

From Immunization Newsletter – November 2013

2014 Immunization Schedules: Every year, recommendations for routine use of vaccines in children, adolescents, and adults are developed by the Advisory Committee on Immunization Practices (ACIP) and, when adopted by the Director of CDC, become official CDC/HHS policy. In early 2014, *MMWR* will publish a summary of schedule changes but will not publish the figures, footnotes, and tables. 2014 figures, footnotes and tables will only be published on the CDC website.

The 2014 <u>child and adolescent schedule</u> is scheduled to be released on January 31, 2014, and the <u>adult schedule</u> is scheduled to be released on February 3, 2014. Until then, the 2013 schedules will remain on the website. CDC encourages organizations to content syndicate rather than copy a PDF version of the schedule onto their websites to share with visitors. Content syndication allows other organization's websites to mirror CDC web content, with immediate and automatic updates whenever changes are made on the CDC site. This helps ensure all schedules are current across the Internet. Recent searches of the Internet reveal hundreds of old copies of the schedules; please use this best practice. Prepare now for the release of the 2014 schedules by following the steps to <u>display the schedules on your site</u>.

New York City to Require Child Flu Shots

New York Times (12/12/13) P. A32

The New York City Board of Health voted on December 11 in favor of mandatory flu vaccination for children under age six who attend preschool or day care. Dr. Jay Varma, deputy commissioner for disease control, said the vaccine could keep as many as about 20,000 children in New York City from contracting the flu. The Board of Health's initiative takes effect in 30 days and will affect about 150,000 children, but actual mandated vaccinations were likely to be performed in fall 2014. Exemptions will be granted for medical and religious reasons.

Measles Cases in U.S. Rise; Most Unvaccinated, CDC Says USA Today (12/05/13) Szabo, Liz

The United States is seeing a spike in measles cases, with the Centers for Disease Control and Prevention (CDC) reporting 175 confirmed cases and 20 hospitalizations so far this year, about three times the usual number of cases. There have been nine outbreaks this year, the largest occurring in New York, North Carolina, and Texas. More than 98 percent of patients were unvaccinated, said CDC Director Thomas Frieden. Measles has been officially eliminated in the United States and no longer circulates among the general population, but the nation still has about 60 "imported" measles cases annually. High vaccination rates mean that these cases mostly have not spread beyond a few people. Parents who refuse vaccines, however, tend to cluster in the same communities, increasing the risk of transmission. Doctors recommend that children receive their first measles vaccine at age one year, with a second at four to six years. Babies traveling abroad can receive a first measles vaccine at six months. There were nearly 21,000 cases of measles in Europe in the first half of this year, according to the World Health Organization.

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CDC publishes guidance for HBV protection and postexposure management of healthcare personnel

On December 20, CDC published <u>CDC Guidance for Evaluating Health-Care Personnel for Hepatitis B Virus Protection</u> and for Administering Postexposure Management in *MMWR Recommendations and Reports*. The "Summary" section is reprinted below.

This report contains CDC guidance that augments the 2011 recommendations of the Advisory Committee on Immunization Practices (ACIP) for evaluating hepatitis B protection among health-care personnel (HCP) and administering postexposure prophylaxis. Explicit guidance is provided for persons working, training, or volunteering in health-care settings who have documented hepatitis B (HepB) vaccination years before hire or matriculation (e.g., when HepB vaccination was received as part of routine infant [recommended since 1991] or catch-up adolescent [recommended since 1995] vaccination).

In the United States, 2,890 cases of acute hepatitis B were reported to CDC in 2011, and an estimated 18,800 new cases of hepatitis B occurred after accounting for underreporting of cases and asymptomatic infection. Although the rate of acute hepatitis B virus (HBV) infections have declined approximately 89% during 1990–2011, from 8.5 to 0.9 cases per 100,000 population in the United States, the risk for occupationally acquired HBV among HCP persists, largely from exposures to patients with chronic HBV infection.

ACIP recommends HepB vaccination for unvaccinated or incompletely vaccinated HCP with reasonably anticipated risk for blood or body fluid exposure. ACIP also recommends that vaccinated HCP receive postvaccination serologic testing (antibody to hepatitis B surface antigen [anti-HBs]) 1–2 months after the final dose of vaccine is administered. Increasing numbers of HCP have received routine HepB vaccination either as infants (recommended since 1991) or as catch-up vaccination (recommended since 1995) in adolescence. HepB vaccination results in protective anti-HBs responses among approximately 95% of healthy-term infants. Certain institutions test vaccinated HCP by measuring anti-HBs upon hire or matriculation, even when anti-HBs testing occurs greater than 2 months after vaccination. This guidance can assist clinicians, occupational health and student health providers, infection-control specialists, hospital and health-care training program administrators, and others in selection of an approach for assessing HBV protection for vaccinated HCP. This report emphasizes the importance of administering HepB vaccination for all HCP, provides explicit guidance for evaluating hepatitis B protection among previously vaccinated HCP (particularly those who were vaccinated in infancy or adolescence), and clarifies recommendations for postexposure management of HCP exposed to blood or body fluids.

