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NEEDLE TIPS

from the Immunization Action Coalition — www.immunize.org

What's In This Issue

Immunization questions?

- Email nipinfo@cdc.gov
- Call your state health department (phone numbers at www.immunize.org/coordinators)

What's New in the Influenza Vaccination Recommendations for the 2016–17 Season

On August 26, CDC's Advisory Committee on Immunization Practices (ACIP) recommendations for influenza vaccination for the 2016–17 season were published in *Morbidity and Mortality Weekly Report, Recommendations and Reports*, Vol 65, No.5, available at www.cdc.gov/mmwr/volumes/65/rr/pdfs/rr6505.pdf.

ACIP continues to recommend routine annual influenza vaccination for all persons 6 months of age and older who do not have a contraindication for vaccination.

Two important new recommendations were made for the 2016–17 season.

■ **Live attenuated influenza vaccine (LAIV, FluMist, AstraZeneca) is not recommended to be used in any setting during the 2016–17 influenza season.** This recommendation was made because of evidence of low vaccine effectiveness among children 2 through 17 years of age against the H1N1 strain of influenza virus during the 2013–14 and 2015–16 seasons. Only inactivated or recombinant influenza vaccines should be used during the 2016–17 influenza season.

■ **A history of egg allergy is no longer considered to be a contraindication or precaution to influenza vaccination.** Multiple studies have found that severe allergic reactions to egg-based influenza vaccines in persons with egg allergy are unlikely. For the 2016–17 influenza season, ACIP recommends that people with a history of egg allergy who have experienced only hives after exposure to egg should receive any inactivated influenza vaccine without specific precautions (except for the recommended 15-minute observation period for syncope for any vaccine). People who report having had an anaphylactic reaction to egg may also receive any age-appropriate influenza vaccine. For individuals who have an anaphylactic reaction to eggs that is more than hives, the vaccine should be administered in a medical setting such as a hospital, clinic, health department, or physician office. Vaccine administration should be supervised by a healthcare provider who is able to recognize and manage severe allergic conditions. More information on influenza vaccination and egg allergy is available from the Immunization Action Coalition (IAC) as a staff education sheet titled "Influenza Vaccination of People with a History of Egg Allergy" at www.immunize.org/catg.d/p3094.pdf. ✦

Ask the Experts

The Immunization Action Coalition extends thanks to our experts, medical officer Andrew T. Kroger, MD, MPH, and nurse educator Donna L. Weaver, RN, MN, both with the National Center for Immunization and Respiratory Diseases at the Centers for Disease Control and Prevention (CDC).

Influenza vaccines

Which influenza vaccines will be available during the 2016–17 influenza season?

Multiple manufacturers are producing influenza vaccine for the U.S. market for the 2016–17 season. Inactivated and recombinant (inactivated) vaccines will be produced using egg-based, cell culture-based, and recombinant technologies. Some of the inactivated influenza vaccines will be quadrivalent (contain four strains of influenza virus) rather than trivalent (three strains). Live attenuated influenza vaccine (LAIV, FluMist, AstraZeneca) is expected to be available but is not recommended to be used during the 2016–17 season (see next question). A complete listing of influenza vaccine products is available from the Immunization Action Coalition (IAC) at www.immunize.org/catg.d/p4072.pdf.

Why did CDC's Advisory Committee on Immunization Practices (ACIP) recommend that LAIV not be used during the 2016–17 season?

This recommendation was made because of evidence of low vaccine effectiveness among children 2 through 17 years of age against the H1N1 strain of influenza virus during the 2013–14 and 2015–16 seasons. The reason for this lack of effectiveness of LAIV is not known. Only inactivated or recombinant influenza vaccines should be used during the upcoming influenza season. Details about this recommendation are available on pages 14–17 of the 2016–17 ACIP influenza recommendations online at www.cdc.gov/mmwr/volumes/65/rr/pdfs/rr6505.pdf.

With the ACIP recommendation to not use LAIV during the 2016–17 season, will there be

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Needle Tips

online at www.immunize.org/nt

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IAC, a 501(c)(3) charitable organization, publishes practical immunization information for healthcare professionals to help increase immunization rates and prevent disease.

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IAC maintains strict editorial independence in its publications.

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enough inactivated influenza vaccine (IIV) to meet the demand for the upcoming season?

Influenza vaccine manufacturers project that as many as 157–168 million doses of IIV will be available for the 2016–17 season. Based on these projections, health officials expect that supply of IIV for the 2016–17 season should be sufficient to meet any increase in demand resulting from the ACIP recommendations, though providers may need to check vaccine availability with more than one supplier or purchase a vaccine brand in addition to the one they normally select.

I know that LAIV is not recommended to be used this season. If a dose of LAIV is administered this season, is it a valid dose, or should we repeat it with IIV?

The dose can be counted. It does not need to be repeated with IIV.

Please tell me about Fluad, the new influenza vaccine for people age 65 years and older.

In November 2015, the Food and Drug Administration (FDA) licensed Fluad (Seqirus), a trivalent, MF59-adjuvanted inactivated influenza vaccine, for people age 65 years and older. Fluad is the first adjuvanted influenza vaccine marketed in the U.S. An adjuvant is a substance added to a vaccine to increase its immunogenicity. The MF59 adjuvant is based on squalene, an oil that occurs naturally in many plants and animals. Fluad has been used in Europe since 1997 and is approved in 38 other countries. In contrast to Fluzone High-Dose (Sanofi Pasteur), Fluad is a standard-dose vaccine, containing 15 mcg of hemagglutinin per dose.

In clinical studies, Fluad was more effective than standard-dose unadjuvanted vaccine in preventing laboratory-confirmed influenza in elderly people. Fluad recipients reported more local reactions, such as injection site pain (25% versus 12%) and tenderness (21% versus 11%), than were reported by recipients of an unadjuvanted IIV.

Who is recommended to receive vaccination against influenza?

ACIP recommends annual vaccination for all people age 6 months and older who do not have a contraindication to the vaccine.

When should influenza vaccine be administered?

You can begin administering vaccine as soon as it becomes available. Early vaccination of children younger than age 9 years who need 2 doses can be helpful in assuring routine second doses are given before the influenza season begins.

We have noticed that ACIP recommends that we begin vaccinating with seasonal influenza vaccine in September or even earlier. Does protection from seasonal influenza vaccine decline or wane within 3 or 4 months of vaccination? Should I wait until later in the year to vaccinate my elderly or medically frail patients?

ACIP recommends that to avoid missed opportunities for vaccination, providers should offer vaccination during routine healthcare visits and hospitalizations as soon as vaccine becomes available. Antibody to inactivated influenza vaccine declines in the months following vaccination. A study conducted during the 2011–12 influenza season (*Euro Surveill* 2013;18: 20388) found a decline in vaccine effectiveness late in influenza season, primarily affecting persons age 65 years and older. While delaying vaccination might permit greater immunity later in the season, deferral could result in missed opportunities to vaccinate, as well as difficulties in vaccinating a large number of people within a more limited time period. Vaccination programs should balance maximizing the likelihood of persistence of vaccine-induced protection through the season with avoiding missed opportunities to vaccinate or vaccinating after influenza virus circulation begins. Revaccination later in the season of people who have already been fully vaccinated is not recommended.

Some of my patients refuse influenza vaccination because they insist they "got the flu" after receiving the injectable vaccine in the past. What can I tell them?

There are several reasons why this misconception persists:

- Less than 1% of people who are vaccinated with the injectable vaccine develop flu-like symptoms, such as mild fever and muscle aches, after vaccination. These side effects are not the same as having influenza, but people confuse the symptoms.
- Protective immunity doesn't develop until 1–2 weeks after vaccination. Some people who get vaccinated later in the season (December or later) may be infected with influenza virus shortly afterward. These late vaccinees develop influenza because they were exposed to someone with the virus before they became immune. It is not the result of the vaccination.

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IAC's "Ask the Experts" team from the Centers for Disease Control and Prevention

Andrew T. Kroger, MD, MPH

Donna L. Weaver, RN, MN

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- To many people "the flu" is any illness with fever and cold symptoms or gastrointestinal symptoms. If they get any viral illness, they may blame it on the vaccine or think they got "the flu" despite being vaccinated. Influenza vaccine only protects against certain influenza viruses, not all viruses.
- The influenza vaccine is not 100% effective, especially in older persons. For more information on this topic, go to www.cdc.gov/flu/professionals/vaccination/effectivenessqa.htm.

Is a Vaccine Information Statement (VIS) only recommended or is it mandatory when administering influenza vaccine?

The use of a VIS for influenza vaccine given to any child or adult is mandatory under the National Vaccine Injury Compensation Program. Two VISs are available, one for LAIV (although LAIV is not recommended to be used during the 2016–2017 season) and one for IIV. Each can be found at www.immunize.org/vis along with many translations. Beginning in the 2015–16 influenza season, the influenza VIS was modified so that it does not need to be replaced each year. The 2015–16 VIS can be used during the 2016–17 season.

We are trying to provide influenza vaccination to all eligible patients during their stay in our hospital. If a patient does not remember if he or she has already received the vaccine this season, should we go ahead and vaccinate?

If a patient or family member cannot remember if the patient received influenza vaccine this season and no record is available, proceed with administering influenza vaccine, even if it might mean an extra dose is given. When a patient reports that they HAVE received influenza vaccine but does not have written documentation, ACIP states that in the specific case of influenza (and pneumococcal polysaccharide) vaccination, patient self-report of being vaccinated should be accepted as evidence of vaccination.

Which children younger than age 9 years will need 2 doses of influenza vaccine in this influenza season?

Children age 6 months through 8 years should receive a second dose 4 weeks or more after the first dose if they 1) are receiving influenza vaccine for the first time, or 2) did not receive a total of at least two doses of trivalent or quadrivalent influenza vaccine before July 1, 2016, or 3) if the child's vaccination history is unknown. The two doses need not have been received during the same season or consecutive seasons.

For more details about the ACIP recommendations for which children need two doses, see www.cdc.gov/mmwr/volumes/65/rr/pdfs/rr6505.pdf, page 28.

You can also find this information in IAC's handout titled "Guide for Determining the Number of Doses of Influenza Vaccine to Give to Children Ages 6 Months Through 8 Years." It is available at www.immunize.org/catg.d/p3093.pdf.

When determining whether a child age 2 through 8 years needs one or two doses of influenza vaccine this season, can we count doses of LAIV administered in past years? We were not sure because LAIV is not recommended this year.

Doses of LAIV administered in past seasons can be counted.

If a child receives influenza vaccine at age 34 or 35 months for the first time (0.25 mL dose) and then returns for the second dose at age 37 months, should we give another 0.25 mL dose or should we give the 0.5 mL dose that is indicated for ages 3 and older?

The child should always receive the dose appropriate for his or her age at the time of the clinic visit; at age 37 months that would be 0.5 mL.

What is the latest ACIP guidance on influenza vaccination and egg allergy?

ACIP revised its guidance on vaccination of persons with egg allergy for the 2016–17 season. ACIP recommends that people with a history of egg allergy who have experienced only hives after exposure to egg should receive any inactivated influenza vaccine without specific precautions (except a 15-minute observation period for syncope). People who report having had an anaphylactic reaction to egg (more severe than hives) may also receive any age-appropriate influenza vaccine. The vaccine for those individuals should be administered in a medical setting (such as a health department or physician office). Vaccine administration should be supervised by a healthcare provider who

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is able to recognize and manage severe allergic conditions. Although not specifically recommended by ACIP, providers may prefer an egg-free recombinant vaccine (RIV) for people age 18 years and older with severe egg allergy (see next question).

