Let’s Review! Healthy Patients Age 65 and Older Need Two Pneumococcal Vaccines Spaced One Year Apart

Despite the fact that more than a year has elapsed since the Centers for Disease Control and Prevention (CDC) first published its recommendations for use of two different pneumococcal vaccines (Prevnar [pneumococcal conjugate vaccine, PCV13, Pfizer] and Pneumovax [pneumococcal polysaccharide vaccine, PPSV23, Merck]) in healthy adults age 65 years and older, confusion abounds about the details of these recommendations.

The Immunization Action Coalition (IAC) receives frequent inquiries about the use of pneumococcal vaccines in older adults, including “Can I give the two vaccines at the same visit?” or “How many months should I wait between doses of the two vaccines?” IAC’s website for healthcare professionals, www.immunize.org, continues to receive large numbers of visitors to its feature section “Ask the Experts” (ATE) (www.immunize.org/askexperts), where CDC experts answer questions about vaccines. The pneumococcal section of ATE has been visited at a rate nearly three times that of any other ATE section, with more than 20,000 visits in January alone.

Let’s review the details of these recommendations. In 2014, followed by an update in 2015, CDC published the following recommendations for the use of two pneumococcal vaccines in healthy adults age 65 years and older:\footnote{1}

\begin{itemize}
  \item Administer 1 dose of Prevnar (PCV13) to people age 65 years and older if they have not received a dose in the past.
  \item One year later, administer 1 dose of Pneumovax (PPSV23).
  \item If your patient already received a dose of Pneumovax at age 65 or older:
    \begin{itemize}
      \item You don’t need to repeat Pneumovax.
      \item However, make sure that all your patients age 65 and older who have not yet had Prevnar receive one dose at least a year after the Pneumovax dose.
    \end{itemize}
\end{itemize}

(For patients who received any pneumococcal vaccine doses prior to age 65, see footnote 2.)

In February, CDC published “Recommended Adult Immunization Schedule, U.S., 2016” (see www.cdc.gov/vaccines/schedules/downloads/adult/adult-combined-schedule.pdf). The pneumococcal vaccine recommendations are fully documented in the schedule and its highly detailed footnotes.

**FOOTNOTES**

1 The 2014 recommendations titled “Use of 13-Valent Pneumococcal Conjugate Vaccine and 23-Valent Pneumococcal Polysaccharide Vaccine Among Adults Aged 265 Years: Recommendations of ACIP” are available at www.cdc.gov/mmwr/preview/mmwrhtml/mm6337a4.htm. The 2015 recommendations titled “Intervals Between PCV13 and PPSV23 Vaccines: Recommendations of ACIP” are available at www.cdc.gov/mmwr/preview/mmwrhtml/mm6434a4.htm.

2 For patients vaccinated prior to age 65 due to high-risk conditions:

\begin{itemize}
  \item If your patient received a dose of Prevnar at an age younger than 65:
    \begin{itemize}
      \item You do not need to repeat Prevnar.
      \item Administer Pneumovax at age 65 years, allowing at least a 1-year interval between it and the earlier dose of Prevnar.
    \end{itemize}
  \item If your patient received Pneumovax at an age younger than 65:
    \begin{itemize}
      \item You need to administer another dose of Pneumovax at age 65 or later (and at least 5 years after the last dose), but first administer Prevnar if your patient hasn’t had a dose, and then administer Pneumovax one year after the Prevnar dose.
    \end{itemize}
\end{itemize}
Needle Tips

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Ask the Experts—continued from page 1

receive PCV13 first, followed by PPSV23 one year later. If the provider is unwilling to stock PCV13, then patients should be referred elsewhere to get PCV13 first. The solution, of course, is to stock PCV13 and PPSV23, both of which are covered by Medicare Part B.

We have a healthy 66-year-old patient who received a dose of PPSV23 in January then received a dose of PCV13 five months later at a different facility. Should the PCV13 dose be repeated since it was given earlier than the 1-year interval recommended by ACIP?

ACIP recommends that healthy people age 65 years and older receive PCV13 first, then PPSV23 one year later. When PCV13 has been given first, ACIP recommends an interval of one year before giving PCV13. What to do when doses of PPSV23 and PCV13 are given without the recommended minimum interval is not addressed in the ACIP recommendations. The CDC subject matter experts have advised that in such a case, the dose given second does not need to be repeated. This is at odds with the usual procedure for a minimum interval violation as described in ACIP’s General Recommendations on Immunization (see www.cdc.gov/mmwr/pdf/rr/rr6002.pdf, page 5). There is no evidence to support that there are benefits to repeating the dose of PCV13. Information about the recommended intervals between pneumococcal vaccines can be found at: www.cdc.gov/mmwr/pdf/ww/mm6434.pdf, pages 944–7.

Diabetes is an indication for giving PPSV23 to patients younger than age 65 years. Does this include both insulin- and non-insulin-dependent diabetes?

Any diagnosis of diabetes, whether type 1 or type 2, is an indication for PPSV23. However, gestational diabetes does not qualify as an indication for PPSV23.

For adults without high-risk conditions, a 1-year interval is recommended between PCV13 and PPSV23 vaccines. What is the definition of a year?

Does it need to be exactly one year? We have provided PCV13 to some individuals during flu season this year and told them to get the PPSV23 next year when they get their flu shot. What if they received their flu shot in November this year, but return for their flu shot in October next year? What you describe is an excellent strategy for administration of PCV13 and PPSV23 to people age 65 years and older. ACIP does not define “one year” but this is assumed to be one calendar year. Receiving PPSV23 a few days or weeks earlier than one calendar year after PCV13 is not a medical problem. However, it could be a problem for reimbursement since Medicare will only pay for both vaccines if they are given at least 11 months apart. Private insurance may have similar rules. Here is the wording from the Centers for Medicare and Medicaid (CMS):

“An initial pneumococcal vaccine may be administered to all Medicare beneficiaries who have never received a pneumococcal vaccine under Medicare Part B. A second, pneumococcal vaccine may be administered 1 year after the first vaccine was administered (i.e., 11 full months have passed following the month in which the last pneumococcal vaccine was administered).”