Links

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Barriers to Human Papillomavirus Vaccination Among U.S. Adolescents: A Systematic Review of the Literature JAMA Pediatrics (11/25/2013) Holman, Dawn M.; Benard, Vicki; Roland, Katherine B.; et al.

Financial concerns and parental attitudes are two major barriers to human papillomavirus (HPV) vaccine coverage, as cited by healthcare professionals. Researchers recently completed a review of 55 articles to determine barriers to HPV vaccine coverage among U.S. adolescents and provide information for future efforts to increase coverage. Many parents want more information before vaccinating their children and may have concerns about the vaccine's effect on sexual behavior, or have a low perceived risk of HPV infection. Other factors that may prevent higher HPV vaccine uptake include social influences and irregular preventive care. In addition, some parents do not see a direct benefit in vaccinating their sons. Healthcare professional recommendations remain among the most important factors in a parent's decision to vaccinate his or her child. Based on these findings, the researchers suggest that healthcare professionals may benefit from additional guidance on communicating HPV recommendations to both patients and parents.

Vaccine disinformation: Katie Couric on HPV and Jenny McCarthy on autism The Washington Times

WASHINGTON, December 5, 2013 — Yesterday, Katie Couric aired a show titled the "Big Conversation" which devoted almost 30 minutes to the possibility that human papilloma virus (HPV) vaccinations may be causing deaths to recipients of the vaccine. To illustrate the so-called "controversy," Couric interviewed Rosemary Mathis, director of the anti-HPV organization SaneVax, Inc. and Emily Tarsell, both mothers who claim the HPV vaccine took their daughters lives. To bolster Couric's journalistic angle, Couric also trotted out Dr. Diane Harper, known as a lead researcher in the development of Gardasil and Cervarix, the two drugs approved as HPV vaccines. Harper, who once supported the use of HPV vaccines, has now done a 180 and has publically taken on an anti-vaccine position. In the 4th International Conference on Vaccination in Reston, Va. this year, Harper was a keynote speaker to support the use of HPV vaccination but stunned the audience by declaring she is changing her mind so she "could sleep at night". She claims "the risk of cervical cancer is already extremely low and that vaccinations are unlikely to have any effect upon the rates of cervical cancer in the USA" according to Bret Lambert in Disclosure. Harper claimed 70 percent of HPV self-resolves within a year without treatment and the figure rises to 90 percent after two years. Harper reported "that eight of ten women will have HPV at some point in their lives" and not become symptomatic. In the long run, "98 percent of cases will self- clear," and the vaccine is only good for five years. Why Couric took this non-controversial topic and is trying to make it controversial is akin to actress and former Playboy bunny Jenny McCarthy speaking out about vaccines causing high upticks in autism. It also matches University of Michigan finding that 24 percent of parents assign "some trust" to celebrity provided information. Couric and McCarthy may be providing a public disservice. Dr. Harpers statements and of HPV seem misleading and incomplete. The Center for Disease Control and Prevention reported there are more than 30 types of HPV transmitted through sexual contact and affect the anogenital areas. Some HPV cause genital warts that may become cancerous and are considered "high risk" and HPV infection is responsible for nearly all cases of cervical cancer.

Comments By Paul A. Offit, MD December 13, 2013 From Medscape Infectious Diseases © 2013 WebMD, LLC

Hi. I am Paul Offit. I am speaking to you from the <u>Vaccine Education Center</u> at the Children's Hospital of Philadelphia, in Pennsylvania. I want to talk about a television program that aired last week on a show called *Katie*, hosted by Katie Couric. This particular program took on the human papilloma virus (HPV) vaccine. Katie Couric brought a woman onto the show whose child, an 18-year-old, had died of uncertain causes about 2 and a half weeks ago following a third dose of the HPV vaccine. This show unnecessarily scared parents about the safety of this vaccine.

What do we know about this vaccine? We know that the HPV vaccine prevents the only known cause of cervical cancer.^[1] We know that every year in the United States, about 18,000 cancers are diagnosed in women, most of which are cervical cancer related to HPV types 16 and 18, and could be prevented by the types 16 and 18 that are contained in that vaccine. We know that ever year in the United States, about 8000 boys and men get cancers caused by HPV, and that most of those are caused by HPV types 16 and 18, also preventable with the vaccine.