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. For a complete list of vaccine components (i.e., excipients and culture media) used in the production of the vaccine, check the package insert (at www.immunize.org/fda) or go to www.cdc.gov/vaccines/pubs/pinkbook/downloads/appendices/B/excipient-table-2.pdf.

For more details about giving influenza vaccine to people with a history of egg allergy, see www.cdc.gov/mmwr/volumes/65/rr/pdfs/rr6505.pdf, pages 29–30. You also may find the IAC handout "Influenza Vaccination of People with a History of Egg Allergy" helpful (see www.immunize.org/catg.d/p3094.pdf).

Does the ACIP prefer that healthcare personnel administer high-dose or adjuvanted influenza vaccine to people age 65 years and older, or is standard-dose influenza vaccine acceptable?
ACIP has no preference. CDC stresses that vaccination is the first and most important step in protecting against influenza.

Some of our patients believe that they have had reactions to influenza vaccine in the past, and request the dose to be split into 2 doses administered on different days. Is this an acceptable practice?
This is definitely not an acceptable practice. Doses of influenza vaccine (or any other vaccine) should never be split into "half doses." If a "half dose" is given, it should not be accepted as a valid dose and should be repeated as soon as possible with an age-appropriate full dose.

The pneumococcal conjugate vaccine (PCV13, Prevnar, Pfizer) package insert says that in adults, antibody responses to PCV13 were diminished when given with inactivated influenza vaccine. Does this mean we should not give PCV13 and influenza vaccine at the same visit?
The available data have been interpreted that any changes in antibody response to either of the vaccines' components were clinically insignificant. If PCV13 and influenza vaccine are both indicated and recommended, they should be administered at the same visit. See the PCV13 ACIP recommendations at www.cdc.gov/mmwr/pdf/wk/mm6337.pdf, page 824.

We inadvertently administered a 0.5 mL dose of Fluvirin (IIV3, Seqirus) to a 2-year-old before realizing that the vaccine is only licensed for use in people age 4 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, this is a vaccine administration error as this formulation is not recommended for children younger than age 4 years. Clinicians should carefully select an influenza vaccine that is licensed for the age group of the person being vaccinated. At the time of this writing, Fluzone 0.25 mL (Sanofi Pasteur) is the only inactivated influenza vaccine approved for use in children age 6 months through 35 months of age.

If the child should need a second dose of influenza vaccine, an age-appropriate vaccine should be selected. IAC's educational piece "Influenza Vaccine Products for the 2016–2017 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.

How should influenza vaccines (IIV and LAIV) be stored?
Both IIV and LAIV should be refrigerated at temperatures between 2°C (36°F) and 8°C (46°F). ✦

To submit an "Ask the Experts" question…

You can email your questions about immunization to us at admin@immunize.org. IAC will respond to your inquiry. Because we receive hundreds of emails each month, we cannot guarantee that we will use your question in "Ask the Experts." IAC works with CDC to compile new Q&As for our publications based on commonly asked questions. Most of the questions are thus a composite of several inquiries.

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.

Ask the Experts

About IAC's Question of the Week

Each week, *IAC Express* highlights a new, topical, or important-to-reiterate Q&A. This feature is a cooperative venture between IAC and CDC. William L. Atkinson, MD, MPH, IAC's associate director for immunization education, chooses a new Q&A to feature every week from a set of Q&As prepared by experts at CDC's National Center for Immunization and Respiratory Diseases.

To find more than **1,000** **Ask the Experts** Q&As answered by CDC experts, visit

www.immunize.org/askexperts

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Vaccine Highlights

Recommendations, schedules, and more

Editor's note: The information in Vaccine Highlights is current as of October 7, 2016.

Next ACIP meetings

The Advisory Committee on Immunization Practices (ACIP) is comprised of 15 national experts who advise CDC on the appropriate use of vaccines.

ACIP meets three times a year in Atlanta; meetings are open to the public and viewable online via live webcast. The next meetings will be held on Oct. 19–20 and Feb. 22–23, 2017. For more information, visit www.cdc.gov/vaccines/acip.

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

- Download from IAC's website: www.immunize.org/acip
- Download from CDC's website: www.cdc. gov/vaccines/hcp/acip-recs

In addition, extensive information on ACIP meetings is available at www.cdc.gov/vaccines/acip/meetings/index.html.

New ACIP recommendations

On August 26, CDC published "Prevention and Control of Seasonal Influenza with Vaccines Recommendations of the ACIP – U.S., 2016–17 Influenza Season" in *MMWR Recommendations and Reports*, available at www.cdc.gov/mmwr/volumes/65/rr/pdfs/rr6505.pdf. Routine annual influenza vaccination is recommended for all persons age 6 months and older who do not have contraindications. In light of concerns regarding low effectiveness against influenza A(H1N1), ACIP recommends that during the 2016–17 vaccination season, live attenuated influenza vaccine (LAIV4, FluMist, AstraZeneca) not be used. Q&As are available on these recommendations in "Ask the Experts" beginning on page 1 of this issue of *Needle Tips*.

Cholera vaccine news

On June 10, FDA approved Vaxchora (PaxVax) for the prevention of cholera in adults age 18 through 64 years traveling to cholera-affected areas. It is the only FDA-approved vaccine to prevent cholera. The package insert and other information is available at www.fda.gov/BiologicsBloodVaccines/Vaccines/ApprovedProducts/ucm505866.htm. An ACIP statement for this new vaccine is being developed.

VIS news

On August 9, CDC released the final version of the serogroup B meningococcal vaccine (MenB) Vaccine Information Statement (VIS), and on July 20, the final versions of the hepatitis A, hepatitis B, and polio VISs were also released. These four VISs were updated from "interim" to "final" editions. CDC encourages providers to begin using these VISs immediately; however, stocks of the previous editions may be used until gone. The four new VISs, along with many translations, are available here:

- MenB VIS www.immunize.org/vis/vis_meningococcal_b.asp
- HepA VIS www.immunize.org/vis/vis_hepatitis_a.asp
- HepB VIS www.immunize.org/vis/vis_hepatitis_b.asp
- Polio VIS www.immunize.org/vis/vis_polio_ipv.asp

In July, CDC confirmed that influenza VISs for the 2016–17 season will not need to be updated from those used during 2015–16. You should use the same influenza VISs that you used in the previous year. Influenza vaccine VISs are available at www.immunize.org/vis/vis_flu_inactive.asp.

Even though ACIP does not recommend using LAIV vaccine for the 2016–17 season, you will find LAIV VISs and all other VISs, including more than 35 languages, at www.immunize.org/vis.

Storage and handling news

In June, CDC released its updated and redesigned its "Vaccine Storage and Handling Toolkit" guide in PDF format, available at www.cdc.gov/vaccines/hcp/admin/storage/toolkit/storage-handling-toolkit.pdf. The guide includes a change in CDC's recommendations on the Fahrenheit temperature range for storing refrigerated vaccines. The new recommended range is 36°–46°F (previously 35°–46°F). The Celsius temperature range (2°–8°C) remains unchanged. Links to the new guide and additional CDC storage and handling information are available at www.cdc.gov/vaccines/hcp/admin/storage/toolkit/index.html.

IAC is in the process of completing updates to all of its vaccine storage and handling online print materials to reflect this adjusted temperature guidance. Visit www.immunize.org/handouts/vaccine-storage-handling.asp to access these materials.

Adolescent vaccine news

On August 26, CDC published "National, Regional, State, and Selected Local Area Vaccination Coverage Among Adolescents Aged 13–17 Years – U.S., 2015" in *MMWR*. CDC analyzed data collected regarding 21,875 adolescents through the 2015 National Immunization Survey-Teen. Despite limited progress, HPV vaccination coverage remained lower than MenACWY and Tdap coverage, indicating continued missed opportunities for HPV-associated cancer prevention. To read the report go to www.cdc.gov/mmwr/volumes/65/wr/pdfs/mm6533a4.pdf.

On July 28, Dr. William L. Atkinson, MD, MPH, IAC's associate director for immunization education, presented a webinar titled "Adolescent Immunization: Where We Are Now and How We Can Do Better." Dr. Atkinson reviewed the recommendations for each adolescent vaccine, provided strategies to improve coverage rates in this population, and listed available resources to assist immunization providers in their efforts to improve coverage rates. It is now available on the home page of IAC's main website at www.immunize.org. To view it, scroll down to the middle of the page to Dr. Atkinson's photo and click on the link. In addition, the slide presentation is and speakers notes are available on IAC's PowerPoint Slide Set web page at www.immunize.org/resources/res_powerpoint.asp. At this link, you can request the full PowerPoint slide set and speakers notes to create your own adolescent immunization presentation.

AAP vaccine news

In September, AAP published "Recommendations for Serogroup B Meningococcal Vaccine for Persons 10 Years and Older." On the basis of epidemiologic and antibody persistence data, AAP states that either meningococcal serogroup B vaccine may be administered to healthy adolescents and young adults 16 through 23 years of age (preferred ages are 16 through 18 years) to provide short-term protection against most strains of serogroup B meningococcal disease (category B recommenda-

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Vaccine Highlights… *continued from page 5*

tion). (http://pediatrics.aappublications.org/content/138/3/e20161890)

In September, AAP released a policy statement titled "Medical Versus Nonmedical Immunization Exemptions for Child Care and School Attendance." The statement urges lawmakers to eliminate all non-medical exemptions for child care and school attendance. The AAP supports medically indicated exemptions to specific immunizations as determined for each individual child. The policy statement is available at http://pediatrics.aappublications.org/content/early/2016/08/25/peds.2016-2145.

On August 29, AAP released a clinical report titled "Countering Vaccine Hesitancy," which provides information about how to address parental concerns about vaccination. The Committee on Infectious Diseases and the Committee on Practice and Ambulatory Medicine issued the report which is available at http://dx.doi.org/10.1542/peds.2016-2146, and is also published in the September issue of *Pediatrics*. In the report, AAP officially acknowledges for the first time that dismissal from the practice is an option in certain circumstances for patient families who categorically refuse vaccines. Dismissal was added as "a very last resort" in the toolbox for pediatricians dealing with vaccine-resistant families. To read the *AAP News* article on this report, go to www.aappublications.org/news/2016/08/29/VaccineHesitancy082916.

Hepatitis B news

In July 2016, IAC updated *Hepatitis B: What Hospitals Need to Do to Protect Newborns*, an 84-page comprehensive guidebook to help birthing institutions establish, implement, and optimize their perinatal hepatitis B birth dose prevention strategies. Changes to the book reflect the updated CDC guidance regarding the timing of postvaccination testing of high-risk infants whose mothers are HBsAg positive. (CDC now recommends it at age 9–12 months.)

You can download the book or individual chapters free of charge, or you can order soft-cover, spiral-bound, color copies for $20 plus shipping at www.immunize.org/protect-newborns/guide. Discounts available for ordering quantities. ✦

Current VIS dates

Check the dates on your supply of Vaccine Information Statements (VISs). If they are out of date, obtain the most up-to-date versions as well as VIS translations in more than 30 languages at www.immunize.org/vis.

Adenovirus	6/11/14	MMR	4/20/12
Anthrax	3/10/10	MMRV	5/21/10
Chickenpox	3/13/08	Multi-vaccine	11/5/15
DTaP	5/17/07	PCV13	11/5/15
Hib	4/2/15	PPSV	4/24/15
Hepatitis A	7/20/16	Polio	7/20/16
Hepatitis B	7/20/16	Rabies	10/6/09
HPV-Cervarix	5/3/11	Rotavirus	4/15/15
HPV-Gardasil	5/17/13	Shingles	10/6/09
HPV-Gardasil 9	3/31/16	Td	2/24/15
Influenza	8/7/15	Tdap	2/24/15
Japanese enceph…	1/24/14	Typhoid	5/29/12
MCV4/MPSV4	3/31/16	Yellow fever	3/30/11
MenB	8/9/16		

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

Apply for IAC's Influenza Vaccination Honor Roll

Join more than 500 healthcare settings already honored!