Why is there no recommendation for patients older than age 65 years to get a booster dose of PPSV23 if they first received it at age 65 years or older? It seems to me that their protection against pneumococcal disease would benefit from a booster dose of PPSV23 five or ten years after the first dose.

People age 65 and older should be given a second dose of PPSV23 if they received the first dose 5 or more years previously and were younger than 65 years at the time of the first vaccination. Protection from a single dose of PPSV23 at age 65 years or older is believed to persist for 5–10 years. The benefit and safety of a second dose given after age 65 years is uncertain. Until such data are available, ACIP recommends only a single dose at age 65 years or older.

Ask the Experts—continued on page 3

IAC’s “Ask the Experts” team from the Centers for Disease Control and Prevention

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I have a patient who takes adalimumab (Humira) for rheumatoid arthritis. Does a person who takes adalimumab meet the definition of immunosuppression for the purposes of PCV13 vaccination? Adalimumab is a potent anti-inflammatory drug that blocks the activity of tumor necrosis factor (TNF). Adalimumab is considered immunosuppressive because serious infections have been reported in people taking the drug, including tuberculosis and infections caused by viruses, fungi, or bacteria. Consequently, a person taking adalimumab or other drugs that affect TNF activity (such as infliximab [Remicade], certolizumab pegol [Cimzia], golimumab [Simponi], or etanercept [Enbrel]) should be considered to have immunosuppression and receive PCV13.

A healthy child received only one dose of PCV at age 10 months. She is now 6 years old. Our state requires one dose of PCV13 after the first birthday for school attendance. Her physician says because she is older than 59 months, she does not need another dose of PCV13. What should we do in this situation?

ACIP does not recommend routine PCV13 vaccination of healthy children 60 months of age or older. If there is a school requirement, the simplest solution is to give the child one dose of PCV13. However, health insurance may not pay for this dose. For more information on the ACIP recommendations for pneumococcal vaccination of children, go to www.cdc.gov/mmwr/pdf/rr/rr5911.pdf.

Meningococcal ACWY vaccines

I have an HIV-positive 64-year-old patient who received meningococcal conjugate vaccine last week. Was this the correct vaccine for this patient or should he have gotten MPSV4 due to his age? Also, should this patient get another dose in 2 months?

Quadrivalent meningococcal conjugate vaccine (MenACWY [MCV4]; Menactra, Sanofi Pasteur; Menveo, GSK) was the correct vaccine in this situation. The 2013 ACIP recommendations on meningococcal vaccination recommend the use of meningococcal conjugate vaccine in adults age 56 years and older who (1) were vaccinated previously with MenACWY and now need revaccination, or (2) are recommended to receive multiple doses. ACIP does not consider HIV infection alone to be an indication for MenACWY vaccine. However, if the decision is made to vaccinate a person with HIV infection, the patient should receive 2 doses of MenACWY separated by 8–12 weeks. Both MenACWY vaccines are licensed for use in people age 55 years, which means that the use of these vaccines in people age 56 and older is off-label but recommended by ACIP.

We have a 68-year-old who has been asplenic since 2009. She had one dose of meningococcal polysaccharide vaccine (MPSV4, Menomune, Sanofi Pasteur) in 2009, but no subsequent dose. She is now due for a booster. Should she receive 2 doses of MenACWY, 2 months apart, to catch up, or just one dose?

This situation is not addressed in the most recent ACIP guidelines for meningococcal conjugate vaccine. It is the CDC meningococcal subject matter expert’s opinion that this patient should receive 2 doses of MenACWY separated by at least 8 weeks, followed by a booster dose of MenACWY every 5 years thereafter. The concern is that having had only MPSV4 previously, she may not have an adequate booster response to a single dose of MenACWY.
Meningococcal B vaccines

I know the schedule for Trumenba (meningococcal serogroup B vaccine, Pfizer) is 0, 2, and 6 months. What are the MINIMUM intervals between doses of Trumenba and Bexsero (meningococcal serogroup B vaccine, GSK)? Our immunization information system needs to know the minimum intervals in order to assure that patients are appropriately vaccinated. Neither ACIP nor the CDC meningococcal subject matter experts have addressed this issue. Given the lack of guidance, we must assume that the routine intervals are also the minimum intervals: for Trumenba, 8 weeks between doses 1 and 2, 4 months between doses 2 and 3, and 6 months between doses 1 and 3; for Bexsero, 4 weeks between doses 1 and 2. It is important to use these intervals when scheduling doses. However, if these intervals are violated, the doses still count and do not need to be repeated.

I have a patient who was given Trumenba in August. Two months later she was given a dose of Bexsero. How should I proceed with her MenB vaccination series? We stock both vaccines.
The ACIP meningococcal serogroup B vaccine recommendations (www.cdc.gov/mmwr/pdf/ww/mm6441.pdf, pages 1171–6) state that the same vaccine must be used for all doses in the MenB series. So the clinician needs to complete a series with one or the other vaccine. If a person has already received 1 dose of Bexsero and one of Trumenba, then pick a brand and finish a recommended schedule with that brand. Ignore the extra dose of the other product. The next dose in the series (either Trumenba or Bexsero) should be separated from the previous dose of Bexsero by at least 1 month.

My 8-year-old patient had a bone marrow transplant and has just finished the post-transplant re-vaccination process. Should I offer her vaccination with a MenB vaccine now or wait two years until she is 10 years old?
Neither brand of meningococcal B vaccine is approved by FDA or recommended by ACIP for people younger than age 10 years. You should defer meningococcal B vaccination until she is 10 years of age.

