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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).

HPV vaccine

What is the new HPV vaccine schedule recommendation?

In October 2016, the Advisory Committee on Immunization Practices (ACIP) voted to recommend a routine 2-dose HPV vaccine schedule for adolescents who start the vaccination series before the 15th birthday. The two doses should be separated by 6–12 months (the minimum interval between doses is 5 months). A 3-dose schedule continues to be recommended for people who start the series on or after the 15th birthday and for people

ACIP Votes to Update Recommendations for HPV, Tdap, MenB, and HepB Vaccines

On October 19–20, CDC's Advisory Committee on Immunization Practices (ACIP) met in Atlanta and voted to update several of its existing vaccine recommendations. Some of the changes are described below.

Human Papillomavirus (HPV) Vaccine

ACIP voted to change the HPV vaccination schedule from a 3-dose to a 2-dose series for adolescents who begin the HPV series at 9 through 14 years of age, regardless of age at series completion. Those who start the series later, at 15 through 26 years of age, or who are immunocompromised, will continue to need 3 doses.

The 9vHPV vaccine (HPV9, Gardasil 9, Merck) will soon be the only HPV vaccine available in the U.S. As of October 2016, Merck is distributing only HPV9, and supplies of 2vHPV (Cervarix, GSK) in the U.S. are now depleted. HPV9 may be used to complete a series begun with 4vHPV (HPV4, Gardasil, Merck) or 2vHPV.

Meningococcal Serogroup B Vaccine

Bexero (MenB-4C, GSK) has previously been recommended by ACIP for use as a 2-dose series for high-risk individuals and in outbreak settings, and may also be administered to healthy individuals age 16 through 23 years. In April, FDA approved a label change giving MenB-FHbp (Trumenba, Pfizer) as either a 2-dose (0, 6 months) or 3-dose (0, 1–2, 6 months) series. ACIP voted to recommend that healthcare providers who use Trumenba continue to use the 3-dose series when vaccinat-

ing people at increased risk of meningococcal serogroup B disease (e.g., people with persistent complement component deficiencies or anatomical or functional asplenia) or during serogroup B outbreaks. The 2-dose series of Trumenba can be used for routine vaccination for healthy people age 16 through 23 years.

Tdap Vaccine

Previous ACIP recommendations called for prenatal care providers to vaccinate all pregnant women with Tdap vaccine during each pregnancy with optimal timing for this dose designated between 27 and 36 weeks gestation. In October, ACIP voted to recommend administering Tdap vaccination early in the 27- through 36-week "window" to maximize passive antibody transfer to the infant. The new recommendations also clarify that children age 7 through 10 years who receive Tdap as part of a catch-up series may be given an additional Tdap for the routinely recommended adolescent dose at 11–12 years of age.

Hepatitis B Vaccine

ACIP voted to approve a new guidance document that consolidates all previously published recommendations into a comprehensive statement. The committee reemphasized the importance of the HepB birth dose as a safety net against chronic HBV infection, now recommending that all newborns of HBsAg-negative (hepatitis B surface antigen-negative) mothers should be vaccinated with HepB vaccine within 24 hours of birth. ♦

with certain immunocompromising conditions (such as cancer, HIV infection, or taking immunosuppressive drugs). A revised ACIP statement is being prepared and is expected to be published in December 2016.

Has ACIP expressed a preference for the 2-dose over the 3-dose schedule for adolescents 9 through 14 years of age?

Yes. ACIP recommends the 2-dose schedule for people starting the HPV vaccination series before the 15th birthday, as long as they are immunocompetent.

Does the 2-dose HPV vaccine schedule need to be completed with the same vaccine, or can it include different vaccines (such as bivalent or quadrivalent vaccine)?

The 2-dose schedule can be completed with any combination of HPV vaccine brands as long as

dose #1 was given before age 15 years. Dose #2 should be administered 6–12 months after dose #1.

If dose #1 of HPV vaccine was given before the 15th birthday and it has been more than a year since that dose was given, would the series be complete with just one additional dose?

Yes. Adolescents and adults who started the HPV vaccine series prior to the 15th birthday and who are not immunocompromised are considered to be

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Immunization questions?

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

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adequately vaccinated with just one additional dose of HPV vaccine.

We have adolescents in our practice who have received the first 2 doses of the HPV series 1 or 2 months apart according to the 3-dose schedule. Can we consider their HPV vaccine series to be complete or do we need to give these patients a third dose?

People who have received 2 doses of HPV vaccine separated by less than 5 months should receive a third dose 6–12 months after dose #1 and at least 12 weeks after dose #2.

Will the 2-dose recommendation be retroactive for children and teens vaccinated prior to 2016?

Yes. Any person who ever received 2 doses of any combination of HPV vaccines can be considered fully vaccinated if dose #1 was given before the 15th birthday and the 2 doses were separated by at least 5 months.