This honor roll recognizes healthcare settings that have implemented mandatory vaccination policies for health care personnel (HCP).

To find the healthcare settings listed by state, visit www.immunize.org/honor-roll/influenza-mandates/honorees.asp

To read position statements supporting mandatory HCP vaccination from leading healthcare organizations and professional medical societies or to apply, visit www.immunize.org/honor-roll/influenza-mandates.

Apply for IAC's Hepatitis B Birth Dose Honor Roll

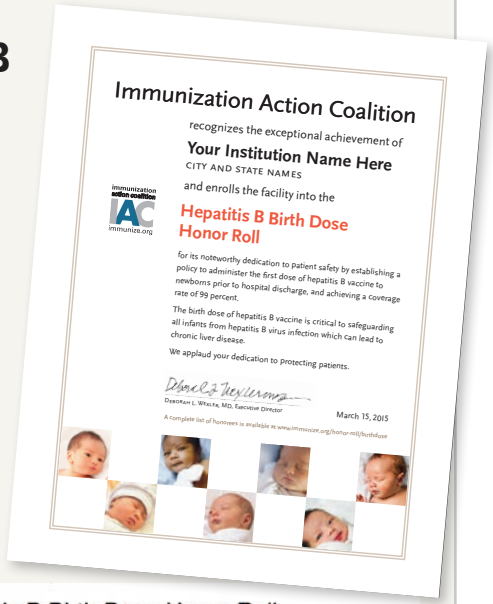
Join more than 200 hospitals already honored!

This honor roll recognizes hospitals and birthing centers that have attained high coverage rates for administering hepatitis B vaccine at birth.

To find hospitals listed by state, visit www.immunize.org/honor-roll/birthdose/honorees.asp

To find out more about the birth dose honor roll, visit www.immunize.org/honor-roll/birthdose

To apply, visit www.immunize.org/honor-roll/birthdose/apply.aspx


Immunization Action Coalition

recognizes the exceptional achievement of

Your Institution Name Here

CITY AND STATE NAMES

and enrolls the facility into the

Hepatitis B Birth Dose Honor Roll

for its noteworthy dedication to patient safety by establishing a policy to administer the first dose of hepatitis B vaccine to newborns prior to hospital discharge, and achieving a coverage rate of 99 percent.

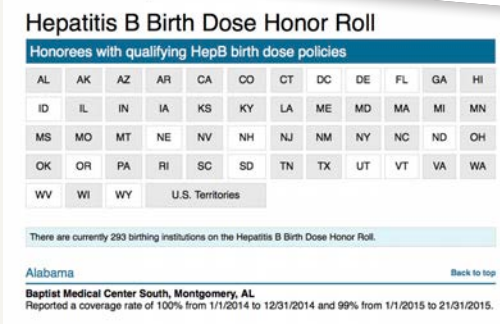
The birth dose of hepatitis B vaccine is critical to safeguarding all infants from hepatitis B virus infection which can lead to chronic liver disease.

We applaud your dedication to protecting patients.

Deborah L. Wexler, MD, Executive Director

March 15, 2015

A complete list of honorees is available at www.immunize.org/honor-roll/birthdose


Hepatitis B Birth Dose Honor Roll

Honorees with qualifying HepB birth dose policies

AL AK AZ AR CA CO CT DC DE FL GA HI
ID IL IN IA KS KY LA ME MD MA MI MN
MS MO MT NE NV NH NJ NM NY NC ND OH
OK OR PA RI SC SD TN TX UT VT VA WA
WV WI WY U.S. Territories

There are currently 293 birthing institutions on the Hepatitis B Birth Dose Honor Roll.

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Baptist Medical Center South, Montgomery, AL
Reported a coverage rate of 100% from 1/1/2014 to 12/31/2014 and 99% from 1/1/2015 to 21/31/2015.

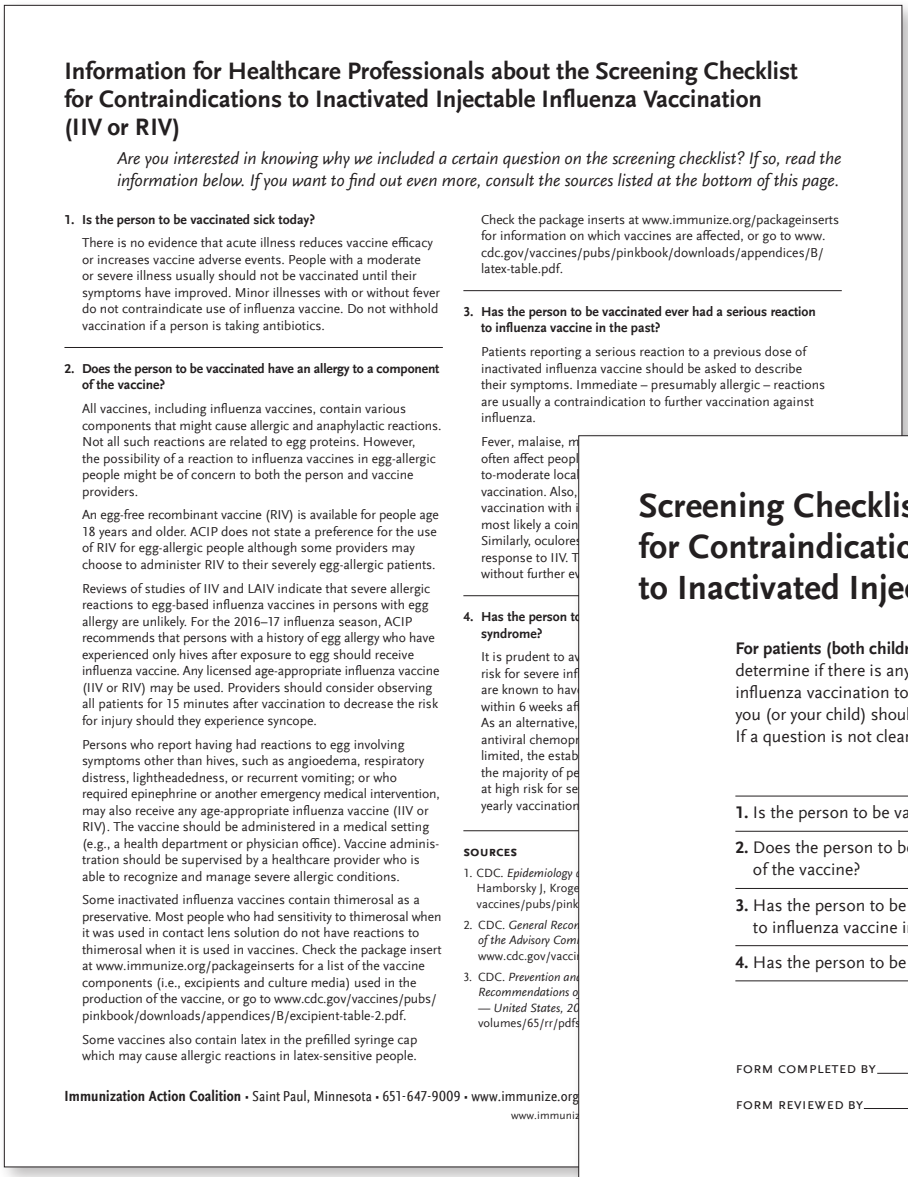
Influenza Vaccine Products for the 2016–2017 Influenza Season

Manufacturer	Trade Name (vaccine abbreviation)[1]	How Supplied	Mercury Content (µg Hg/0.5mL)	Age Group	Vaccine Product Billing Code[2]	
					CPT	Medicare[3]
AstraZeneca	FluMist[4] (LAIV4)	0.2 mL (single-use nasal spray)	0	2 through 49 years	90672	90672
GlaxoSmithKline	Fluarix (IIV4)	0.5 mL (single-dose syringe)	0	3 years & older	90686	90686
ID Biomedical Corp. of Quebec, a subsidiary of GlaxoSmithKline	FluLaval (IIV4)	0.5 mL (single-dose syringe)	0	3 years & older	90686	90686
		5.0 mL (multi-dose vial)	<25	3 years & older	90688	90688
Protein Sciences Corp.	Flublok (RIV3)	0.5 mL (single-dose vial)	0	18 years & older	90673	90673
Sanofi Pasteur, Inc.	Fluzone (IIV4)	0.25 mL (single-dose syringe)	0	6 through 35 months	90685	90685
		0.5 mL (single-dose syringe)	0	3 years & older	90686	90686
		0.5 mL (single-dose vial)	0	3 years & older	90686	90686
		5.0 mL (multi-dose vial)	25	6 through 35 months	90687	90687
		5.0 mL (multi-dose vial)	25	3 years & older	90688	90688
	Fluzone High-Dose (IIV3-HD)	0.5 mL (single-dose syringe)	0	65 years & older	90662	90662
	Fluzone Intradermal (IIV4-ID)	0.1 mL (single-dose microinjection system)	0	18 through 64 years	90630	90630
Seqirus (formerly Novartis influenza vaccines and bioCSL)	Afluria (IIV3)	0.5 mL (single-dose syringe)	0	9 years & older[5,6]	90656	90656
		5.0 mL (multi-dose vial)	24.5		90658	Q2035
	Afluria (IIV4)	0.5 mL (single-dose syringe)	0	18 years & older[6]	90686	90686
		5.0 mL (multi-dose vial)	24.5		90688	90688
	Fluad (aIIV3)	0.5 mL (single-dose syringe)	0	65 years & older	90653	90653
	Fluvirin (IIV3)	0.5 mL (single-dose syringe)	≤1	4 years & older	90656	90656
		5.0 mL (multi-dose vial)	25		90658	Q2037
	Flucelvax (ccIIV4)	0.5 mL (single-dose syringe)	0	4 years & older	90674	90674

Footnotes

1. 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 = egg-based quadrivalent inactivated influenza vaccine (injectable); RIV3 = trivalent recombinant hemagglutinin influenza vaccine (injectable); aIIV3 = adjuvanted trivalent inactivated influenza vaccine.
2. Effective for claims with dates of service on or after 1/1/2011, CPT (Current Procedural Terminology) code 90658 is no longer payable for Medicare; rather, HCPCS (Healthcare Common Procedure Coding System) Q codes, as indicated above, should be submitted for payment purposes.
3. An administration code should always be reported in addition to the vaccine product code. Note: Third party payers may have specific policies and guidelines that might require providing additional information on their claim forms.
4. ACIP recommends not using FluMist during the 2016–17 influenza vaccination season.
5. In 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 2016–2017 influenza season.
6. Afluria is approved by the Food and Drug Administration for intramuscular administration with the PharmaJet Stratis Needle-Free Injection System for persons age 18 through 64 years.

Screening Checklist for Contraindications to Inactivated Injectable Influenza Vaccination



Information for Healthcare Professionals about the Screening Checklist for Contraindications to Inactivated Injectable Influenza Vaccination (IIV or RIV)

Are you interested in knowing why we included a certain question on the screening checklist? If so, read the information below. If you want to find out even more, consult the sources listed at the bottom of this page.

1. Is the person to be vaccinated sick today?

There is no evidence that acute illness reduces vaccine efficacy or increases vaccine adverse events. People with a moderate or severe illness usually should not be vaccinated until their symptoms have improved. Minor illnesses with or without fever do not contraindicate use of influenza vaccine. Do not withhold vaccination if a person is taking antibiotics.

2. Does the person to be vaccinated have an allergy to a component of the vaccine?

All vaccines, including influenza vaccines, contain various components that might cause allergic and anaphylactic reactions. Not all such reactions are related to egg proteins. However, the possibility of a reaction to influenza vaccines in egg-allergic people might be of concern to both the person and vaccine providers.