We know that that vaccine was tested for 7 years in 30,000 women before licensure. We know that it has had extensive safety testing post-licensure. We know that about 40 million doses of that vaccine have been administered safely, and we know that absolutely none of those facts were presented on that show. The sad irony here is that Katie Couric lost a husband and a sister to [pancreatic] cancer. For that reason, she has become a vigorous activist in educating the public about the need for getting a colonoscopy to prevent that awful disease.

But in the HPV vaccine we arguably have the most powerful cancer-preventing vaccine for humans, and she handles it in a manner in which there is no way that the viewer would have an accurate understanding of that vaccine. In this case, for Katie Couric, if one event follows another, then it must be caused by the other, which is clearly not true. Even though the rooster crows every morning and the sun comes out, that does not mean that the sun is coming out because of the rooster crowing. And the HPV vaccine did not cause the death, which Katie Couric claimed.

The good news about this is that a lot of bloggers and scientists, science activists and scientific bloggers, stepped up to refute this. Time.com, *Forbes*, *Slate*, and a number of others also stepped up to criticize Katie Couric. I believe that this is really the good news because, frankly, 10 or 15 years ago, I do not believe that response would have happened. Thank you.

Editor's note: In a December 10 blog for the <u>Huffington Post</u>, Katie Couric responded to criticisms and acknowledged problems with balance in the recent coverage of the HPV vaccine on her show. We simply spent too much time on the serious adverse events that have been reported in very rare cases following the vaccine. More emphasis should have been given to the safety and efficacy of the HPV vaccines, "she wrote.

Scientists Use Weather Forecasting Methods to Predict Flu Season Peak U.S. News & World Report (12/03/13) Bidwell, Allie

Scientists at Columbia University's Mailman School of Public Policy predicted the timing of last year's flu season up to two months before it peaked using adapted weather forecasting techniques. The new flu forecasting system--which combines Google Flu Trends data and region reports from the Centers for Disease Control and Prevention--accurately predicted peaks in 63 percent of the country, anywhere from two to nine weeks in advance. The predictions were more accurate in small cities, meaning that predictions in large cities may have to be at a more granular level. Lead author Jeffrey Shaman says, "Having greater advance warning of the timing and intensity of influenza outbreaks could prevent a portion of these influenza infections by providing actionable information to officials and the general public." The study is published in Nature Communications.

Nearly 2,000 Princeton University Students Receive Meningitis Vaccine on the First Day It Is Available *Times of Trenton (12/10/13) Pizzi, Jenna*

Princeton University students have received the first round of a meningitis vaccine specially approved for use at the university after an outbreak of a rare strain of the bacteria. A university spokesman said that 1,959 students received their initial shots of the Bexsero vaccine on the first day it was offered. Bexsero, approved for use in Europe and Australia, protects against the serogroup B meningitis bacteria, which is uncommon in the United States. Eight cases of the serogroup B meningitis bacteria have been connected to the Princeton campus since March. Seven cases involved current students, and one involved a prospective student who had visited the university. Although the Centers for Disease Control and Prevention (CDC) and the Food and Drug Administration gave Princeton permission to administer the vaccine, it is still unavailable to the general population. The CDC has recommended that all university undergraduate students, and graduate students living in undergraduate dormitories, and other members of the university community with "certain medical conditions" receive the vaccine. Vaccination is voluntary, and the university will cover the cost.

Examination of Links Between Herpes Zoster Incidence and Childhood Varicella Vaccination

Annals of Internal Medicine (12/03/13) Vol. 159, No. 11, P. 739 Hales, Craig M.; Harpaz, Rafael; Joesoef, M. Riduan; et al.

New research suggests that age-specific herpes zoster (HZ) incidence rose among the over-65 population in the United States before the launch of the childhood varicella vaccination program. Contrary to some fears, the universal varicella vaccine program for U.S. children, introduced in 1996, did not appear to affect this increase. There had been concerns that less-frequent exposure to varicella would decrease immunity to varicella zoster virus and thus increase incidence of HZ. The new information can be reassuring for other countries that are considering universal varicella vaccination. This latest study included 2.8 million Medicare beneficiaries age 65 and older. Researchers found 281,317 incident cases of HZ, with age- and sex-standardized HZ incidence increasing 39 percent from 1992 to 2010. There was no evidence of a statistically significant change in the rate of increase after introduction of the varicella vaccination program.