DTaP/Tdap vaccines

Can Quadracel (DTaP-IPV, Sanofi Pasteur) be used to complete a series with vaccines other than Daptacel (DTaP, Sanofi Pasteur) or Pentacel (DTaP-IPV-Hib, Sanofi Pasteur)? ACIP recommends the same brand of DTaP be used for all doses but that a different brand can be used if necessary. So Quadracel can be used in a series with another brand of DTaP if necessary. CDC published a short MMWR article about Quadracel on Sept. 4, 2015 (www.cdc.gov/mmwr/pdf/ww/mm6434.pdf, pages 948–9).

There is a debate within my clinical department about not allowing influenza vaccine to be given with DTaP and PCV13. Are there data that state these should not be given concomitantly?
A CDC study has shown a small increased risk for febrile seizures during the 24 hours after a child receives the inactivated influenza vaccine at the same time as the PCV13 vaccine or DTaP vaccine. However, the risk of febrile seizure with any combination of these vaccines is small and ACIP recommends giving these vaccines at the same visit if indicated. See www.cdc.gov/vaccinesafety/concerns/febrile-seizures.html for more information.

One of our staff inadvertently gave Tdap to an infant instead of DTaP. Now what should be done?
If Tdap was inadvertently administered to a child younger than 7 years of age, it should not be counted as either the first, second, or third dose of DTaP. The dose should be repeated with DTaP. Continue vaccinating on schedule. If the dose of Tdap was administered for the fourth or fifth DTaP dose, the Tdap dose can be counted as valid. Please remind your staff to always check the vaccine vial at least three times before administering any vaccine.

We would like to avoid stockling both Tdap andTd vaccines. Is CDC likely to recommend that Tdap completely replace Td in the immunization schedule in the near future?
Currently, ACIP recommends giving only 1 dose of Tdap to adolescents and adults who have not previously received the vaccine, with the exception of pregnant women, who should be vaccinated during each pregnancy. ACIP is unlikely to recommend routine Tdap revaccination for groups other than pregnant women. Vaccine providers will need to continue to stock Td vaccine in order to administer it to patients who need to complete the full primary 3-dose tetanus and diphtheria series and also to administer 10-year booster doses of Td throughout the lifetime of those who have completed the primary series. Note that if a person who previously received Tdap needs a booster dose of Td (as a routine booster dose or for wound management), it is acceptable to administer Tdap if Td is not available.

Zoster vaccine

I know that ACIP only recommends zoster vaccine for adults age 60 years and older, although it is licensed for use in those 50 years and older. If I choose to vaccinate patients age 50–59 years, are there any criteria as to which patients in this age group might benefit most from zoster vaccination?
For vaccination providers who choose to use zoster vaccine among certain patients age 50 through 59 years despite the absence of an ACIP recommendation, factors that might be considered include particularly poor anticipated tolerance of herpes zoster or postherpetic neuralgia symptoms (e.g., attributable to preexisting chronic pain, severe depression, or other comorbid conditions; or inability to tolerate treatment medications because of hypersensitivity or interactions with other chronic medications). More information on this issue is available at www.cdc.gov/mmwr/pdf/ww/mm6044.pdf, page 1528.

We have an 18-year-old male patient with a history of chickenpox disease. He now has shingles. We are unsure what to advise for future vaccination. Should we administer zoster vaccine?
ACIP does not recommend zoster vaccination for people younger than age 60 years regardless of their history of shingles. Zoster vaccine is licensed by FDA for people age 50 years and older so a clinician may choose to vaccinate a person 50–59 years of age. Insurance may not pay for a dose of zoster vaccine given to a person younger than age 60 years.

My patient is a 66-year-old male with a condition that requires treatment with intravenous immune globulin (IVIG) once a month. Can he receive zoster vaccine?
Yes. The concern about interference by circulating antibody (from the IVIG) with varicella vaccine does not apply to zoster vaccine. The amount of antigen in zoster vaccine is high enough to offset any effect of circulating antibody. Also, studies of zoster vaccine were performed on patients who had circulating antibody (because they had varicella earlier in life) or who had received antibody-containing blood products and there was no appreciable effect on efficacy. Some patients who receive IVIG are immunosuppressed. Since immunosuppression is a contraindication to zoster vaccine, it is important to screen to ensure a patient is not immunosuppressed when administering zoster vaccine.
Before administering zoster vaccine is it necessary to ask if the person has ever had chickenpox or shingles?
No. All people age 60 years or older, whether they have a history of chickenpox or shingles or not, should be given zoster vaccine unless they have a medical contraindication to vaccination.
For patients age 60 or older who don’t remember having chickenpox in the past, should we test them for varicella immunity before giving zoster vaccine?

No. Simply vaccinate them with zoster vaccine according to the ACIP recommendations.

We weren’t familiar with the recommendation (not to test) and tested a 60-year-old for varicella antibody because she said she never had chickenpox. Her result was negative. Should this patient receive zoster vaccine or varicella vaccine?

In this situation, since you’ve tested the patient and the results were negative, the patient should receive varicella vaccine. A person age 60 years or older who has no medical contraindications is eligible for zoster vaccine, regardless of their memory of having had chickenpox. However, if an adult age 60 years or older is tested for varicella immunity for whatever reason, and the test is negative, he/she should be given 2 doses of varicella vaccine at least 4 weeks apart, not zoster vaccine. It is important to note that at the current time, zoster vaccine is not recommended for individuals whose varicella immunity is based on vaccination. See www.cdc.gov/vaccines/vpd/var/shingles/hcp-vaccination.htm for more information.

General vaccine questions

We have a question concerning delaying vaccinations for an infant born to a heroin-addicted mother. We had a foster parent come into our health department requesting only certain vaccines for a 3-month-old, stating that the private physician recommends delaying the schedule due to the possible residual effects of the heroin. The baby appeared to be healthy. Heroin use or addiction of the mother is not a reason to delay vaccination of an otherwise healthy infant.

