

National Influenza Vaccination Week (NIVW) will be observed December 4-10, 2016

## Two HPV Vaccine Doses Advised for Children Under Age 15 Diana Swift Medscape Medical News October 20, 2016

Children and adolescents aged 15 years and younger need just two, not three, doses of the human papilloma virus (HPV) vaccine, according to an updated recommendation from the Advisory Committee on Immunization Practices (ACIP). ACIP, an expert panel that advises the Centers for Disease Control and Prevention (CDC), voted Wednesday on the reduction in doses, which is recommended because of the vaccine's enhanced immunogenicity in preteens and adolescents aged 9 to 14 years.

"The antibody response is stronger in the younger children, which is something we've known for a long time," said Melinda Wharton, MD, MPH, director of the CDC's Immunization Services Division in Atlanta, in an interview with *Medscape Medical News*. "In comparing antibody levels, the efficacy trials showed the response in younger children following two doses is as good as or better than after three doses in older teens and young adults."

In addition to dropping the third dose for the under-15 age group, the recommendation expands the time interval from the first to the second dose from 1-2 months to 6-12 months. "This makes it convenient to give the second dose at the annual physician visit," Dr Wharton said. "Getting two doses instead of three should keep things much simpler for families."

CDC Director Tom Frieden, MD, MPH, approved the committee's recommendations, which will be published as guidelines in *Morbidity and Mortality Weekly Report (MMWR)*. The schedule for older adolescents and young adults aged 15 to 26 remains the same, at three inoculations within 6 months.

Earlier this month, the US Food and Drug Administration approved adding a two-dose schedule for the 9-valent HPV vaccine (*Gardasil* 9, Merck) for children and adolescents aged 9 to 14 years. To increase uptake in 11- and 12-year-olds, which are the recommended ages for starting vaccination, Dr Wharton advised healthcare providers to present the HPV vaccine to parents as just one of the vaccines that are routinely recommended for this age group, such as those for meningitis and whooping cough.

"There is evidence that providers who treat it as just a normal vaccine have better acceptance rates with parents than providers, who, for whatever reason, feel they need to get into a big conversation," she said. Some parents view the vaccine as potentially promoting precocious sexual activity. Another point providers should make is that the vaccine prevents HPV-related cancers. "Cancer prevention is something that resonates strongly with parents," Dr Wharton said.

In 2015, about 63% of US girls and about 50% of boys had received at least one HPV shot, according to data from the CDC's <u>National</u> <u>Immunization Survey–Teen</u>.

Are you or someone you know an immunization expert? Do you enjoy sharing your knowledge with others?

If you answered yes, you could become a trainer for EPIC. We provide training on the program curriculum, use of the program equipment (laptop and projector), a stipend for your time, and some great tips for presenting to adult learners.

Please contact Shanrita McClain or Janna McWilson for more information.

#### AAP News October 20, 2016 ACIP updates recommendations on HPV, HepB, MenB vaccines

Melissa Jenco, News Content Editor

Adolescents under age 15 years need only two doses of human papillomavirus (HPV) vaccine instead of three under a new recommendation from a Centers for Disease Control and Prevention (CDC) committee.

The CDC's Advisory Committee on Immunization Practices (ACIP) said a two-dose schedule could improve lagging completion rates, while still providing protection against the infection.

The group also made changes to hepatitis B and meningococcal B (MenB) vaccine recommendations during Wednesday's meeting.

ACIP's recommendations will be reviewed by the CDC director. Those that are approved will be published as official recommendations in the *Morbidity and Mortality Weekly Report (MMWR)*. The Academy will review the CDC's changes and make official policy recommendations of its own. Yvonne A. Maldonado, M.D., FAAP, vice chair of the AAP Committee on Infectious Diseases who represented the Academy at the meeting, recommends pediatricians follow existing AAP guidance for now but prepare for the potential changes.

