years); or administer IIV to any patient for whom IIV is indicated and observe for reaction for at least 30 minutes after vaccination.



After eating eggs or eggcontaining foods, does the person experience other symptoms such as

- Cardiovascular changes (e.g., hypotension)?
- Respiratory distress (e.g., wheezing)?
- Gastrointestinal symptoms (e.g., nausea/vomiting)?
- Reaction requiring epinephrine?
- Reaction requiring emergency medical attention?



Administer RIV3 (if patient aged 18 through 49 years) or refer to a physician with expertise in management of allergic conditions for further evaluation.

\* Individuals with egg allergy might tolerate egg in baked products (e.g., bread or cake). Tolerance to egg-containing foods does not exclude the possibility of egg allergy. For individuals who have no known history of exposure to egg, but who are suspected of being egg-allergic on the basis of previously performed allergy testing, consultation with a physician with expertise in the management of allergic conditions should be obtained prior to vaccination. Alternatively, RIV3 may be administered if the recipient is aged 18 through 49 years.

#### **ABBREVIATIONS**

LAIV = Live attenuated influenza vaccine IIV = Inactivated Influenza Vaccine RIV3 = Recombinant Influenza Vaccine, Trivalent

### REFERENCES

- Kelso JM, Greenhawt MJ, Li JT, Niclas RA, Bernstein DI, Blessing-Moore J, et al. Adverse reactions to vaccines practice parameter 2012 update. J Clin All Immunol. 2012 |ul;130(1):25–43.
- CDC. General recommendations on immunization: recommendations of the ACIP. MMWR 2011;60 (No. RR-2).
- Erlewyn-Lajeunesse M, Brathwaite N, Lucas JS, Warner JO. Recommendations for the administration of influenza vaccine in children allergic to eff. BMJ. 2009;339:b3680.

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Seek emergency medical care if you or a family member shows the signs below – a life could be at risk!

It's a fact – every year, people of all ages in the U.S. die from influenza and its complications.



# Emergency warning signs for children or teens with influenza

Any child or teen who shows the following emergency warning signs needs urgent medical attention – take them to an emergency room or call 9-1-1.

- · Fast breathing or trouble breathing
- Bluish skin color
- · Not waking up or not interacting
- Being so irritable that the child does not want to be held
- · Not drinking enough fluids
- · Not urinating or no tears when crying
- · Severe or persistent vomiting
- Influenza-like symptoms improve but then return with fever and worse cough

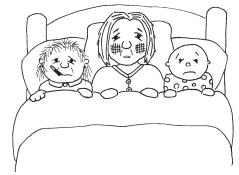
# Emergency warning signs for adults with influenza

Any adult who shows the following emergency warning signs needs urgent medical attention – take them to an emergency room or call 9-1-1.

- · Difficulty breathing or shortness of breath
- Pain or pressure in the chest or abdomen
- Confusion
- · Severe or persistent vomiting
- Sudden dizziness
- Influenza-like symptoms improve but then return with fever and worse cough

Keep this handy! Post it on your refrigerator or another place where it will be easy to find!

# Don't take chances with your family's health - make sure you all get vaccinated against influenza every year!



# Here's how influenza can hurt your family...

Influenza can make you, your children, or your parents really sick.

Influenza usually comes on suddenly. Symptoms can include high fever, chills, headaches, exhaustion, sore throat, cough, and all-over body aches. Some people say, "It felt like a truck hit me!" Symptoms can also be mild. Regardless, when influenza strikes your family, the result is lost time from work and school.

Influenza spreads easily from person to person.

An infected person can spread influenza when they cough, sneeze, or just talk near others. They can also spread it by touching or sneezing on an object that someone else touches later. And, an infected person doesn't have to feel sick to be contagious: they can spread influenza to others when they feel well – before their symptoms have even begun.

Influenza and its complications can be so serious that they can put you, your children, or your parents in the hospital or lead to death.

Each year, more than 200,000 people are hospitalized in the U.S. from influenza and its complications. Between 3,000 and 50,000 die, which shows how unpredictable influenza can be. The people most likely to be hospitalized and die are infants, young children, older adults, and people of all ages who have conditions such as heart or lung disease. But remember, it's not only the youngest, oldest, or sickest who die: Every year influenza kills people who were otherwise healthy.

Influenza can be a very serious disease for you, your family, and friends - but you can all be protected by getting vaccinated.

There's no substitute for yearly vaccination in protecting the people you love from influenza. Either type of influenza vaccine (the "shot" or nasal spray) will help keep you and your loved ones safe from a potentially deadly disease. Get vaccinated every year, and make sure your children and your parents are vaccinated, too.