Over 23 Million Children to Be Vaccinated in Mass Polio Immunization Campaign Across Middle East *Reuters* (12/09/13)

In the Middle East, national and local health authorities supported by partners that include UNICEF and the World Health Organization have launched a campaign to vaccinate more than 23 million children under age five against polio in Syria and neighboring countries. So far, there have been 17 cases of polio confirmed in Syria, and the virus has been detected in environmental samples in other parts of the Middle East. The vaccination campaign in Syria aims to reach 2.2 million children, including those who live in areas of unrest and those who missed an earlier vaccination campaign. Before the current outbreak, Syria had recorded no polio cases since 1999.

Whooping cough vaccine fails to stop spread of disease in FDA animal study By Nick Paul Taylor

Fierce Vaccines

For most of the second half of the 20th century, whooping cough was a disease of the past, one of many previously common infections practically eliminated by vaccines. Since the 1980s the bacteria has fought back, though, and now FDA researchers have a theory why--vaccines might not be stopping transmission. The hunch is based on FDA research into the spread of whooping cough among baboons, animals that respond to the bacteria in a similar way to humans. Writing in the *Proceedings of the National Academy of Sciences*, the team reports that baboons given the acellular vaccine--which has been used in the U.S. since the 1990s--were more likely to transmit the bacteria than those who received the whole-cell version. The germ persisted for almost twice as long in the throats of baboons given the acellular vaccine. Whole-cell vaccines were phased out amid safety concerns, but the study suggests that while its acellular replacement stops people feeling ill, it might not stop them transmitting the bacteria. The finding may explain the resurgence of whooping cough. "There were 48,000 cases reported last year despite high rates of vaccination. This resurgence suggests a need for research into ... improved ways to prevent the disease from spreading," National Institute of Allergy and Infectious Diseases director Dr. Anthony Fauci said in a statement. Sanofi (<u>\$SNY</u>), which along with GlaxoSmithKline (<u>\$GSK</u>) sells an acellular pertussis vaccine in the U.S., has questioned the applicability of the findings to humans. Others find the data more compelling though. "There's a difference between protecting individuals from illness and bringing down the incidence of pertussis in the population. To do both we may need a different vaccine," FDA microbiologist and co-author of the paper Tod Merkel told *Science*.

Ear Infections Down, Thanks to Vaccine Science Daily (11/25/2013)

Ear infection (otitis media) is one of the most common causes of pediatric healthcare visits as well as antibiotic prescriptions or surgery for children. Recent interventions to decrease the otitis media burden have been successful, researchers from the University of Texas Medical Branch at Galveston report in JAMA Pediatrics. Their 11-year study looked at trends in otitis media-related healthcare in the United States for the first 10 years after introduction of a new type of vaccine. The researchers looked at insurance claims data from 7.82 million children under age six who visited a healthcare provider for an ear infection or a complication or surgical intervention related to ear infection. Insurance claims were filed between 2001 and 2011; a pneumococcal conjugate vaccine was first introduced in the United States in 2000. Researchers found a downward trend in visits from 2004 to 2011, with a significant drop in children under age two years that coincided with the introduction of the 13-valent vaccine in 2010. One of the significant interventions against otitis media. Eighty percent of pediatric healthcare visits for ear infection resulted in an antibiotic prescription, though earlier this year, the American Academy of Pediatrics updated their guidelines to allow an observation option, without initial antibiotic treatment in children over age two who do not have serious ear infections, and in younger children with otitis media in only one ear.

Georgia reports first flu-related deaths of the season

Published on <u>December 16, 2013</u> by <u>Marjorie Clark</u> Vaccine News Daily

Influenza

The Georgia Department of Public Health confirmed on Wednesday the flu-related deaths of two people, the first in Georgia this flu season. DPH said the flu level in Georgia is considered minimal, but there are increases in flu activity, including hospitalizations. Flu symptoms include cough, runny nose, sore throat, fever and a feeling of achiness that comes on quickly. "The single most effective way to prevent the flu is the flu vaccine," J. Patrick O'Neal, the director of health protection at DPH, said. "Every healthy individual over the age of 6 months should get a flu vaccine, unless there are underlying medical conditions. In those cases, patients should consult their physician. The holidays bring gatherings with family and friends and increase the likelihood of spreading the flu. Now is the time to get vaccinated." Peak flu season typically lasts through the end of January. DPH said that if a person does not have access to soap and water, alcohol-based gels are the next best option to disinfect and prevent the virus from spreading. If people are sick, they should stay home from work or school. Those infected with the flu should stay home for at least 24 hours following a fever.

IAC Express – Special Edition

Issue 1092: December 4, 2013

Ask the Experts: CDC Experts Answer Your Questions

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

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

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

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

A: No.