What is the provider’s liability when using standing order protocols?

While you did not say this explicitly, we assume the concern is about a vaccine injury in a person who was vaccinated using a standing order. Of course, as long as the person is properly screened for contraindications and precautions, an injury from a vaccine is very unlikely. In the event that an injury does occur, the National Vaccine Injury Compensation Program (VICP) provides liability protection for the vaccinator and the clinician who signed the standing order for any vaccine that is covered by the vaccine injury compensation program (all vaccines that are routinely administered to children are covered by the program for all ages of patients). More information about the VICP is available on their website at www.hrsa.gov/vaccinecompensation/index.html.

The protective cap on a single-dose vial was removed but the vaccine was not needed. No needle punctured the rubber seal. According to CDC’s Vaccine Storage & Handling Toolkit, the vial without the cap should be discarded at the end of workday. If no needle punctured the seal, what is the reasoning for discarding the vaccine?

Removing the protective cap increases the likelihood the septum or stopper could be punctured. The puncture may not be visible. It is important to ensure that the rubber seal on single-dose vials is not punctured because single-dose vials do not contain a preservative. Once the protective cap has been removed, the vaccine should be discarded at the end of the workday because it may not be possible to determine if the rubber seal has been punctured. CDC’s Vaccine Storage & Handling Toolkit is available at www.cdc.gov/vaccines/recs/storage/toolkit.
Vaccine Highlights

Recommendations, schedules, and more

Editor’s note: The information in Vaccine Highlights is current as of March 11, 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. At its most recent meeting, held on Feb. 24, the committee discussed HPV, influenza, cholera, meningococcal, and Japanese encephalitis vaccines. The only vote taken during the meeting was to approve the 2016–17 influenza vaccination recommendations.

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 June 22–23 and Oct. 19–20. 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

CDC immunization schedules

Each year, CDC’s Advisory Committee on Immunization Practices publishes U.S. immunization schedules for children/teens and adults to reflect current recommendations for the use of licensed vaccines.

**FOR CHILDREN AND TEENS**


**FOR ADULTS**

On Feb. 1, CDC published “Recommended Immunization Schedule for Adults Aged 19 Years or Older—U.S., 2016” online at www.cdc.gov/vaccines/schedules/downloads/adult/adult-combined-schedule.pdf. The Feb. 5 issue of MMWR also included an article summarizing the changes in the 2016 adult schedule. It is available at www.cdc.gov/mmwr/volumes/65/wr/pdfs/mm6504.pdf, pages 88–90.

More CDC news

On Feb. 19, CDC published “Notes from the Field: Administration Error Involving a Meningococcal Conjugate Vaccine—U.S., Mar. 1, 2010–Sept. 22, 2015 in MMWR. In this report which examined data from VAERS, the researchers found 407 recipients in whom the meningococcal conjugate vaccine Menveo (GSK) had been improperly reconstituted and administered. See www.cdc.gov/mmwr/volumes/65/rr/mm6506a4.htm.

On Feb. 5, CDC published “Surveillance of Vaccination Coverage Among Adult Populations—U.S., 2014,” in MMWR Surveillance Summary (www.cdc.gov/mmwr/volumes/65/ss/ss6501.pdf). This report is based on data from CDC’s National Health Interview Survey (NHIS) and shows that vaccination coverage overall remained low for adults and that there continue to be missed opportunities to vaccinate.

On Dec. 18, 2015, CDC published “Notes from the Field: Injection Safety and Vaccine Administration Errors at an Employee Influenza Vaccination Clinic—New Jersey, 2015,” in MMWR (www.cdc.gov/mmwr/pdf/wk/mm6449.pdf, pages 1363–4). This article details the vaccine administration and vaccine storage and handling errors committed by a contracted health services company at an employee influenza vaccination clinic and how the state immunization program responded to the situation.

April 16–23 is National Infant Immunization Week (NIIW), an annual observance to highlight the importance of protecting infants from vaccine-preventable diseases. Information is available at www.cdc.gov/vaccines/events/niiw/index.html. CDC’s 47th National Immunization Conference will be held Sept. 13–15, in Atlanta. For more information, visit www.cdc.gov/vaccines/events/nic/index.html.

FDA vaccine news

On Jan. 14, FDA announced the expanded indication for Gardasil 9 (HPV9, Merck) to include males age 16–26 years. See detailed information at www.fda.gov/biologicsbloodvaccines/vaccines/approvedproducts/ucm426445.htm.

Current VIS dates

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.

- 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........10/25/11 Polio........11/8/11
- Hepatitis B........2/2/12 Rabies........10/6/09
- HPV-Cervarix......5/3/11 Rotavirus.......4/15/15
- HPV-Gardasil......5/17/15 Shingles.......10/6/09
- HPV-Gardasil 9...4/15/15 Td........2/24/15
- Influenza........8/7/15 Tet........2/24/15
- Japanese enceph...1/24/14 Typhoid.......5/29/12
- MCV4/MPV4.......10/14/11 Yellow fever...3/30/11
- MenB........8/14/15

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

AIP Express

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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 2014 National Immunization Survey–Teen, only 29% of teens had received their recommended booster dose by 17 years of age.