An egg-free recombinant vaccine (RIV) is available for people age 18 years and older. ACIP does not state a preference for the use of RIV for egg-allergic people although some providers may choose to administer RIV to their severely egg-allergic patients.

Reviews of studies of IIV and LAIV indicate that severe allergic reactions to egg-based influenza vaccines in persons with egg allergy are unlikely. For the 2016–17 influenza season, ACIP recommends that persons with a history of egg allergy who have experienced only hives after exposure to egg should receive influenza vaccine. Any licensed age-appropriate influenza vaccine (IIV or RIV) may be used. Providers should consider observing all patients for 15 minutes after vaccination to decrease the risk for injury should they experience syncope.

Persons who report having had reactions to egg involving symptoms other than hives, such as angioedema, respiratory distress, lightheadedness, or recurrent vomiting; or who required epinephrine or another emergency medical intervention, may also receive any age-appropriate influenza vaccine (IIV or RIV). The vaccine should be administered in a medical setting (e.g., a health department or physician office). Vaccine administration should be supervised by a healthcare provider who is able to recognize and manage severe allergic conditions.

Some inactivated influenza vaccines contain thimerosal as a preservative. Most people who had sensitivity to thimerosal when it was used in contact lens solution do not have reactions to thimerosal when it is used in vaccines. Check the package insert at www.immunize.org/packageinserts for a list of the vaccine components (i.e., excipients and culture media) used in the production of the vaccine, or go to www.cdc.gov/vaccines/pubs/pinkbook/downloads/appendices/B/excipient-table-2.pdf.

Some vaccines also contain latex in the prefilled syringe cap which may cause allergic reactions in latex-sensitive people. Check the package inserts at www.immunize.org/packageinserts for information on which vaccines are affected, or go to www.cdc.gov/vaccines/pubs/pinkbook/downloads/appendices/B/latex-table.pdf.

3. Has the person to be vaccinated ever had a serious reaction to influenza vaccine in the past?

Patients reporting a serious reaction to a previous dose of inactivated influenza vaccine should be asked to describe their symptoms. Immediate – presumably allergic – reactions are usually a contraindication to further vaccination against influenza.

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As an alternative,
antiviral chemopr
limited, the estab
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at high risk for se
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SOURCES

1. CDC. *Epidemiology*
Hamborsky J, Kroge
vaccines/pubs/pink
2. CDC. *General Recor*
of the Advisory Com
www.cdc.gov/vacci
3. CDC. *Prevention an*
Recommendations o
— United States, 20
volumes/65/rr/pdfs

Immunization Action Coalition • Saint Paul, Minnesota • 651-647-9009 • www.immunize.org
www.immuniz

- This checklist covers contraindications and precautions for injectable influenza vaccine.
- Ask your patients to complete the checklist on page 1. Page 2 is not for patients; it is reference material for you.

Screening Checklist for Contraindications to Inactivated Injectable Influenza Vaccination

PATIENT NAME _____

DATE OF BIRTH ___ (month) / ___ (day) / ___ (year)

For patients (both children and adults) 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.

	yes	no	don't know
1. Is the person to be vaccinated sick today?	☐	☐	☐
2. Does the person to be vaccinated have an allergy 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 _____ DATE _____

FORM REVIEWED BY _____ DATE _____

immunization action coalition
IAC
immunize.org

Technical content reviewed by the Centers for Disease Control and Prevention

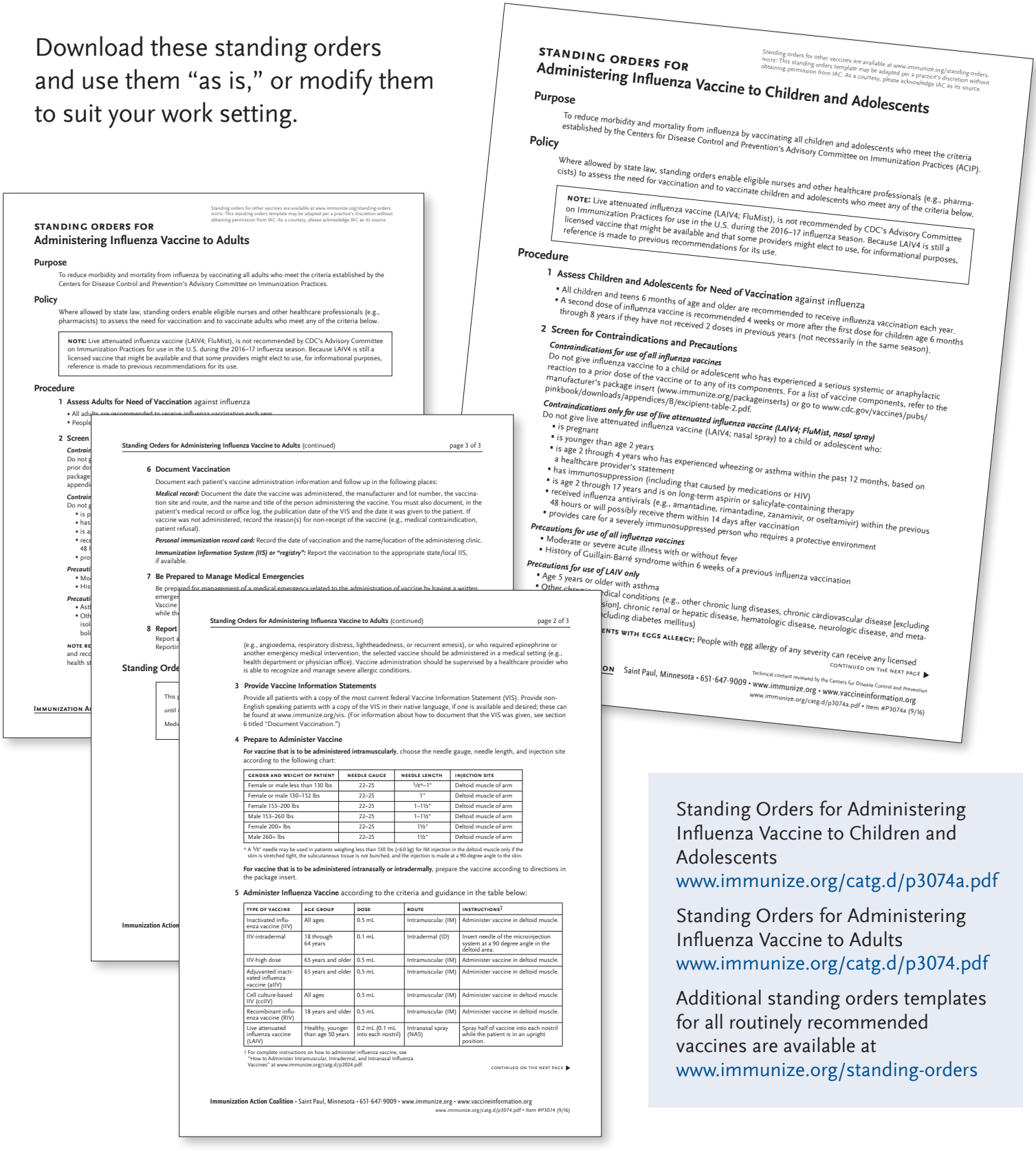
Saint Paul, Minnesota • 651-647-9009 • www.immunize.org • www.vaccineinformation.org

www.immunize.org/catg.d/p4066.pdf • Item #P4066 (9/16)

For a ready-to-copy 8½ x 11" version of this 2-page form, visit www.immunize.org/catg.d/p4066.pdf.

Use These Standing Orders Templates for Administering Influenza Vaccination in Your Healthcare Setting

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



STANDING ORDERS FOR
Administering Influenza Vaccine to Children and Adolescents

Standing orders for other vaccines are available at www.immunize.org/standing-orders. NOTE: This standing orders template may be adapted per a practice's discretion without obtaining permission from IAC. As a courtesy, please acknowledge IAC as its source.

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 (ACIP).

Policy

Where allowed by state law, standing orders enable eligible nurses and other healthcare professionals (e.g., pharmacists) to assess the need for vaccination and to vaccinate children and adolescents who meet any of the criteria below.

NOTE: Live attenuated influenza vaccine (LAIV4; FluMist), is not recommended by CDC's Advisory Committee on Immunization Practices for use in the U.S. during the 2016–17 influenza season. Because LAIV4 is still a licensed vaccine that might be available and that some providers might elect to use, for informational purposes, reference is made to previous recommendations for its use.

Procedure

1 Assess Children and Adolescents for Need of Vaccination against influenza

- All children and teens 6 months of age and older are recommended to receive influenza vaccination each year.
- A second dose of influenza vaccine is recommended 4 weeks or more after the first dose for children age 6 months through 8 years if they have not received 2 doses in previous years (not necessarily in the same season).

2 Screen for Contraindications and Precautions

Contraindications for use of all influenza vaccines

Do not give influenza vaccine to a child or adolescent who has experienced 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, refer to the manufacturer's package insert (www.immunize.org/packageinserts) or go to www.cdc.gov/vaccines/pubs/pinkbook/downloads/appendices/B/excipient-table-2.pdf.

Contraindications only for use of live attenuated influenza vaccine (LAIV4; FluMist, nasal spray)

Do not give live attenuated influenza vaccine (LAIV4; nasal spray) to a child or adolescent who:

- is pregnant
- is younger than age 2 years
- is age 2 through 4 years who has experienced wheezing or asthma within the past 12 months, based on a healthcare provider's statement
- has immunosuppression (including that caused by medications or HIV)
- is age 2 through 17 years and is on long-term aspirin or salicylate-containing therapy
- received influenza antivirals (e.g., amantadine, rimantadine, zanamivir, or oseltamivir) within the previous 48 hours or will possibly receive them within 14 days after vaccination
- provides care for a severely immunosuppressed person who requires a protective environment

Precautions for use of all influenza vaccines

- Moderate or severe acute illness with or without fever
- History of Guillain-Barré syndrome within 6 weeks of a previous influenza vaccination

Precautions for use of LAIV only

- Age 5 years or older with asthma
- Other chron… medical conditions (e.g., other chronic lung diseases, chronic cardiovascular disease [excluding …sion], chronic renal or hepatic disease, hematologic disease, neurologic disease, and meta… including diabetes mellitus)

…ENTS WITH EGGS ALLERGY: People with egg allergy of any severity can receive any licensed

CONTINUED ON THE NEXT PAGE ▶

STANDING ORDERS FOR
Administering Influenza Vaccine to Adults

Standing orders for other vaccines are available at www.immunize.org/standing-orders. NOTE: This standing orders template may be adapted per a practice's discretion without obtaining permission from IAC. As a courtesy, please acknowledge IAC as its source.

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

Where allowed by state law, standing orders enable eligible nurses and other healthcare professionals (e.g., pharmacists) to assess the need for vaccination and to vaccinate adults who meet any of the criteria below.

NOTE: Live attenuated influenza vaccine (LAIV4; FluMist), is not recommended by CDC's Advisory Committee on Immunization Practices for use in the U.S. during the 2016–17 influenza season. Because LAIV4 is still a licensed vaccine that might be available and that some providers might elect to use, for informational purposes, reference is made to previous recommendations for its use.

Procedure

1 Assess Adults for Need of Vaccination against influenza

- All adults are recommended to receive influenza vaccination each year.
- People…

2 Screen…

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6 Document Vaccination

Document each patient's vaccine administration information and follow up in the following places:

Medical record: Document 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. You must also 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. If vaccine was not administered, record the reason(s) for non-receipt of the vaccine (e.g., medical contraindication, patient refusal).

Personal immunization record card: Record the date of vaccination and the name/location of the administering clinic.