MenACWY vaccine

Please review the new recommendations for use of MenACWY vaccine in people with human immunodeficiency virus (HIV) infection.

A growing body of evidence supports an increased risk for meningococcal disease in HIV-infected people. The Advisory Committee on Immunization Practices (ACIP) recommends that all HIV-infected people 2 months of age and older should routinely receive an age-appropriate MenACWY vaccine (Menactra, Sanofi Pasteur; Menveo, GSK). Children younger than age 2 years should be vaccinated using a multidose schedule (see the IAC educational piece “Meningococcal Vaccine Recommendations by Age and Risk Factor for Serogroups A, C, W, or Y Protection” available at www.immunize.org/catg.d/p2018.pdf for details). People age 2 years and older with HIV infection who have not been previously vaccinated should receive a 2-dose primary series of MenACWY vaccine (doses separated by 8–12 weeks). People with HIV infection who have previously received one dose of MenACWY should receive a second dose at the earliest opportunity (at least 8 weeks after the previous dose) and then receive booster doses at the appropriate intervals. If the most recent dose was received before age 7 years, a booster dose should be administered 3 years later. If the most recent dose was received at age 7 years or

older, a booster should be administered 5 years later and every 5 years thereafter throughout life.

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

MenACWY was the correct vaccine in this situation. The 2013 ACIP recommendations on MenACWY vaccination recommend the use of meningococcal conjugate vaccine in adults age 56 years and older who were vaccinated previously with MenACWY and now need revaccination, or are recommended to receive multiple doses. A person of this age with HIV infection should receive 2 doses of MenACWY separated by 8–12 weeks. Both MenACWY vaccines are licensed for use in people through age 55 years, which means that the use of these vaccines in people age 56 and older is off-label but recommended by ACIP.

I have a 24-month-old patient with HIV infection and I want to use Menactra (Sanofi Pasteur) because this is the only vaccine we have available in our clinic. However, this child received DTaP vaccine yesterday at another clinic. Can I administer Menactra today?

ACIP recommends that you wait 4 weeks from the dose of DTaP to administer the dose of Menactra. This is because data suggest a reduced response to the Menactra if given within a month after DTaP. If Menactra is to be administered to a child at increased risk for meningococcal disease, including children who have HIV infection, Menactra should be given either before or at the same visit as DTaP. Menveo brand MenACWY vaccine (GSK) can be given at any time before or after DTaP.

I have a 24-month-old patient with a complement component deficiency who received a dose of DTaP at 23 months of age and then received a dose of Menactra two weeks later. Do I need to repeat the dose of Menactra?

No. Even though ACIP recommends that Menactra should be given no less than 4 weeks after a dose of DTaP, there is no evidence to support repeating the dose of Menactra. A child with a complement component deficiency should still receive a second dose of MenACWY vaccine 8 weeks after the first dose.

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



Andrew T. Kroger, MD, MPH



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Does the recommendation about separation of DTaP and Menactra also apply to children with functional or anatomic asplenia?

Yes. The recommendation about spacing of DTaP and Menactra (described above) applies to children of any age with a high-risk condition for meningococcal disease, including travelers.

The ACIP MenACWY vaccine recommendations state that a routine second dose needs to be given at 16 years of age. Children with asplenia or other high-risk conditions should receive a booster dose every 5 years. If a child with a high-risk condition receives a dose of MenACWY at age 9 years (and a second primary dose 8 weeks later), should they receive a booster dose at age 14 years (5 years after the primary series), or should they receive a dose at age 16 years as recommended in the routine schedule?

The MenACWY booster dose should be given at 14 years (5 years after the primary series) and every 5 years thereafter. The every 5-year booster dose schedule for persons with high-risk conditions takes precedence over the routine second dose schedule.

MenB vaccine

Which individuals in risk groups are recommended to be vaccinated against meningococcal serogroup B disease?

CDC's Advisory Committee on Immunization Practices (ACIP) recommends routine MenB vaccination of the following individuals in certain risk groups:

- People age 10 years and older who have functional or anatomic asplenia
- People age 10 years and older who have persistent complement component deficiency, including people taking eculizumab (Soliris)
- People age 10 years and older who are at risk during an outbreak caused by a vaccine serogroup, such as on a college campus
- Microbiologists who work with meningococcus bacteria in a laboratory

Both MenB vaccines are licensed for use in people

through age 25 years, which means that the use of these vaccines in people age 26 and older is off-label but recommended by ACIP.

Which individuals are recommended to be vaccinated against meningococcal serogroup B disease who are not in risk groups?

ACIP recommends that a MenB vaccine series (Bexero, MenB-4C, GSK; Trumenba, MenB-FHbp, Pfizer) may be administered to people 16 through 23 years of age with a preferred age of vaccination of 16 through 18 years. This Category B recommendation gives clinicians an opportunity to discuss the value of MenB vaccination with their patients and to make a decision together about the individual's need or desire for the vaccine based on risks, benefits, and wish for protection from the disease. Because it is a Category B recommendation, MenB vaccination is covered by the Vaccines for Children Program for anyone who is eligible. Under the Affordable Care Act, private insurance must also cover the costs of both Category A and B recommended vaccines.