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**

- **Top 10 Ways to Improve Adolescent Immunization Rates**

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

“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**
Use This Checklist to Screen for Contraindications and Precautions to Vaccines for Children and Teens

Screening Checklist for Contraindications to Vaccines for Children and Teens

For parents/guardians: The following questions will help us determine which vaccines your child may be given today. If you answer “yes” to any question, it does not necessarily mean 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 child sick today? □ yes □ no □ don’t know

2. Does the child have allergies to medications, food, a vaccine component, or latex? □ yes □ no □ don’t know

3. Has the child had a serious reaction to a vaccine in the past? □ yes □ no □ don’t know

4. Has the child had a health problem with lung, heart, kidney or metabolic disease [e.g., diabetes], asthma, or a blood disorder? Is he/she on long-term aspirin therapy? □ yes □ no □ don’t know

5. If the child to be vaccinated is 2 through 4 years of age, has a healthcare provider told you that the child had wheezing or asthma in the past 12 months? □ yes □ no □ don’t know

6. If your child is a baby, have you ever been told he or she has had intussusception? □ yes □ no □ don’t know

7. Has the child, a sibling, or a parent had a seizure; has the child had brain or other nervous system problems? □ yes □ no □ don’t know

8. Does the child have cancer, leukemia, HIV/AIDS, or any other immune system problem? □ yes □ no □ don’t know

9. In the past 3 months, has the child taken medications that affect the immune system such as prednisone, other steroids, or anticancer drugs; drugs for the treatment of rheumatoid arthritis, Crohn’s disease, or psoriasis; or had radiation treatments? □ yes □ no □ don’t know

10. In the past year, has the child received a transfusion of blood or blood products, or been given immune (gamma) globulin or an antiviral drug? □ yes □ no □ don’t know

11. Is the child/teen pregnant or is there a chance she could become pregnant during the next month? □ yes □ no □ don’t know

12. Has the child received vaccinations in the past 4 weeks? □ yes □ no □ don’t know

Did you bring your immunization record card with you? □ yes □ no

It is important to have a personal record of your child’s vaccinations. If you don’t have one, ask the child’s healthcare provider to give you one with all your child’s vaccinations on it. Keep it in a safe place and bring it with you every time you seek medical care for your child. Your child will need this document for school, for employment, or for international travel.

For a ready-to-copy 8½ x 11” of this two-page screening checklist, visit www.immunize.org/catg.d/p4060.pdf

This checklist covers precautions and contraindications to vaccines for children and teens.

Patients or their parents complete the checklist on page 1.

Page 2 provides detailed information for healthcare professionals about why each question is asked.
Use This Checklist to Screen for Contraindications and Precautions to Vaccines for Adults

This checklist covers precautions and contraindications to vaccines for adults.

Patients complete the checklist on page 1.

Page 2 provides detailed information for healthcare professionals about why each question is asked.

For a ready-to-copy 8½ x 11” of this two-page screening checklist, visit www.immunize.org/catg.d/p4065.pdf

---

### Screen for Contraindications to Vaccines for Adults

**For patients:** The following questions will help us determine which vaccines you may be given today. If you answer “yes” to any question, it does not necessarily mean you 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.

<table>
<thead>
<tr>
<th>Question</th>
<th>Possible Answers</th>
<th>Instructions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Are you sick today?</td>
<td>Yes/No/Don’t know</td>
<td></td>
</tr>
<tr>
<td>2. Do you have allergies to medications, food, a vaccine component, or latex?</td>
<td>Yes/No/Don’t know</td>
<td></td>
</tr>
<tr>
<td>3. Have you ever had a serious reaction after receiving a vaccination?</td>
<td>Yes/No/Don’t know</td>
<td></td>
</tr>
<tr>
<td>4. Do you have a long-term health problem with heart disease, lung disease, asthma, kidney disease, metabolic disease (e.g., diabetes), anemia, or other blood disorder?</td>
<td>Yes/No/Don’t know</td>
<td></td>
</tr>
<tr>
<td>5. Do you have cancer, leukemia, HIV/AIDS, or any other immune system problem?</td>
<td>Yes/No/Don’t know</td>
<td></td>
</tr>
<tr>
<td>6. In the past 3 months, have you taken medications that affect your immune system, such as prednisone, other steroids, or antiviral drugs?</td>
<td>Yes/No/Don’t know</td>
<td></td>
</tr>
<tr>
<td>7. Have you had a seizure or a brain or other nervous system problem?</td>
<td>Yes/No/Don’t know</td>
<td></td>
</tr>
<tr>
<td>8. During the past year, have you received a transfusion of blood or blood products, or been given immune (gamma) globulin or an antiviral drug?</td>
<td>Yes/No/Don’t know</td>
<td></td>
</tr>
<tr>
<td>9. For women: Are you pregnant or is there a chance you could become pregnant during the next month?</td>
<td>Yes/No/Don’t know</td>
<td></td>
</tr>
<tr>
<td>10. Have you received any vaccinations in the past 4 weeks?</td>
<td>□</td>
<td></td>
</tr>
</tbody>
</table>

**FORM COMPLETED BY ______________________________________________ DATE ________________________

**FORM REVIEWED BY ______________________________________________ DATE ________________________

Did you bring your immunization record card with you? □ Yes □ No

It is important for you to have a personal record of your vaccinations. If you don’t have a personal record, your healthcare provider will create one for you. Make sure your healthcare provider records all your vaccinations on it.

---

**Information for Healthcare Professionals about the Screening Checklist for Contraindications to Vaccines for Adults**

**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 more, consult the references listed at the end.

1. □ History of anaphylactic reaction (see question 2) to a previous dose of vaccine or vaccine component is a contraindication for subsequent doses (1). Under normal circumstances, vaccines are administered after a previous anaphylactic reaction. However, no one may give the fourth dose of the HIB vaccine if the child had a severe allergic reaction (e.g., anaphylaxis) with the third dose or if the child has had any other severe reaction to a vaccine component.

2. □ You have had a serious reaction after receiving a vaccination.

3. □ You have a long-term health problem with heart disease, lung disease, asthma, kidney disease, metabolic disease (e.g., diabetes), anemia, or other blood disorder.

4. □ You have a serious reaction after receiving a vaccination.

5. □ You have a serious reaction after receiving a vaccination.

6. □ You have a serious reaction after receiving a vaccination.