Immunization Information System (IIS) or "registry": Report the vaccination to the appropriate state/local IIS, if available.

7 Be Prepared to Manage Medical Emergencies

Be prepared for management of a medical emergency related to the administration of vaccine by having a written emerger… Vaccine… while th…

8 Report…

Report a… Reportir…

Standing Orde…

This g… until … Medi…

(e.g., angioedema, respiratory distress, lightheadedness, or recurrent emesis), or who required epinephrine or another emergency medical intervention, the selected vaccine should be administered in a medical setting (e.g., health department or physician office). Vaccine administration should be supervised by a healthcare provider who is able to recognize and manage severe allergic conditions.

3 Provide Vaccine Information Statements

Provide all patients with a copy of the most current federal Vaccine Information Statement (VIS). Provide non-English speaking patients with a copy of the VIS in their native language, if one is available and desired; these can be found at www.immunize.org/vis. (For information about how to document that the VIS was given, see section 6 titled "Document Vaccination.")

4 Prepare to Administer Vaccine

For vaccine that is to be administered intramuscularly, choose the needle gauge, needle length, and injection site according to the following chart:

GENDER AND WEIGHT OF PATIENT	NEEDLE GAUGE	NEEDLE LENGTH	INJECTION SITE
Female or male less than 130 lbs	22–25	⅝"–1"	Deltoid muscle of arm
Female or male 130–152 lbs	22–25	1"	Deltoid muscle of arm
Female 153–200 lbs	22–25	1–1½"	Deltoid muscle of arm
Male 153–260 lbs	22–25	1–1½"	Deltoid muscle of arm
Female 200+ lbs	22–25	1½"	Deltoid muscle of arm
Male 260+ lbs	22–25	1½"	Deltoid muscle of arm

* A ⅝" needle may be used in patients weighing less than 130 lbs (<60 kg) for IM injection in the deltoid muscle only if the skin is stretched tight, the subcutaneous tissue is not bunched, and the injection is made at a 90-degree angle to the skin.

For vaccine that is to be administered intranasally or intradermally, prepare the vaccine according to directions in the package insert.

5 **Administer Influenza Vaccine** according to the criteria and guidance in the table below:

TYPE OF VACCINE	AGE GROUP	DOSE	ROUTE	INSTRUCTIONS†
Inactivated influenza vaccine (IIV)	All ages	0.5 mL	Intramuscular (IM)	Administer vaccine in deltoid muscle.
IIV-intradermal	18 through 64 years	0.1 mL	Intradermal (ID)	Insert needle of the microinjection system at a 90 degree angle in the deltoid area.
IIV-high dose	65 years and older	0.5 mL	Intramuscular (IM)	Administer vaccine in deltoid muscle.
Adjuvanted inactivated influenza vaccine (aIIV)	65 years and older	0.5 mL	Intramuscular (IM)	Administer vaccine in deltoid muscle.
Cell culture-based IIV (ccIIV)	All ages	0.5 mL	Intramuscular (IM)	Administer vaccine in deltoid muscle.
Recombinant influenza vaccine (RIV)	18 years and older	0.5 mL	Intramuscular (IM)	Administer vaccine in deltoid muscle.
Live attenuated influenza vaccine (LAIV)	Healthy, younger than age 50 years	0.2 mL (0.1 mL into each nostril)	Intranasal spray (NAS)	Spray half of vaccine into each nostril while the patient is in an upright position.

† For complete instructions on how to administer influenza vaccine, see "How to Administer Intramuscular, Intradermal, and Intranasal Influenza Vaccines" at www.immunize.org/catg.d/p2024.pdf.

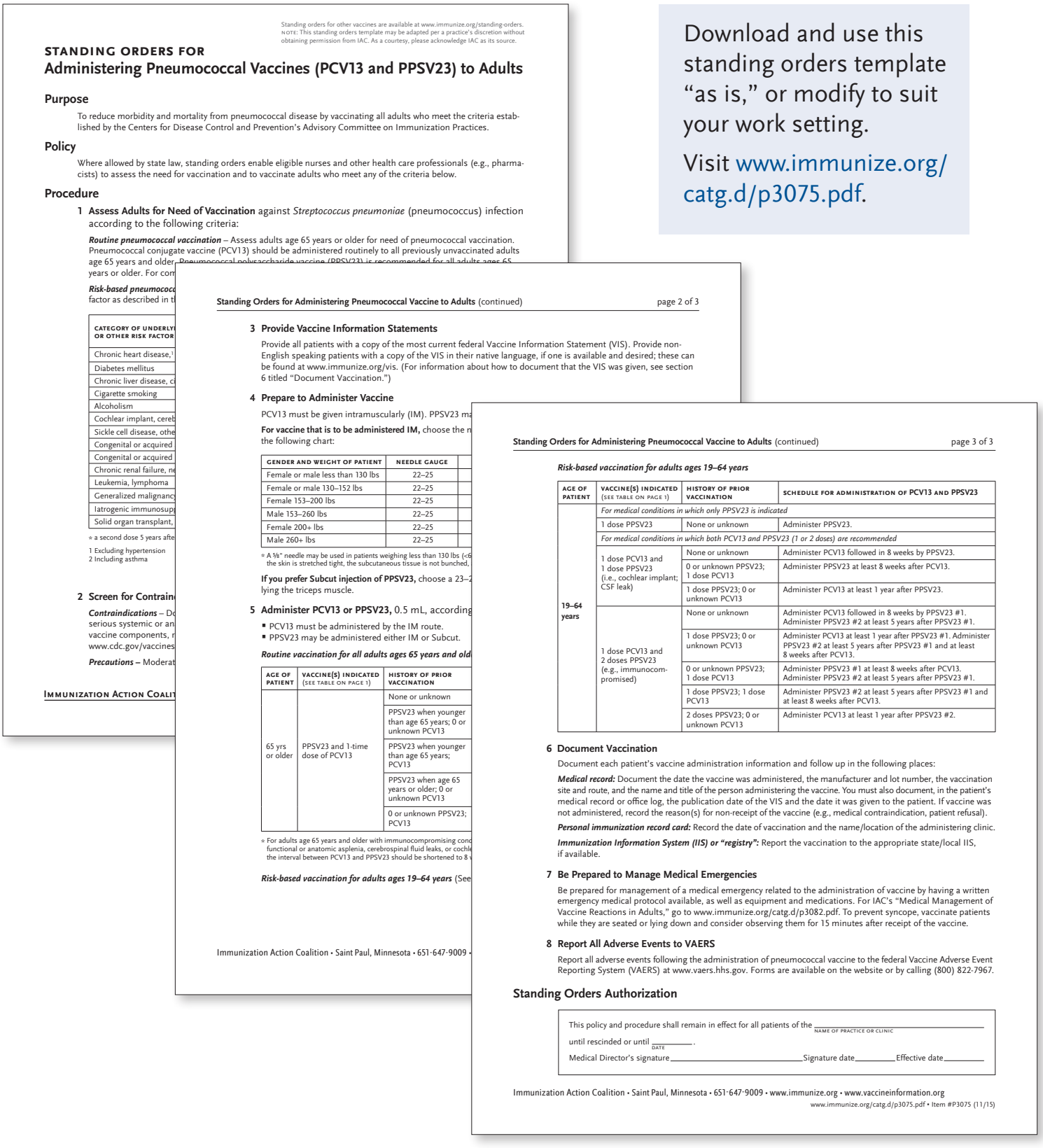
CONTINUED ON THE NEXT PAGE ▶

Standing Orders for Administering Influenza Vaccine to Children and Adolescents
www.immunize.org/catg.d/p3074a.pdf

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

Additional standing orders templates for all routinely recommended vaccines are available at www.immunize.org/standing-orders

Standing Orders Template for Administering Pneumococcal Vaccines (PCV13 and PPSV23) to Adults



Standing orders for other vaccines are available at www.immunize.org/standing-orders. NOTE: This standing orders template may be adapted per a practice's discretion without obtaining permission from IAC. As a courtesy, please acknowledge IAC as its source.

STANDING ORDERS FOR
Administering Pneumococcal Vaccines (PCV13 and PPSV23) to Adults

Purpose

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

Policy

Where allowed by state law, standing orders enable eligible nurses and other health care professionals (e.g., pharmacists) to assess the need for vaccination and to vaccinate adults who meet any of the criteria below.

Procedure

1 Assess Adults for Need of Vaccination against *Streptococcus pneumoniae* (pneumococcus) infection according to the following criteria:

Routine pneumococcal vaccination – Assess adults age 65 years or older for need of pneumococcal vaccination. Pneumococcal conjugate vaccine (PCV13) should be administered routinely to all previously unvaccinated adults age 65 years and older. Pneumococcal polysaccharide vaccine (PPSV23) is recommended for all adults ages 65 years or older. For com

Risk-based pneumococc factor as described in t

CATEGORY OF UNDERLY OR OTHER RISK FACTOR
Chronic heart disease,[1]
Diabetes mellitus
Chronic liver disease, c
Cigarette smoking
Alcoholism
Cochlear implant, cereb
Sickle cell disease, othe
Congenital or acquired
Congenital or acquired
Chronic renal failure, ne
Leukemia, lymphoma
Generalized malignanc
Iatrogenic immunosup
Solid organ transplant,

* a second dose 5 years afte

1 Excluding hypertension
2 Including asthma

2 Screen for Contrain

Contraindications – Do
serious systemic or an
vaccine components, r
www.cdc.gov/vaccines

Precautions – Moderat

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3 Provide Vaccine Information Statements

Provide all patients with a copy of the most current federal Vaccine Information Statement (VIS). Provide non-English speaking patients with a copy of the VIS in their native language, if one is available and desired; these can be found at www.immunize.org/vis. (For information about how to document that the VIS was given, see section 6 titled "Document Vaccination.")

4 Prepare to Administer Vaccine

PCV13 must be given intramuscularly (IM). PPSV23 ma

For vaccine that is to be administered IM, choose the n
the following chart:

GENDER AND WEIGHT OF PATIENT	NEEDLE GAUGE
Female or male less than 130 lbs	22–25
Female or male 130–152 lbs	22–25
Female 153–200 lbs	22–25
Male 153–260 lbs	22–25
Female 200+ lbs	22–25
Male 260+ lbs	22–25

* A ⅝" needle may be used in patients weighing less than 130 lbs (<6
the skin is stretched tight, the subcutaneous tissue is not bunched,

If you prefer Subcut injection of PPSV23, choose a 23–2
lying the triceps muscle.

5 Administer PCV13 or PPSV23, 0.5 mL, according

- PCV13 must be administered by the IM route.
- PPSV23 may be administered either IM or Subcut.