# Get vaccinated every year! Get your children vaccinated! Be sure your parents get vaccinated, too!

# Influenza Vaccine Products for the 2013-2014 Influenza Season

Manufacturer	Trade Name (vaccine abbreviation) <sup>1</sup>	How Supplied	Mercury Content (μg Hg/0.5mL)	Age Group	Product Code
CSL Limited	Afluria (IIV3)	0.5 mL (single-dose syringe)	0		90656
		5.0 mL (multi-dose vial)	24.5	9 years & older <sup>2</sup>	90658 Q2035 (Medicare)
GlaxoSmithKline	Fluarix (IIV3)	0.5 mL (single-dose syringe)	0	3 years & older	90656
	Fluarix (IIV4)	0.5 mL (single-dose syringe)	0	3 years & older	90686
ID Biomedical Corp. of Quebec, a subsidiary of GlaxoSmithKline FluLaval (IIV4)	FluLaval (IIV3)	5.0 mL (multi-dose vial)	<25	3 years & older	90658 Q2036 (Medicare)
	FluLaval (IIV4)	5.0 mL (multi-dose vial)	<25	3 years & older	90688
MedImmune	FluMist (LAIV4)	0.2 mL (single-use nasal spray)	0	2 through 49 years	90672
	Fluvirin (IIV3)	0.5 mL (single-dose syringe)	≤1	4 years & older	90656
Novartis		5.0 mL (multi-dose vial)	25		90658 Q2037 (Medicare)
	Flucelvax (ccIIV3)	0.5 mL (single-dose syringe)	0	18 years & older	90661
Protein Sciences Corp.	Flublok (RIV3)	0.5 mL (single-dose vial)	0	18 through 49 years	90673 Q2033 (Medicare)
	Fluzone (IIV3)	0.25 mL (single-dose syringe)	0	6 through 35 months	90655
		0.5 mL (single-dose syringe)	0	3 years & older	90656
		0.5 mL (single-dose vial)	0	3 years & older	90656
sanofi pasteur  Fluzone (IIV4)		5.0 mL (multi-dose vial)	25	6 through 35 months	90657
		5.0 mL (multi-dose vial)	25	3 years & older	90658 Q2038 (Medicare)
	Fluzone (IIV4)	0.25 mL (single-dose syringe)	0	6 through 35 months	90685
		0.5 mL (single-dose syringe)	0	3 years & older	90686
		0.5 mL (single-dose vial)	0	3 years & older	90686
	Fluzone High-Dose (IIV3)	0.5 mL (single-dose syringe)	0	65 years & older	90662
	Fluzone Intradermal (IIV3)	0.1 mL (single-dose microinjection system)	0	18 through 64 years	90654

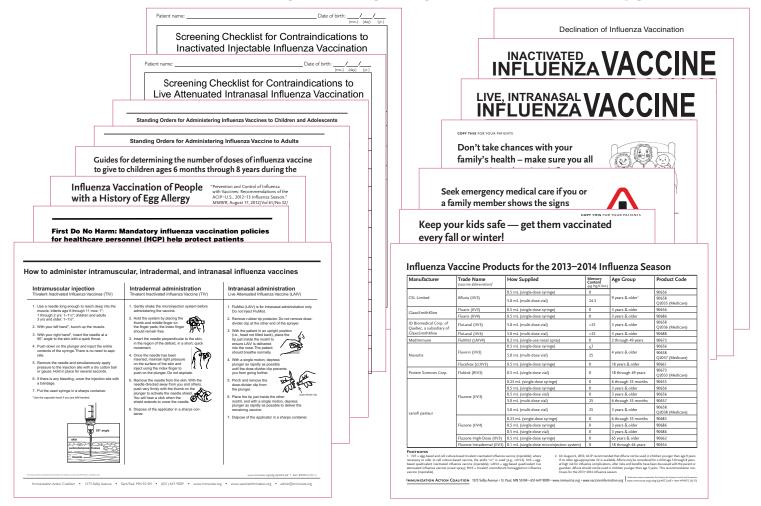
#### **FOOTNOTES**

<sup>1.</sup> IIV3 = egg-based and cell culture-based trivalent inactivated influenza vaccine (injectable); where necessary to refer to cell culture-based vaccine, the prefix "cc" is used (e.g., ccIIV3). IIV4 = eggbased quadrivalent inactivated influenza vaccine (injectable); LAIV4 = egg-based quadrivalent live attenuated influenza vaccine (nasal spray); RIV3 = trivalent recombinant hemagglutinin influenza vaccine (injectable).

<sup>2.</sup> On August 6, 2010, ACIP recommended that Afluria not be used in children younger than age 9 years. If no other age-appropriate IIV is available, Afluria may be considered for a child age 5 through 8 years at high risk for influenza complications, after risks and benefits have been discussed with the parent or guardian. Afluria should not be used in children younger than age 5 years. This recommendation continues for the 2013-2014 influenza season.