7. □ You have a serious reaction after receiving a vaccination.

8. □ You have a serious reaction after receiving a vaccination.

9. □ You have a serious reaction after receiving a vaccination.

10. □ You have a serious reaction after receiving a vaccination.

---

**References**


2. [Inactivated influenza vaccine and Tdap are both recommended for all adults aged ≥18 years regardless of age, gender, medical condition, or risk status.](https://www.cdc.gov/vaccines/pubs/pinkbook/downloads/2012/ip_vacc.pdf)


---

For more information, visit www.immunize.org.
Standing Orders Template for Administering Vaccines to Children/Teens and Adults

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 (pneumococcal) infection according to the following criteria:

- Routine pneumococcal vaccination – Aims adults age 65 years or older for routine pneumococcal vaccination. Pneumococcal conjugate vaccine (PCV13) should be administered initially to all previously unvaccinated adults age 65 years or older. Pneumococcal polysaccharide vaccine (PPSV23) is recommended for all adults ages 65 years or older. For complete details, see section 5 (page 2).
- Risk-based pneumococcal vaccination – Age 19 through 64 years or older. For complete details, see section 5 (page 2).

2. Screen for Contraindications and Precautions

- Contraindications – Do not give pneumococcal vaccine (PCV13 or PPSV23) to a person who has experienced a serious allergic reaction (anaphylaxis) to a previous dose of the vaccine or to any of its components. For a list of the vaccine’s ingredients, see section 4 (page 2).
- Precautions – For vaccine that is to be administered IM, choose the needle gauge, needle length, and injection site according to the following table:

<table>
<thead>
<tr>
<th>ORDER AND WEIGHT OF PATIENT</th>
<th>NEEDLE GAUGE</th>
<th>NEEDLE LENGTH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female or male less than 130 lbs</td>
<td>22–25</td>
<td>1½”</td>
</tr>
<tr>
<td>Female or male 130–152 lbs</td>
<td>22–25</td>
<td>1½”</td>
</tr>
<tr>
<td>Female 153–200 lbs</td>
<td>22–25</td>
<td>1–1½”</td>
</tr>
<tr>
<td>Female 201+ lbs</td>
<td>22–25</td>
<td>1–1½”</td>
</tr>
<tr>
<td>Male 130–152 lbs</td>
<td>22–25</td>
<td>1–1½”</td>
</tr>
<tr>
<td>Male 153–200 lbs</td>
<td>22–25</td>
<td>1–1½”</td>
</tr>
<tr>
<td>Male 201+ lbs</td>
<td>22–25</td>
<td>1–1½”</td>
</tr>
</tbody>
</table>

A needle gauge of 22–25 may be used in patients weighing less than 130 lbs. A needle gauge of 1–1½” may be used in patients weighing more than 130 lbs. For details, see section 5 (page 2).

Visit www.immunize.org/standing-orders for all sets.

Click blue text to view standing orders documents

<table>
<thead>
<tr>
<th>STANDING ORDER (date of latest revision)</th>
<th>VACCINES</th>
<th>STANDING ORDER (date of latest revision)</th>
</tr>
</thead>
<tbody>
<tr>
<td>child (OCT 2012)</td>
<td>DTaP</td>
<td>—</td>
</tr>
<tr>
<td>child/teen (JUNE 2013)</td>
<td>HepA</td>
<td>adult (JUNE 2013)</td>
</tr>
<tr>
<td>child/teen (OCT 2012)</td>
<td>HepB</td>
<td>adult (OCT 2015)</td>
</tr>
<tr>
<td>child (JUNE 2015)</td>
<td>Hib</td>
<td>adult (JUNE 2015)</td>
</tr>
<tr>
<td>child/teen (MAY 2015)</td>
<td>HPV</td>
<td>adult (MAY 2015)</td>
</tr>
<tr>
<td>child/teen (OCT 2014)</td>
<td>IPV (polio)</td>
<td>—</td>
</tr>
<tr>
<td>child/teen (SEPT 2015)</td>
<td>Influenza</td>
<td>adult (AUG 2015)</td>
</tr>
<tr>
<td>child/teen (JUNE 2013)</td>
<td>MMR</td>
<td>adult (JUNE 2013)</td>
</tr>
<tr>
<td>child/teen (JULY 2015)</td>
<td>MenACWY (MCV4), MPSV</td>
<td>adult (JUNE 2013)</td>
</tr>
<tr>
<td>teen (DEC 2015)</td>
<td>MenB</td>
<td>adult (DEC 2015)</td>
</tr>
<tr>
<td>child/teen (MAY 2015)</td>
<td>PCV</td>
<td>adult (NOV 2015)</td>
</tr>
<tr>
<td>child (FEB 2014)</td>
<td>Rotavirus</td>
<td>—</td>
</tr>
<tr>
<td>child (FEB 2014)</td>
<td>Tdap</td>
<td>pregnant woman (FEB 2014)</td>
</tr>
<tr>
<td>child/teen (APRIL 2013)</td>
<td>Tdap/Td</td>
<td>adult (OCT 2015)</td>
</tr>
<tr>
<td>child/teen (FEB 2014)</td>
<td>Varicella</td>
<td>adult (FEB 2014)</td>
</tr>
<tr>
<td></td>
<td>Zoster</td>
<td>adult (NOV 2015)</td>
</tr>
</tbody>
</table>

All sets of standing orders for routinely recommended vaccines are available at www.immunize.org/standing-orders
One-time, **FREE** workshop on raising your practice’s adult immunization rates while streamlining your practice

**Coming soon to a city near you!**

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  - March 15, 2016
- **Phoenix, Ariz.**
  - March 17, 2016
- **Tucson, Ariz.**
  - March 18, 2016
- **Orlando / Daytona Beach, Fla.**
  - April 12, 2016
- **Fort Lauderdale, Fla.**
  - April 13, 2016
- **Atlanta, Ga.**
  - April 15, 2016
- **Boston, Mass.**
  - June 6, 2016
- **New York, N.Y.**
  - June 8, 2016
- **Philadelphia, Pa.**
  - June 9, 2016
- **Baltimore, Md.**
  - June 11, 2016

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**NO-COST**

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✔ This workshop is a one-stop shop to help you easily implement standing orders in your practice.