#### HPV

To protect against HPV-related cancers, the Academy and CDC recommend HPV vaccine as part of routine immunization for males and females at age 11 or 12 years, although it can be started as early as 9 years. The vaccine, now available as the 9-valent Gardasil 9, traditionally has been given in a three-dose series, but the Food and Drug Administration (FDA) recently approved a two-dose series for children ages 9-14.

After reviewing the data, ACIP members followed suit. They recommended a two-dose schedule for children younger than 15 years of age who are starting vaccination, with the second dose administered six to 12 months after the first dose. Those starting vaccination at age 15-26 should receive three doses. ACIP continues to recommend routine vaccination at age 11-12, though the vaccine can be given as early as 9 years of age.

Dr. Maldonado applauded the change.

"We want to make sure children are up to date on their vaccines and ... the two-dose HPV schedule is certainly much easier and should hopefully lead to more compliance," she said.

Only about 42% of teen girls and 28% of teen boys receive all three doses, according to the CDC.

Adolescents under 15 who have received two doses that were less than six months apart will need a third dose.

The 9-valent vaccine may be used to complete a series started with a quadrivalent or bivalent vaccine, and a schedule that has been interrupted does not need to be restarted. ACIP currently does not have a recommendation as to whether those who were fully vaccinated with one of those two types should receive additional vaccination with the 9-valent vaccine, and the Academy will work closely with the CDC to determine if such guidance can be forthcoming.

CDC Director Tom Frieden, M.D., M.P.H., quickly approved ACIP's HPV recommendations.

"Safe, effective, and long-lasting protection against HPV cancers with two visits instead of three means more Americans will be protected from cancer," Dr. Frieden said in a news release. "This recommendation will make it simpler for parents to get their children protected in time."

#### Hepatitis **B**

ACIP also took steps Wednesday to stress the importance of vaccinating infants against hepatitis B as soon as possible after birth.

Hepatitis B is a liver infection transmitted through blood or body fluids and can be passed from a mother to her infant. The CDC estimates 90% of infected infants develop chronic infection.

ACIP recommended Wednesday that infants be immunized within 24 hours of birth and removed policy language allowing a delay in some circumstances.

Continued on page 3.....

## Continued from page 2.....

"The earlier the better," Dr. Maldonado said. "Once infants are discharged home after birth, there is a risk they might miss their first well-child appointment and their first hepatitis B vaccine dose. If the infant's mother is infected with hepatitis B, there would be a very high risk of becoming infected themselves."

Pediatricians should continue to be vigilant about vaccinating infants who did not receive a dose at birth.

#### MenB

The Academy and CDC currently recommend routine MenB vaccination for those 10 and older who are at increased risk of MenB, including those with persistent complement component deficiencies, anatomic or functional asplenia, and people living in an outbreak area. They do not express a preference for the two licensed vaccines — MenB-4C (Bexsero) and MenB-FHbp (Trumenba) — but the same product must be used for the entire series. In April, the FDA approved a label change giving MenB-FHbp a flexible three-dose schedule of zero, one to two months and six months and a two-dose schedule of zero and six months. ACIP members on Wednesday recommended when using MenB-FHbp to vaccinate people at increased risk of MenB, the three-dose schedule should be used.

That schedule will "provide early protection and maximize immune response," said Jessica MacNeil, M.P.H., a CDC epidemiologist.

For healthy people ages 16-23 years who are not at increased risk of MenB disease, ACIP has a permissive recommendation that allows use of one of the MenB vaccines should the patient desire to be immunized. If an adolescent so chooses and MenB-FHbp is selected, ACIP recommended a two-dose schedule.

If a patient receives a second dose of MenB-FHbp less than six months after the first dose, a third dose should be given at least six months after the first.

#### Pertussis

Experts also reviewed new research regarding the safety of tetanus diphtheria acellular pertussis (Tdap) vaccine during pregnancy.

CDC epidemiologist Jennifer Liang, D.V.M., M.P.V.M., said data "continue to be reassuring."