What is the new schedule for Trumenba MenB vaccine?

The Food and Drug Administration approved a 2-dose schedule for Trumenba in April 2016. At its October 2016 meeting, ACIP voted to recommend a 2-dose schedule of Trumenba for people not at increased risk of MenB (for example, healthy adolescents). The two doses should be administered at least 6 months apart. ACIP recommends that people at increased risk of MenB disease (complement component deficiency, functional or anatomic asplenia, at risk during an outbreak of meningococcal B disease, and certain microbiologists) receive a 3-dose Trumenba series with dose #2 and dose #3 administered 2 and 6 months after dose #1.

The schedule for Bexsero has not changed. Bexsero is a 2-dose series with dose #2 given at least 1 month after dose #1.

Should college students be vaccinated against meningococcal B disease?

Although several small meningococcal serogroup B disease outbreaks have occurred on college campuses since 2013, college students in general are not at higher risk of meningococcal B disease than people of the same age who are not college students. Consequently,

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ACIP does not routinely recommend MenB vaccination for college students. However, college students may choose to receive MenB vaccine to reduce their risk of serogroup B meningococcal disease.

ACIP recommendations for MenB vaccine say the vaccine will provide “short term protection.” What does “short term protection” mean?

MenB vaccines were approved based on the serologic response to the vaccine. No data are available on vaccine effectiveness against clinical disease or duration of protection against clinical disease. Short term protection refers to the known duration of the antibody response. Available data indicate that a protective antibody level should persist in most recipients for 24–48 months after vaccination. This issue will continue to be monitored. For more information, see the ACIP recommendations at www.cdc.gov/mmwr/pdf/wk/mm6441.pdf, pages 1171–5.

Can the MenB series be completed with a different MenB brand from the one the series was begun with?

No. You may not switch MenB vaccines in order to complete a series. The series must be started and completed with the same MenB brand.

Can meningococcal conjugate (MenACWY) and MenB vaccines be given at the same visit?

Yes. Meningococcal conjugate and MenB vaccines can be given at the same visit or at any time before or after the other.

Which groups of patients should receive a booster dose of MenB vaccine after completion of the series?

ACIP does not currently recommend booster doses of MenB vaccine for any group.

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.

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Influenza vaccine

Please provide details about the use of FluLaval influenza vaccine (GlaxoSmithKline) in children younger than 3 years.

On November 18, 2016, the Food and Drug Administration approved an extension of the age range of quadrivalent FluLaval (inactivated influenza vaccine, GSK) to include children 6 through 35 months of age. FluLaval was previously approved for people 3 years of age and older. The approval of the extended age range for FluLaval was based on a study showing an equivalent (“non-inferior”) response compared to children who received Fluzone (Sanofi Pasteur) pediatric formulation. The vaccine will be supplied for this indication in manufacturer-filled syringes and multi-dose vials. The dosage approved for children 6 through 35 months of age is 0.5 mL – the same dosage as for people 3 years of age and older.

ACIP has not yet issued a recommendation regarding the use of FluLaval in children 6 through 35 months of age. However, clinicians are free to use this and other vaccines in a manner consistent with their labeling.

Can a child 6 through 35 months of age who needs 2 doses of influenza vaccine this season receive one each of Fluzone Pediatric and FluLaval vaccine?

Yes. Both Fluzone Pediatric (0.25 mL dose) and

FluLaval (0.5 mL dose) are approved by the Food and Drug Administration for use in children 6 through 35 months of age.

A 2-year-old was inadvertently given a 0.25 mL dose of FluLaval rather than the recommended 0.5 mL dose. What should we do?

If the error is discovered while the child is still in the office you can administer the other “half” of the FluLaval dose. If the error is discovered later, then the child should be recalled to the office and given a full age-appropriate repeat dose, either a 0.5 mL dose of FluLaval or a 0.25 mL dose of Fluzone.

Can a clinic vaccinate children younger than age 3 years with influenza vaccine taken from a multidose vial of Fluzone or FluLaval? The multi-dose vials contain thimerosal as a preservative.

Yes. Multidose vials of Fluzone and FluLaval contain a small amount of thimerosal to prevent bacterial and fungal growth in the vial. Thimerosal-containing vaccines are safe to use in children. No scientific evidence indicates that thimerosal in vaccines causes adverse events unless the patient has a severe allergy to thimerosal. However, a few states have enacted legislation that restricts the use of thimerosal-containing vaccines in children. To find out if your state has such restrictions, check with your state immunization program (see www.immunize.org/coordinators for phone numbers). ♦

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.

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