Routine vaccination for all adults ages 65 years and old

AGE OF PATIENT	VACCINE(S) INDICATED (SEE TABLE ON PAGE 1)	HISTORY OF PRIOR VACCINATION
65 yrs or older	PPSV23 and 1-time dose of PCV13	None or unknown
		PPSV23 when younger than age 65 years; 0 or unknown PCV13
		PPSV23 when younger than age 65 years; PCV13
		PPSV23 when age 65 years or older; 0 or unknown PCV13
		0 or unknown PPSV23; PCV13

* For adults age 65 years and older with immunocompromising cond
functional or anatomic asplenia, cerebrospinal fluid leaks, or cochle
the interval between PCV13 and PPSV23 should be shortened to 8 v

Risk-based vaccination for adults ages 19–64 years (See

Risk-based vaccination for adults ages 19–64 years

AGE OF PATIENT	VACCINE(S) INDICATED (SEE TABLE ON PAGE 1)	HISTORY OF PRIOR VACCINATION	SCHEDULE FOR ADMINISTRATION OF PCV13 AND PPSV23
19–64 years	*For medical conditions in which only PPSV23 is indicated*		
	1 dose PPSV23	None or unknown	Administer PPSV23.
	For medical conditions in which both PCV13 and PPSV23 (1 or 2 doses) are recommended		
	1 dose PCV13 and 1 dose PPSV23 (i.e., cochlear implant; CSF leak)	None or unknown	Administer PCV13 followed in 8 weeks by PPSV23.
		0 or unknown PPSV23; 1 dose PCV13	Administer PPSV23 at least 8 weeks after PCV13.
		1 dose PPSV23; 0 or unknown PCV13	Administer PCV13 at least 1 year after PPSV23.
	1 dose PCV13 and 2 doses PPSV23 (e.g., immunocompromised)	None or unknown	Administer PCV13 followed in 8 weeks by PPSV23 #1. Administer PPSV23 #2 at least 5 years after PPSV23 #1.
		1 dose PPSV23; 0 or unknown PCV13	Administer PCV13 at least 1 year after PPSV23 #1. Administer PPSV23 #2 at least 5 years after PPSV23 #1 and at least 8 weeks after PCV13.
		0 or unknown PPSV23; 1 dose PCV13	Administer PPSV23 #1 at least 8 weeks after PCV13. Administer PPSV23 #2 at least 5 years after PPSV23 #1.
		1 dose PPSV23; 1 dose PCV13	Administer PPSV23 #2 at least 5 years after PPSV23 #1 and at least 8 weeks after PCV13.
		2 doses PPSV23; 0 or unknown PCV13	Administer PCV13 at least 1 year after PPSV23 #2.

6 Document Vaccination

Document each patient's vaccine administration information and follow up in the following places:

Medical record: Document 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. You must also 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. If vaccine was not administered, record the reason(s) for non-receipt of the vaccine (e.g., medical contraindication, patient refusal).

Personal immunization record card: Record the date of vaccination and the name/location of the administering clinic.

Immunization Information System (IIS) or "registry": Report the vaccination to the appropriate state/local IIS, if available.

7 Be Prepared to Manage Medical Emergencies

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. For IAC's "Medical Management of Vaccine Reactions in Adults," go to www.immunize.org/catg.d/p3082.pdf. To prevent syncope, vaccinate patients while they are seated or lying down and consider observing them for 15 minutes after receipt of the vaccine.

8 Report All Adverse Events to VAERS

Report all adverse events following the administration of pneumococcal vaccine to the federal Vaccine Adverse Event Reporting System (VAERS) at www.vaers.hhs.gov. Forms are available on the website or by calling (800) 822-7967.

Standing Orders Authorization

This policy and procedure shall remain in effect for all patients of the _____ (NAME OF PRACTICE OR CLINIC)
until rescinded or until _____ (DATE).
Medical Director's signature_____Signature date_____Effective date_____

Download and use this standing orders template "as is," or modify to suit your work setting.

Visit www.immunize.org/catg.d/p3075.pdf.

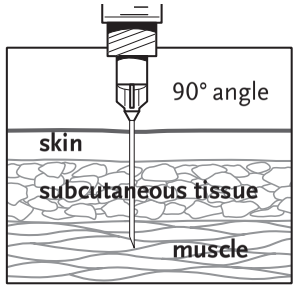
How to Administer Intramuscular, Intradermal, and Intranasal Influenza Vaccines

Intramuscular injection (IM)

Inactivated Influenza Vaccines (IIV), including recombinant hemagglutinin influenza vaccine (RIV3)

1. Use a needle long enough to reach deep into the muscle. Infants age 6 through 11 mos: 1"; 1 through 2 yrs: 1–1¼"; children and adults 3 yrs and older: 1–1½".
2. With your left hand*, bunch up the muscle.
3. With your right hand*, insert the needle at a 90° angle to the skin with a quick thrust.
4. Push down on the plunger and inject the entire contents of the syringe. There is no need to aspirate.
5. Remove the needle and simultaneously apply pressure to the injection site with a dry cotton ball or gauze. Hold in place for several seconds.
6. If there is any bleeding, cover the injection site with a bandage.
7. Put the used syringe in a sharps container.

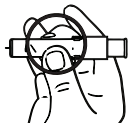
*Use the opposite hand if you are left-handed.



Intradermal administration (ID)

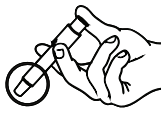
Inactivated Influenza Vaccine (IIV)

1. Gently shake the microinjection system before administering the vaccine.
2. Hold the system by placing the thumb and middle finger on the finger pads; the index finger should remain free.



3. Insert the needle perpendicular to the skin, in the region of the deltoid, in a short, quick movement.
4. Once the needle has been inserted, maintain light pressure on the surface of the skin and inject using the index finger to push on the plunger. Do not aspirate.

5. Remove the needle from the skin. With the needle directed away from you and others, push very firmly with the thumb on the plunger to activate the needle shield. You will hear a click when the shield extends to cover the needle.



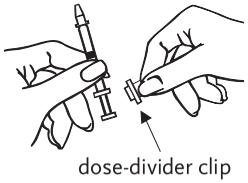
6. Dispose of the applicator in a sharps container.

Intranasal administration (NAS)

Live Attenuated Influenza Vaccine (LAIV)

1. FluMist (LAIV) is for intranasal administration only. Do not inject FluMist.
2. Remove rubber tip protector. Do not remove dose-divider clip at the other end of the sprayer.
3. With the patient in an upright position, place the tip just inside the nostril to ensure LAIV is delivered into the nose. The patient should breathe normally.

4. With a single motion, depress plunger as rapidly as possible until the dose-divider clip prevents you from going further.
5. Pinch and remove the dose-divider clip from the plunger.



6. Place the tip just inside the other nostril, and with a single motion, depress plunger as rapidly as possible to deliver the remaining vaccine.
7. Dispose of the applicator in a sharps container.

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Saint Paul, Minnesota • 651-647-9009 • www.immunize.org • www.vaccineinformation.org

Technical content reviewed by the Centers for Disease Control and Prevention
www.immunize.org/catg.d/p2024.pdf • Item #P2024 (9/15)

First Do No Harm: Mandatory Influenza Vaccination Policies for Healthcare Personnel Help Protect Patients

Policy statements from leading medical societies that support mandatory influenza vaccination of healthcare workers are available online. For a listing of them, visit www.immunize.org/catg.d/p2014.pdf.

First Do No Harm: Mandatory Influenza Vaccination Policies for Healthcare Personnel 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/20110613mandatoryfluvacc.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)
Influenza Immunization for All Health Care Personnel: Keep It Mandatory, a reaffirmation of AAP's policy on mandatory influenza immunization of health care personnel (Oct. 2015)
▶ http://pediatrics.aappublications.org/content/136/4/809
"Mandating influenza vaccine for all HCP nationwide is ethical, just, and necessary. For the prevention and control of influenza, we must continue to put the health and safety of the patient first."

American College of Physicians (ACP)
ACP calls for immunization for all health care providers (1/14/2013)
▶ www.acponline.org/newsroom/hcp_vaccinations.htm
"Proper immunization safely and effectively prevents a significant number of infections, hospitalizations, and deaths among patients as well as preventing [illegible] medical errors by absent workers due to illness."

[illegible]sociation (AHA)
[illegible]ety Policies Requiring Influenza Vaccination of [illegible]2/11)
[illegible]-issues/tools-resources/advisory/2011/110722-
[illegible]fare of patients and employees, AHA supports [illegible]olicies that require either influenza vaccination or [illegible]nce of patients across healthcare settings during [illegible]hieve the highest possible level of protection."

[illegible]ectors Association (AMDA)
[illegible] for Long Term Care Workers (3/11)
[illegible]rnance/resolutions/J11.cfm
[illegible]MDA – Dedicated to Long-Term Care Medicine – [illegible]al influenza vaccination for every long-term health [illegible]patient contact unless a medical contraindication [illegible]religious objection exists."

American Pharmacists Association (APhA)
Requiring Influenza Vaccination for All Pharmacy Personnel (4/11)
▶ www.pharmacist.com/sites/default/files/files/2011ActionsoftheAPhAHoD-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/policies-and-advocacy/public-health-policy-statements/policy-database/2014/07/11/14/36/annual-influenza-vaccination-requirements-for-health-workers
"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)
Mandatory Immunization of Health Care Personnel Against Influenza and Other Infectious Diseases (rev. 12/10/13)
▶ www.idsociety.org/HCW_Policy
"Preventing healthcare-associated transmission of influenza and other infectious diseases can protect patients, HCP, and local communities. For this reason, IDSA supports mandatory immunization of HCP according to recommendations of the Advisory Committee for Immunization Practices (ACIP) of the Centers for Disease Control and Prevention (CDC)."

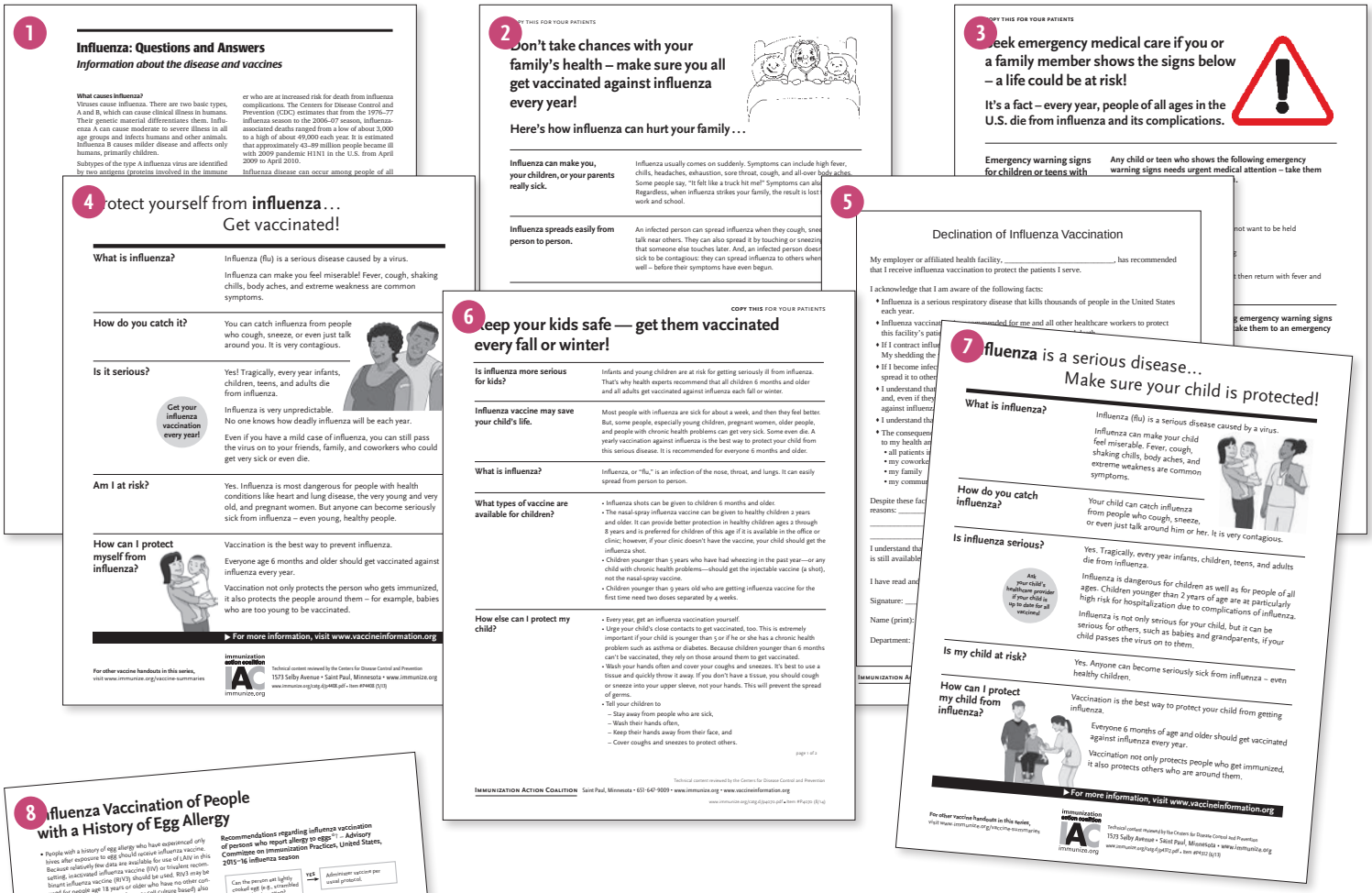
National Business Group on Health (NBGH)
Hospitals Should Require Flu Vaccination for all Personnel to Protect Patients' Health and Their Own Health (10/18/11)
▶ www.businessgrouphealth.org/pub/f314b0a7-2354-d714-511f-57f12807ba2c
"Hospitals should require flu vaccination for all personnel to protect patients' health and their own health."