✔ Using standing orders for adult immunizations can help your practice be a leader in quality adult care.

✔ Our support for your practice does not end with the workshop. You receive full access to direct phone and email support for one year after attending.

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[www.StandingOrders.org](http://www.StandingOrders.org)

**LED BY NATIONALLY RECOGNIZED EXPERTS**

LJ Tan, MS, PhD, Chief Strategy Officer, Immunization Action Coalition

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

William Atkinson, MD, MPH, Associate Director for Immunization Education, Immunization Action Coalition

Alexandra Stewart, JD, Associate Professor, George Washington University

This free workshop is provided by the Immunization Action Coalition (IAC), with sponsorship from Pfizer, Inc.
Use These Handy Guides to Help Your Practice Administer Vaccines Properly

- Post these sheets in your vaccine preparation area to help train staff in proper administration technique.
- All technical content is reviewed by CDC.

### Administering Vaccines: Dose, Route, Site, and Needle Size

<table>
<thead>
<tr>
<th>Vaccine</th>
<th>Dose</th>
<th>Route</th>
<th>Site</th>
<th>Needle Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hib-HepB (Comvax)</td>
<td>.2 mL (.1 mL in MMRV (ProQuad)</td>
<td>Intramuscular (IM) injection</td>
<td>Subcutaneous (Subcut) injection</td>
<td>≥19 yrs: 1.0 mL, ≥3 yrs: 0.5 mL</td>
</tr>
<tr>
<td>Hib-HepB (Twinrix)</td>
<td>.5 mL IM</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Meningococcal serogroup B</td>
<td>.5 mL IM</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pneumococcal conjugate</td>
<td>.5 mL IM</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pneumococcal polysaccharide</td>
<td>.5 mL IM</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Polio, inactivated (IPV)</td>
<td>.5 mL IM or SubCut</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Polio, live-attenuated (SOS)</td>
<td>0.65 mL Subcut</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Varicella (V)</td>
<td>.8 mL IM</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Varicella-zoster virus (Zoster)</td>
<td>.8 mL IM</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hepatitis A</td>
<td>.5 mL IM</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hepatitis B (HepB)</td>
<td>.5 mL IM</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inactivated influenza (IIV)</td>
<td>.5 mL IM</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Live Attenuated Influenza Vaccine (LAIV)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Measles, Mumps, Rubella (MMR)</td>
<td>.5 mL IM</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Measles, mumps, rubella (MMR2)</td>
<td>.5 mL IM</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Measles, mumps, rubella (MMR-IIV)</td>
<td>.5 mL IM</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mumps, MMR, and Varicella (MMRV)</td>
<td>.5 mL IM</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mumps, Rubella, Varicella (MRV)</td>
<td>.5 mL IM</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Measles, mumps, rubella (MMR-IIV)</td>
<td>.5 mL IM</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Meningococcal serogroup C</td>
<td>.5 mL IM</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Meningococcal serogroup A</td>
<td>.5 mL IM</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Meningococcal serogroup Y</td>
<td>.5 mL IM</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Meningococcal serogroup B</td>
<td>.5 mL IM</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Meningococcal conjugate (MenACWY)</td>
<td>.5 mL IM</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Meningococcal polysaccharide (MenB)</td>
<td>.5 mL IM</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pneumococcal conjugate (PCV)</td>
<td>.5 mL IM</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pneumococcal polysaccharide (PPSV23)</td>
<td>.5 mL IM</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Human papillomavirus (HPV)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Live virus (V)</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Recombinant (r)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Recombinant (v)</td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>Recombinant (r)</td>
<td></td>
<td></td>
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<tr>
<td>Recombinant (v)</td>
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<td>Recombinant (r)</td>
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<td>Recombinant (v)</td>
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<td>Recombinant (r)</td>
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<td>Recombinant (r)</td>
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<td>Recombinant (v)</td>
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</tr>
<tr>
<td>Recombinant (r)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Recombinant (v)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### How to Administer Intramuscular, Intradermal, and Intranasal Influenza Vaccines

**Intramuscular (IM) injection**
- Administer the vaccine into the muscle of the arm using a sterile, single-use needle and syringe combination.
- For infants and toddlers, administer the dose in the anterolateral thigh muscle.
- For children and adults, administer the dose in the deltoid muscle of the arm.
- If the vaccine is being administered by injection, use a 1” needle.
- If the vaccine is being administered by syringe, use a ⅝” needle.

**Intradermal (ID) injection**
- Administer the vaccine directly into the skin using a sterile, single-use needle and syringe combination.
- For infants and toddlers, administer the dose in the anterolateral thigh muscle.
- For children and adults, administer the dose in the deltoid muscle of the arm.
- Use a ⅝” needle and inject at a 90° angle to the skin with a quick thrust.

**Intranasal (NAS) administration**
- Administer the vaccine directly into the nose using a sterile, single-use applicator.
- For infants and toddlers, administer the dose in one nostril.
- For children and adults, administer the dose in both nostrils.
- Use a ⅝” needle and inject at a 45° angle to the skin with a quick thrust.