"Studies of over 50,000 women receiving Tdap during pregnancy ... show no increased risk of adverse maternal or infant health outcomes," she said.

In 2012, ACIP began recommending Tdap during every pregnancy. While it can be given at any time, the CDC considers 27-36 weeks' gestation to be optimal. The CDC now is working on new language to emphasize vaccination in the early part of that window when it is believed to be most beneficial.

#### Next steps

*AAP News* will continue to update members when recommendations have been approved by the CDC director and published in the *MMWR*, as well as when the Academy makes official policy recommendations on these vaccinations.

### **Current Issues in Vaccines – Winter 2016**

**Presenter:** Paul Offit, MD

Director, Vaccine Education Center

Attending Physician, Division of Infectious Diseases, Children's Hospital of Philadelphia

Professor of Pediatrics and Maurice Hilleman Professor of Vaccinology, University of Pennsylvania School of Medicine

**Date and Time:** Wednesday, Nov. 16, 2016, noon – 1 p.m. ET

Location: Webinar

**Topics:** HPV vaccine: The new two-dose schedule, Meningococcal B vaccines: Change in Trumenba® recommendation, Tdap: Change in emphasis in pregnancy recommendation, Herpes zoster vaccines: A new vaccine on the way, Pneumococcal vaccine (PCV13): Evidence for herd immunity

Register for the Webinar here: <u>http://www.chop.edu/centers-programs/vaccine-update/vaccine-webinar-series</u>

# **Common Vaccine Safe for Mother, Fetus**

Finding should reassure women who get Tdap shot to help protect their infant against whooping cough

By Dennis Thompson HealthDay Reporter

**TUESDAY, Nov. 1, 2016 (HealthDay News)** -- The Tdap (tetanus, diphtheria and pertussis) vaccine is safe for pregnant women who hope to pass their immunity on to their newborns, a new study shows.

The vaccine does not appear to cause birth defects or any other major health problems for a developing fetus, according to a review of more than 324,000 live births between 2007 and 2013.

"We basically showed there is no association between receiving the Tdap vaccine during pregnancy and these congenital [birth] defects, including microcephaly," said lead researcher Dr. Malini DeSilva. She is a clinical investigator for HealthPartners Institute in Minneapolis.

The study is part of ongoing efforts to monitor the safety of vaccines, DeSilva said. Her center is part of the Vaccine Safety Datalink, a collaborative project led by the U.S. Centers for Disease Control and Prevention that includes health care organizations across the nation.

The Tdap vaccine has been recommended for unvaccinated pregnant women since 2010 in California, and since 2011 across the United States, researchers said in background information.

Babies can't receive the vaccine that protects against these diseases until they are 2 months old, DeSilva said. Until they do, they have a high risk of contracting whooping cough (pertussis).

"In between the time they're born and their 2 months' visit, they don't really have any protective antibodies other than what has passed through the placenta," DeSilva said. "There have been some studies that show there is an increased chance of passing these antibodies when the mother gets this vaccine."

For their review, researchers included data from live births at seven Vaccine Safety Datalink sites, including northern California, southern California, Colorado, Minnesota, Oregon, Washington and Wisconsin.

The investigators analyzed births from these areas when Tdap vaccination became recommended for pregnant women, and compared the results to what occurred prior to the recommendation.

The researchers found that maternal Tdap inoculation wasn't significantly associated with increased risk for any major birth defects in vaccinations occurring at less than 14 weeks' gestation, between 27 and 36 weeks' gestation, or during any week of pregnancy.

Dr. Amesh Adalja is a senior associate with the University of Pittsburgh's UPMC Center for Health Security. He said, "This study illustrates the safety of maternal Tdap vaccination and the lack of an association with any birth defects." Adalja was not involved with the new report.

"Vaccination of pregnant women with this vaccine is an important aspect of protecting neonates from pertussis, a potentially fatal condition," Adalja added. "This study should reassure physicians and patients and hopefully increase vaccination rates in pregnancy."

The study was published Nov. 1 in the Journal of the American Medical Association.