# **Influenza Education Materials for Patients & Staff**

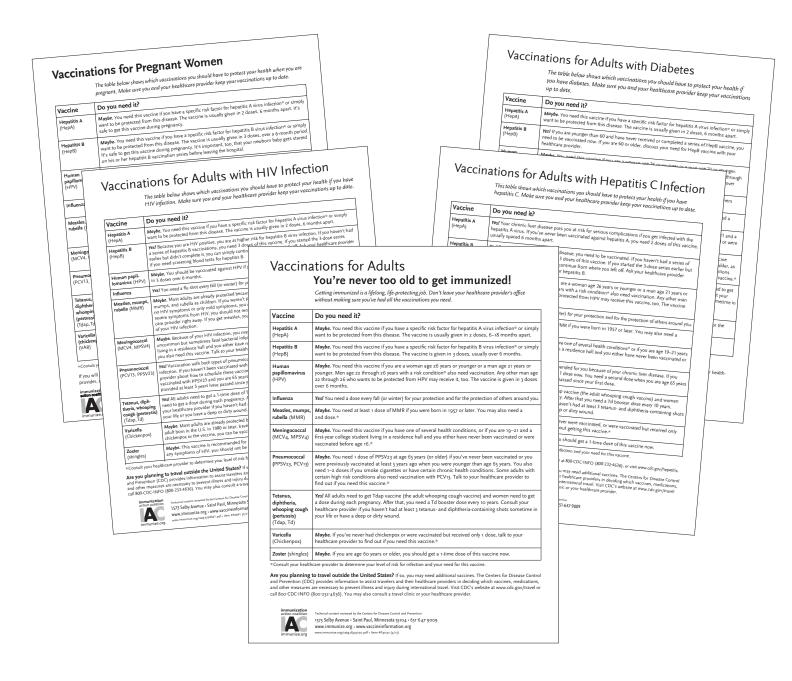
Free and CDC-reviewed, they're ready for you to download, copy, and use!



# For 8-1/2" x 11" copies of the pieces above, visit IAC's website: www.immunize.org

- 1. Screening checklist for contraindications to inactivated injectable influenza vaccination: www.immunize.org/catg.d/p4066.pdf
- 2. Screening checklist for contraindications to live attenuated intranasal influenza vaccination: www.immunize.org/catg.d/p4067.pdf
- Standing orders for administering influenza vaccines to children and adolescents: www.immunize.org/catg.d/p3074a.pdf
- 4. Standing orders for administering influenza vaccine to adults: www.immunize.org/catg.d/p3074.pdf
- Guides for determining number of doses of influenza vaccine for children 6 months through 8 years: www.immunize.org/catg.d/p3093.pdf
- 6. Influenza vaccination of people with a history of egg allergy: www.immunize.org/catg.d/p3094.pdf
- 7. First do no harm: Mandatory influenza vaccination policies for HCP help protect patients: www.immunize.org/catg.d/p2014.pdf
- 8. How to administer intramuscular, intradermal, and intranasal influenza vaccines: www.immunize.org/catg.d/p2024.pdf
- 9. Declination of influenza vaccination (for healthcare personnel refusal): www.immunize.org/catg.d/p4068.pdf
- 10. Federally required Vaccine Information Statements in English and other languages: www.immunize.org/vis
  - Inactivated Influenza Vaccine: www.immunize.org/vis/flu\_inactive.pdf
  - Live, Intranasal Influenza Vaccine: www.immunize.org/vis/flu\_live.pdf
- 11. Don't take chances with your family's health—make sure you all get vaccinated against influenza: www.immunize.org/catg.d/p4069.pdf
- 12. Seek emergency medical care if you or a family member shows the signs below: www.immunize.org/catg.d/p4073.pdf
- 13. Keep your kids safe—get them vaccinated every fall or winter! www.immunize.org/catg.d/p4070.pdf
- 14. Influenza vaccine products for the 2013–14 influenza season: www.immunize.org/catg.d/p4072.pdf

# Patient Schedules for All Adults and for High-Risk Adults These documents are ready for you to download, copy, and use!



Vaccinations for Pregnant Women: www.immunize.org/catg.d/P4040.pdf

Vaccinations for Adults with HIV Infection: www.immunize.org/catg.d/P4041.pdf

Vaccinations for Adults: You're never too old to get immunized!: www.immunize.org/catg.d/P4030.pdf

Vaccinations for Adults with Diabetes: www.immunize.org/catg.d/P4043.pdf

Vaccinations for Adults with Hepatitis C: www.immunize.org/catg.d/P4042.pdf

IAC's "Ask the Experts" team from CDC











Iyabode Akinsanya-Beysolow, MD, MPH

### who has already received the trivalent vaccine? We've had a few patients request this.

No. ACIP does not recommend that anyone receive more than one dose of influenza vaccine in a season, except for certain children age 6 months through 8 years for whom two doses are recommended.