### For 8½ x 11" copies of these pieces above, visit IAC’s website: www.immunize.org/handouts/administering-vaccines.asp

1. Administering Vaccines: Dose, Route, Site, and Needle Size
2. Administering Vaccines to Adults: Dose, Route, Site, and Needle Size
   - www.immunize.org/catg.d/p3084.pdf
3. How to Administer Intramuscular, Intradermal, and Intranasal Influenza Vaccines
4. How to Administer Intradermal, Intranasal, and Oral Vaccinations
5. How to Administer Intramuscular and Subcutaneous Vaccine Injections to Adults
6. How to Administer Intramuscular and Subcutaneous Vaccine Injections to Children

### Technical content reviewed by the Centers for Disease Control and Prevention
Make Sure Your Patients Are Protected from Meningococcal Disease Caused by Serogroup B

This 1-page guide describes MenB vaccine recommendations by age group, medical condition, or other risk factors. www.immunize.org/catg.d/p2035.pdf

STANDING ORDERS FOR Administering Meningococcal B Vaccine to Adolescents and Adults

Purpose
To reduce morbidity and mortality from serogroup B meningococcal disease by vaccinating all adolescents and adults 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 and vaccinate adolescents and adults who meet any of the criteria below.

Procedure
1. Assess adolescents and adults for need of vaccination against meningococcal serogroup B disease according to the following criteria:
   • Age 16 through 23 years who desire to be vaccinated. The ACIP-preferred age is 16 through 18 years.
   • Age 10 years and older, including all adults, with:
     • Diagnosis of persistent complement component deficiencies (e.g., inherited chronic deficiencies in C3, C5–C9, properdin, factor D and factor H) or taking eculizumab (Soliris)
     • Diagnosis of anatomic or functional asplenia (including sickle cell disease)
     • Risk of potential exposure due to an outbreak attributable to serogroup B
     • Persistent complement component deficiencies (e.g., inherited or chronic deficiencies in C3, C5–C9, properdin, factor D, and factor H).
   • Diagnosis of anatomic or functional asplenia, including sickle cell disease
   • Risk of potential exposure due to an outbreak attributable to serogroup B
   • Microbiologists routinely exposed to Neisseria meningitidis

2. Screen for contraindications and precautions
   Do not give meningococcal B vaccine to an adolescent or adult who has experienced a serious anaphylactic reaction to a prior dose of meningococcal B vaccine or to any of its components. For information on 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/appendicentable-2.pdf.
   Precaution
   Moderate or severe acute illness with or without fever

3. Provide Vaccine Information Statements
   Provide all patients (or, in the case of minors, their parent, or legal representative) 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.cdc.gov/vaccine/vis or go to www.cdc.gov/vaccines/hcp/downloads/vise EUROPE.pdf.

4. Prepare to Administer Vaccine
   Choose the needle gauge, needle length, and injection site according to the following chart:

<table>
<thead>
<tr>
<th>Needle Gauge</th>
<th>Needle Length</th>
<th>Injection Site</th>
</tr>
</thead>
<tbody>
<tr>
<td>22–25</td>
<td>1–1 ½”</td>
<td>Deltoi muscle of arm</td>
</tr>
<tr>
<td>25–27</td>
<td>1–1 ½”</td>
<td>Deltoi muscle of arm</td>
</tr>
<tr>
<td>27–30</td>
<td>1–1 ½”</td>
<td>Deltoi muscle of arm</td>
</tr>
</tbody>
</table>

   *AC needles may be used in patients weighing less than 150 lbs (67 kg) for MenB immunizations. In the absence of a visible medical scar, only if the skin is stretched tight, the subcutaneous tissue is not bunched, and the injection is made at a 90° angle to the skin.

   Use this 2-page MenB standing orders template for adolescents and adults to streamline vaccination in your practice setting. www.immunize.org/catg.d/p3095.pdf

Meningococcal Vaccine Recommendations by Age and Risk Factor for Serogroup B Protection

Meningococcal serogroup type B vaccines:
• Bexsero (MenB-4c, GlaxoSmithKline)
• Trumenba (MenB-FHbp, Pfizer)

For people ages 10 years or older with:
• persistent complement component deficiencies
• anatomic or functional asplenia, including sickle cell disease
For people ages 10 years or older who:
• are present during outbreaks caused by serogroup B or
• have prolonged increased risk for exposure (e.g., microbiologists routinely working with Neisseria meningitidis)

Note: The two brands of meningococcal B vaccine are not interchangeable. The series must be started and completed with the same brand of vaccine.

PODNOTES
1. Persistent complement component deficiencies (e.g., inherited chronic deficiencies in C3, C5–C9, properdin, factor D and factor H) or taking eculizumab (Soliris)
2. Risk of potential exposure due to an outbreak attributable to serogroup B
3. Diagnosis of persistent complement component deficiencies (e.g., inherited chronic deficiencies in C3, C5–C9, properdin, factor D, and factor H)

Meningococcal Vaccine Recommendations

For young people ages 16 through 23 years who wish to be vaccinated. The preferred age is 16 through 18 years.

Cave either 2 doses of Bexsero 4 weeks apart, or 3 doses of Trumenba on a 0-, 2-, and 6-month schedule.

Cave either 2 doses of Bexsero 4 weeks apart, or 3 doses of Trumenba on a 0-, 2-, and 6-month schedule.

www.immunize.org
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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*

Teresa A. Anderson is a member of the Immunization Action Coalition’s (IAC) Perinatal Hepatitis B Prevention Committee. Dr. Anderson is a dental epidemiologist, also known as a pedodontist, and practices in St. Paul, Minnesota. She is a member of the American Academy of Pediatric Dentistry, the American Public Health Association, and the Minnesota Public Health Association.

Deborah L. Wexler, MD, is a pediatrician and associate professor of pediatrics at the Medical College of Wisconsin, Milwaukee. She is a member of the American Academy of Pediatrics, the Society for Healthcare Epidemiology of America, and the World Association for Perinatal Medicine, and is the author of the book, "Hepatitis B: What Hospitals Need to Do to Protect Newborns." Dr. Wexler is the chair of the Hepatitis B Planning Committee of the Immunization Action Coalition.

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.

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.
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