## **Registry, multisite care, bundled vaccines improve HPV vaccination rate among teens Publish date:** October 5, 2016

Author(s):

Jessica Craig

### FROM PEDIATRICS

Bundling vaccines, coordinating multisite medical access, and overseeing vaccination status through an internally developed immunization registry has consistently led to Denver Health's reporting higher-than-average HPV vaccination rates among adolescents, according to investigators.

Despite the Advisory Committee on Immunization Practice's 2006 recommendation for routine adolescent human papillomavirus (HPV) vaccination and the Healthy People goal of 80% vaccine coverage in adolescents by 2020, HPV vaccination rates have lagged behind those of other routinely administered adolescent vaccinations, such as meningococcal conjugate vaccine (MCV4) and Tdap, reported Anna-Lisa Farmar, MD, of Denver Health, and her associates (Pediatrics. 2016 Oct 5. doi: 10.1542/peds.2015-2653).

In 2013, the national rate for HPV coverage of at least one dose was 57% for girls and 35% for boys. At Denver Health, the HPV coverage rate of at least one dose was 90% for girls and 89% for boys. In fact, Denver Health, an integrated system that serves 40% of the city's children and more than half of Denver's uninsured Medicaid population, has consistently reported HPV vaccination rates higher than the national average: In 2014, the national average of adolescents receiving three or more doses of the HPV vaccine was 40% for girls and 22% for boys. At Denver Health, 67% of girls and 60% of boys received three or more HPV vaccine doses.

For their study, Dr. Farmar and her associates outlined the vaccination procedures and tactics used at Denver Health's 8 health centers and 16 school-based health centers and examined vaccine registry data for 11,463 patients to understand why the health system has been successful and to learn how it can further improve.

The multipronged vaccination procedures and tactics employed at Denver Health are designed to overcome specific HPV vaccination barriers such as concern about the vaccine's safety, parental belief that their children are not sexually active, lack of insurance coverage, lack of knowledge about HPV, and providers missing opportunities to administer the vaccine, as well as barriers affecting low-income patients: transportation issues, low access to care, and inability to take time off work.

"For all patients presenting for acute or preventative visits, there is a standard process for the medical assistants to follow that leads to vaccines being offered to the patient," the authors wrote. This process begins with and is organized by VaxTrax, a Denver Health internally developed immunization registry that informs medical providers of a patient's vaccination status.

Denver Health medical providers are encouraged to bundle common vaccines together, to not present vaccines as optional or required, and to review their individual vaccine coverage rates, which are distributed monthly. In addition, school-based health centers offer vaccination drives and adolescents can receive medical care at any of the Denver Health sites, thereby increasing the opportunities for providers and patients to interact. "Avoiding missed opportunities for vaccination and providing a strong recommendation for the HPV vaccine were key procedures that likely contributed to high coverage rates," Dr. Farmar and her associates wrote.

The researchers found that of the 11,463 patients included in analysis, the majority completing the HPV vaccination series were female, Hispanic, and low-income. "These results are consistent with previous research examining national and state trends," they noted.

"To our knowledge, language has not been examined as a potential factor in HPV coverage rates. The practice of continuing to approach families who have refused HPV vaccination in the past addresses the patient groups with lower vaccine completion rates, such as English-speaking and higher-income families. These families may require recurring discussion over time with a primary provider to overcome barriers to vaccination," the researchers wrote.

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### HPV 2 dose Case Examples:

15 year old starting the HPV series. How many doses with they need? They will need 3 doses; 0, 1-2, 6 months schedule

13 year old with a history of 2 doses at 12 years old. They received the 2nd dose of 9 valent 6 months after the first dose.

They do not need any additional doses. They were <15 when the series was ini tiated and the dose interval was longer than 5 months.

13 year old with a history of 2 doses of HPV; 4v @ age 11 and 9v given 2 months later. How many doses will this adolescent need?

They will need 1 more dose because the interval between the first and second dose was < 5 months.