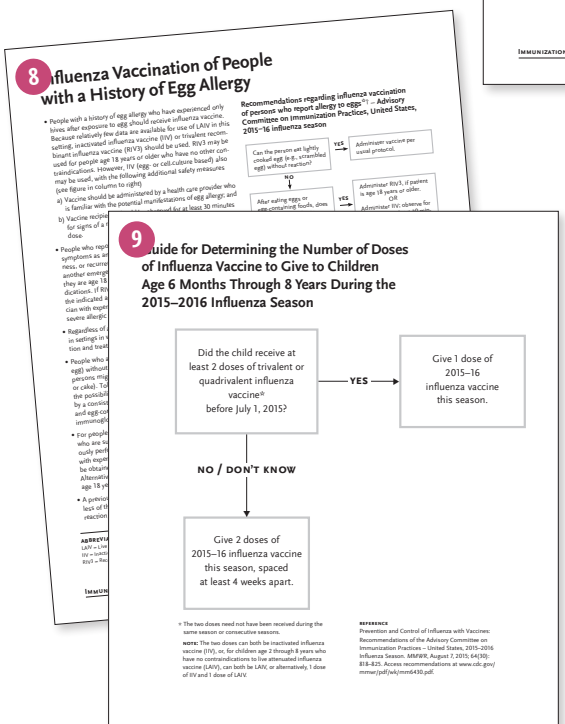
National Patient Safety Foundation (NPSF)
NPSF Supports Mandatory Flu Vaccinations for Healthcare Workers (11/11/15)
▶ www.npsf.org/news/259784/National-Patient-Safety-Foundation-Supports-Mandatory-Flu-Vaccine-for-Health-Care-Workers.htm
"NPSF recognizes vaccine-preventable diseases as a matter of patient 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."

IMMUNIZATION ACTION COALITION Saint Paul, Minnesota • 651-647-9009 • www.immunize.org • www.vaccineinformation.org
www.immunize.org/catg.d/p2014.pdf • Item #P2014 (12/15)

These influenza educational materials will help protect your patients as well as staff

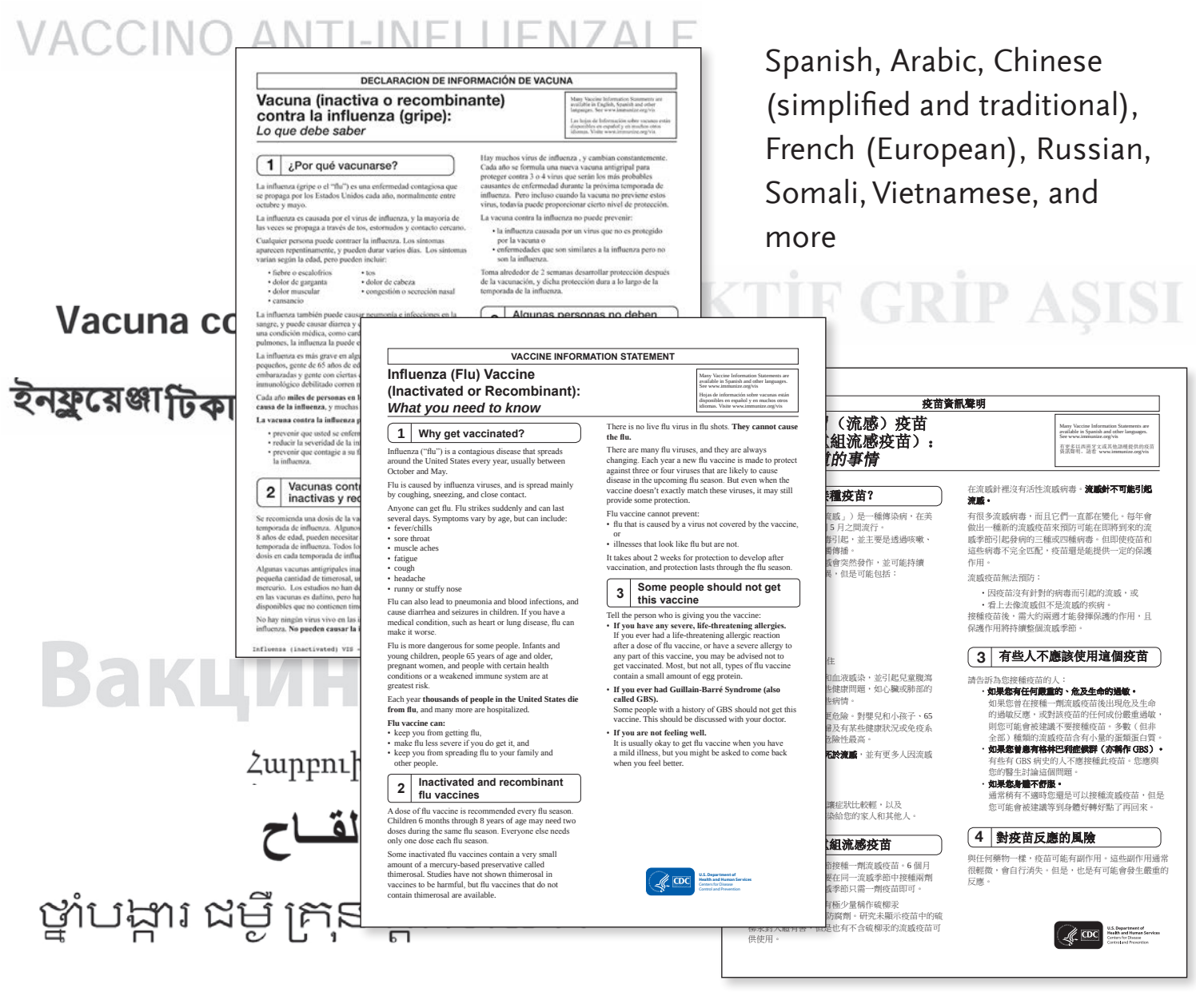




For 8½ x 11" copies of the pieces above, visit IAC's website: www.immunize.org/handouts/influenza-vaccines.asp

1. Influenza: Questions and Answers
   www.immunize.org/catg.d/p4208.pdf
2. Don't take chances with your family's health – make sure you all get vaccinated against influenza every year!
   www.immunize.org/catg.d/p4069.pdf
3. Seek emergency medical care if you or a family member shows the signs below – a life could be at risk!
   www.immunize.org/catg.d/p4073.pdf
4. Protect yourself from influenza… Get vaccinated!
   www.immunize.org/catg.d/p4408.pdf
5. Declination of Influenza Vaccination
   www.immunize.org/catg.d/p4068.pdf
6. Keep your kids safe – get them vaccinated every fall or winter!
   www.immunize.org/catg.d/p4070.pdf
7. Influenza is a serious disease…Make sure your child is protected!
   www.immunize.org/catg.d/p4312.pdf
8. Influenza Vaccination of People with a History of Egg Allergy
   www.immunize.org/catg.d/p3094.pdf
9. Guide for Determining the Number of Doses of Influenza Vaccine to Give to Children Age 6 Months Through 8 Years During the 2016–2017 Influenza Season
   www.immunize.org/catg.d/p3093.pdf

Vaccine Information Statements Are Available in Many Languages!



Spanish, Arabic, Chinese (simplified and traditional), French (European), Russian, Somali, Vietnamese, and more

▶ For all Vaccine Information Statements published in the United States and translations in more than 35 languages, visit **www.immunize.org/vis**.

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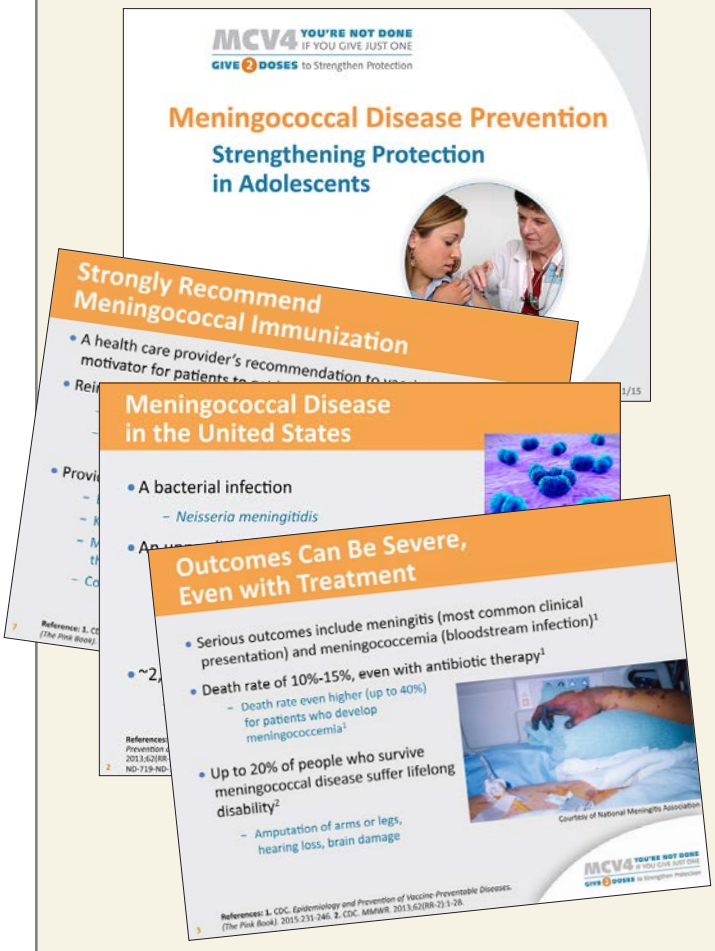
Vaksen kont Influenza

Great Resources on www.Give2MCV4.org to Help Protect Preteens and Teens from Meningococcal A, C, W, Y Disease

- Meningococcal conjugate vaccine (MCV4) provides safe and effective protection against meningococcal disease caused by serogroups A, C, W, and Y.
- MCV4 is recommended at ages 11–12 followed by a second (booster) vaccination at age 16.
- According to CDC's 2015 National Immunization Survey–Teen, **only 33% of teens had received their recommended booster dose by 17 years of age**.

Valuable Resource! Downloadable **slide deck and speaker notes** for healthcare professionals



www.Give2MCV4.org

More Resources

Visit www.Give2MCV4.org to view the full collection of resources designed to help healthcare professionals improve rates for MCV4 and all recommended adolescent vaccines, including:

Recommending MCV4: What to Say and How to Say It
www.give2mcv4.org/wp-content/uploads/2015/07/Toolkit-Recommending-MCV4.pdf

Top 10 Ways to Improve Adolescent Immunization Rates
www.give2mcv4.org/wp-content/uploads/2015/07/Toolkit-Top-10-Ways.pdf

Screening Checklist for Contraindications to HPV, MCV4, MenB, and Tdap
www.immunize.org/catg.d/p4062.pdf

and much more!