Sometimes patients age 65 years and older who have received the standard-dose influenza vaccine hear about the high-dose product (Fluzone High-Dose, sanofi) and want to receive that, too. Is this okay to administer?

No. ACIP does not recommend that anyone receive more than one dose of influenza vaccine in a season except for certain children age 6 months through 8 years for whom two doses are recommended.

Would giving an older patient 2 doses of standard-dose influenza vaccine be the same as administering the high-dose product? No, and this is not recommended.

#### How soon after bone marrow transplant do we start to vaccinate our patients against influenza?

Inactivated influenza vaccine should be administered beginning at least 6 months after bone marrow transplant and annually thereafter for the life of the patient. A dose of inactivated influenza vaccine can be given as early as 4 months after transplant, but a second dose should be considered in this situation. A second dose is recommended routinely for all children receiving influenza vaccine for the first time.

For more information about vaccination of people who receive hematopoietic stem cell transplantation, visit this CDC web page: www.cdc.gov/ vaccines/pubs/hemato-cell-transplts.htm.

# Tdap and Td vaccines

When should adolescents who received a dose of Tdap (tetanus-diphtheria, pertussiscontaining vaccine; Adacel, sanofi; Boostrix, GSK) at age 11-12 years receive their next dose of Td or Tdap?

Currently, ACIP recommends only one lifetime dose of Tdap for everyone with the exception of pregnant women for whom a dose is recommended during each pregnancy. Someone who received a dose of Tdap at age 11 or 12 should receive a booster dose of Td vaccine ten years later, unless tetanus prophylaxis is required sooner due to an

# Meningococcal vaccine

Please describe the new Advisory Committee on Immunization Practices (ACIP) vote recommending the use of the meningococcal vaccine Menveo in high-risk children 2 through 23 months of age.

On October 23, the ACIP voted to recommend the use of Menveo (MCV4-CRM, Novartis) in highrisk children 2 through 23 months of age. Previously, the FDA had licensed the use of Menveo in children 2 years of age or older, but the agency expanded licensure to the 2 through 23 months age group on August 1. Three meningococcal conjugate vaccines are now approved and recommended for certain high-risk children: MenHibrix (Hib-MenCY, GSK) for children 6 weeks through 18 months of age, Menveo for children 2 months and older, and Menactra (MCV4-D, sanofi) for children 9 months and older.

Why is it recommended to delay meningococcal vaccination for infants with functional or anatomic asplenia until after the PCV13 (pneumococcal conjugate vaccine, Prevnar, Pfizer) series is completed?

Although people with anatomic or functional asplenia also appear to be at increased risk for meningococcal disease, the data are less compelling than data that demonstrate the increased risk for pneumococcal disease in patients with asplenia (see page 6 of Prevention and Control of Meningococcal Disease: Recommendations of the Advisory Committee on Immunization Practices [ACIP], www.cdc.gov/mmwr/pdf/rr/rr6202.pdf). Data show that the MCV4-D vaccine (Menactra, sanofi) may interfere with the immunologic response to PCV13 if these two vaccines are given too close together. Therefore, ACIP recommends that MCV4-D not be administered until at least 4 weeks after completion of the age-appropriate PCV13 series. MCV4-CRM (Menveo, Novartis) and Hib-MenCY (MenHibrix, GSK) do not affect the immune response to PCV13, so these vaccines may be given at any time before or after PCV13 doses.

# Polio vaccine

We frequently see children (mostly from certain foreign countries) who have received 6 or more doses of polio vaccine, all administered before age 4 years. How do we handle this when assessing the child's immunization

Because it is common practice in many developing countries to administer oral polio vaccine to children during both routine visits and periodic nationwide vaccination campaigns, a child's record may indicate more than 4 doses. Depending on the timing, some of these doses may be invalid according to the U.S. immunization schedule. To be counted as valid, the doses should all be given after age 6 weeks and be separated from each other by at least 4 weeks. If the history is of a complete series of inactivated polio vaccine (IPV) (unlikely given the context), at least one dose should be administered on or after age 4 years and at least 6 months after the previous dose. If a complete series cannot be identified that meet these criteria, then the child should receive as many doses of IPV as needed to complete the U.S. recommended schedule.

# Pneumococcal poly. vaccine

Pneumococcal polysaccharide vaccine (PPSV, Pneumovax, Merck) is recommended for people with diabetes. Does this include gestational diabetes?

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