"Dear Colleague" Letter: Call-to-Action from IAC, CDC, and professional societies emphasizing the importance of the second dose of MCV4
www.immunize.org/mcv4letter

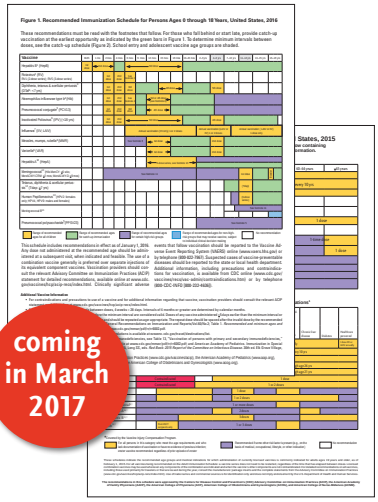
MCV4 YOU'RE NOT DONE IF YOU GIVE JUST ONE
GIVE 2 DOSES to Strengthen Protection

These products are available for purchase from the Immunization Action Coalition

Laminated child/teen and adult immunization schedules — Order one of each for every exam room

▶ To order, visit www.immunize.org/shop, or use the order form on page 18.

Coming in March 2017: The ACIP/AAP/AAFP-approved immunization schedule for people ages 0 through 18 years (8-sided) and the ACIP/AAFP/ACOG/ACNM-approved schedule for adults (8-sided). Both are laminated and washable for heavy-duty use, complete with essential footnotes, and printed in color for easy reading.



Schedules: $7.50 each
Quantity discounts are available.

Wallet-sized immunization record cards for all ages: For children and teens, for adults, and for a lifetime!

Record Cards: $45/box

Now you can give any patient a permanent vaccination record card designed specifically for their age group: child and teen, adult, or lifetime. These brightly colored cards are printed on durable rip-, smudge-, and water-proof paper. Each box contains 250 cards.

▶ To order, visit www.immunize.org/shop, or use the order form on page 18.

Quantity discounts are available. To receive sample cards, contact us: admininfo@immunize.org

DVD: $17 each
Quantity discounts are available.

Training Video: "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.

▶ To order, visit www.immunize.org/shop, or use the order form on page 18.

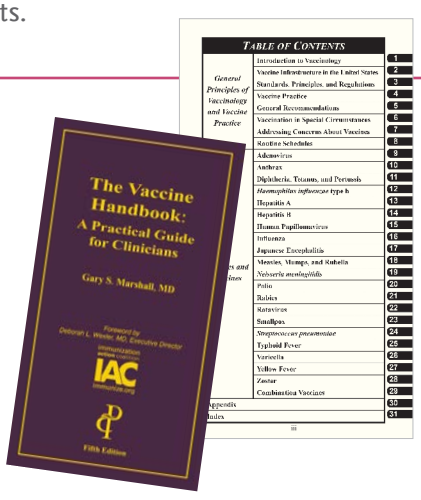
For healthcare settings in California, contact your local health department immunization program for a free copy.

The Vaccine Handbook: A Practical Guide for Clinicians ("The Purple Book") by Gary S. Marshall, MD

During my more than 25 years in the field of immunization education, I have not seen another book that is so brimming with state-of-the-science information. – Deborah L. Wexler, MD, Executive Director, IAC

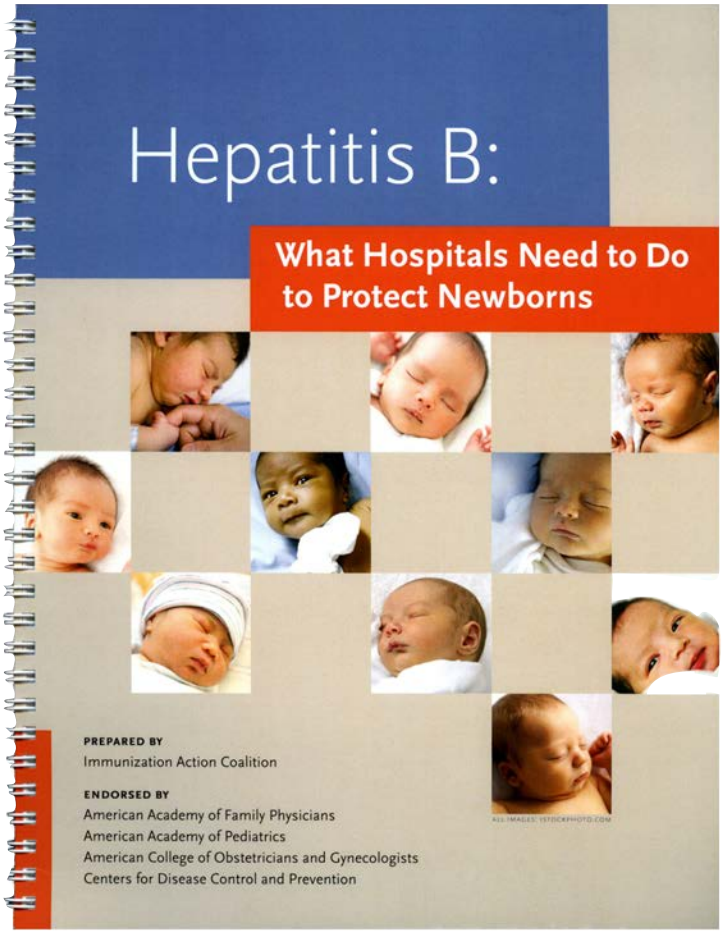
Purchase *The Vaccine Handbook* (560 pages) from IAC at www.immunize.org/vaccine-handbook.

$29.95 + shipping • Discount pricing available.



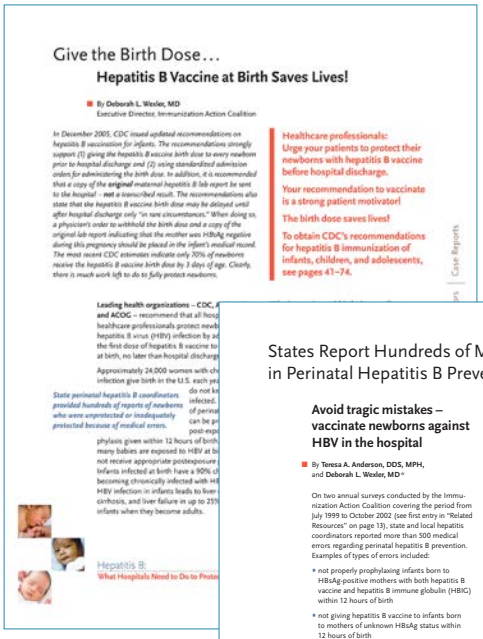
NEW SOFT-COVER EDITION!

Hepatitis B: What Hospitals Need to Do to Protect Newborns



Now available for purchase at $20 per copy from the Immunization Action Coalition

Go to www.immunize.org/shop


Give the Birth Dose…

Hepatitis B Vaccine at Birth Saves Lives!

By Deborah L. Wexler, MD
Executive Director, Immunization Action Coalition

Healthcare professionals: Urge your patients to protect their newborns with hepatitis B vaccine before hospital discharge.

Your recommendation to vaccinate is a strong patient motivator!

The birth dose saves lives!

To obtain CDC's recommendations for hepatitis B immunization of infants, children, and adolescents, see pages 41–74.


States Report Hundreds of Medical Errors in Perinatal Hepatitis B Prevention

Avoid tragic mistakes – vaccinate newborns against HBV in the hospital

By Teresa A. Anderson, DDS, MPH, and Deborah L. Wexler, MD*

Medical Error Type #1
Infants born to HBsAg-positive mothers did not receive both hepatitis B vaccine and HBIG within 12 hours of birth.

Case Report Examples

Consider the following examples of medical errors reported by the nation's hepatitis coordinators where infants were needlessly put at risk for perinatal HBV infection.

The American Academy of Family Physicians (AAFP), American Academy of Pediatrics (AAP), American College of Obstetricians and Gynecologists (ACOG), and the Centers for Disease Control and Prevention (CDC) endorse administering hepatitis B vaccine at birth prior to hospital discharge, and all four have provided a review of this guide.

The Immunization Action Coalition's (IAC) comprehensive guidebook **Hepatitis B: What Hospitals Need to Do to Protect Newborns** is a complete resource for helping hospitals and birthing centers establish, implement, and optimize their birth dose policies.

▶ To order, visit www.immunize.org/shop. Quantity discounts are available. Questions? Contact admininfo@immunize.org

Cost: $20 per copy + shipping
Discount pricing available.
Shipping cost: 1 copy $5.75; 2–10 copies $11.95

84 pages / Dimensions: 9 x 11 x 0.5"

Order Essential Immunization Resources from IAC

Immunization record cards for all: for children and teens, for adults, for a lifetime!

Immunization record cards give healthcare professionals a way to help patients maintain a permanent record of their vaccinations. Having one's own vaccination record is handy for patients when they enter daycare, kindergarten, or college; change healthcare providers; or travel abroad. ▮ The Immunization Action Coalition offers three record cards: child and teen, adult, and lifetime. Each is designed for a specific age group and lists all vaccines recommended for people in that age group. Sized to fit in a wallet, each is brightly colored to stand out and is printed on durable rip-, smudge-, and water-proof paper. ▮ To order record cards or any of our other essential immunization resources, print out and mail or fax the form below, or place your order online at www.immunize.org/shop.

It's convenient to shop IAC online at www.immunize.org/shop

■ ***The Vaccine Handbook: A Practical Guide for Clinicians*** **("The Purple Book") by Gary Marshall, MD**

Fifth edition • 2015 • 560 pages • $29.95 + shipping
Order online at www.immunize.org/vaccine-handbook

■ ***Hepatitis B: What Hospitals Need to Do to Protect Newborns***

Soft-cover edition • 2013 • 84 pages • $20 + shipping
Order online at www.immunize.org/shop

see details on page 17

Order Essential Immunization Resources

■ **Coming March 2017: Laminated 2016 U.S. Immunization Schedules** (details p. 16; call for discounts on bulk orders)

Qty.		1-4 copies–$7.50 each; 5-19 copies–$5.50 each	Amt.
____	R2008	Child/teen immunization schedules	$ _____
____	R2009	Adult immunization schedules	$ _____

■ **DVD – Immunization Techniques: Best Practices with Infants, Children, and Adults** (details p. 16; call for discounts on bulk orders)

1-9 copies–$17 each; 10-24 copies–$10.25 each; 25-49 copies–$7 each

____ D2021 Immunization Techniques: Best Practices with Children/Teens/Adults $ _____

■ **Patient Immunization Record Cards – for children and teens, for adults, and for a lifetime!** (all are wallet-sized; details p. 22; call for discounts on bulk orders)

250 cards/box; 1 box–$45; 2 boxes–$40 each; 3 boxes–$37.50 each; 4-7 boxes–$34.50 each

____ R2003 Child/teen immunization record cards ..... $ _____
____ R2005 Adult immunization record cards ..... $ _____
____ R2004 Lifetime immunization record cards ..... $ _____

Total for Purchases $ _____

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IAC is a 501(c)(3) charitable organization and your contribution is tax deductible to the fullest extent of the law.

Total for Purchases and Contribution $ _____

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Fax this page to: (651) 647-9131 or

Mail this page to: Immunization Action Coalition
2550 University Avenue West, Suite 415 North
Saint Paul, MN 55114

Our federal ID# is 41-1768237.

For Questions or International Orders: Contact us by phone at (651) 647-9009 or email **admininfo@immunize.org**

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