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Mark Your Calendars:

Pediatrics by the Sea
Summer CME Meeting
June 10-13, 2015
The Ritz Carlton, Amelia Island, FL

ACIP Meeting
Advisory Committee on Immunization Practices (ACIP), CDC
June 24-25, 2015
Location: Tom Harkin Global Communications Center, CDC, Atlanta, GA

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Efficacy of an Adjuvanted Herpes Zoster Subunit Vaccine in Older Adults

New England Journal of Medicine (04/28/15) Lal, Himal; Cunningham, Anthony L.; Godeaux, Olivier; et al.

Researchers conducted a Phase III study to evaluate the efficacy and safety of a subunit vaccine containing varicella–zoster virus glycoprotein E and the AS01B adjuvant system (HZ/su) in adults aged 50 years and older. A total of 15,411 participants received two doses of the vaccine or placebo two months apart. Researchers for the ZOE-50 Study Group assessed the vaccine's efficacy in reducing the risk of herpes zoster in older adults. In a mean follow-up of about three years, herpes zoster was confirmed in six participants in the vaccine group and in 210 participants in the placebo group. Vaccine efficacy against herpes zoster was 96.6 percent to 97.9 percent for all age groups. There were reports of grade 3 symptoms in 17 percent of vaccine recipients and 3.2 percent of placebo recipients. The rate of serious adverse events, potential immune-mediated diseases, and deaths were similar in the two groups.

Whooping Cough: A Small Drop in Vaccine Protection Can Lead to a Case Upsurge
EurekAlert (04/23/15)

Researchers led by Dr. Manoj Gambhir of Monash University in Australia, Dr. Thomas Clark of the U.S. Centers for Disease Control and Prevention, and Prof. Neil Ferguson of Imperial College London reviewed 60 years of pertussis data to determine the cause of the decrease in the degree of vaccine protection that led to the highest number of pertussis cases in the United States since 1955 in 2012. Published in PLOS Computational Biology, the study reveals that the level of protection in the current acellular vaccine is lower than that of the previous whole-cell vaccine and that reporting of pertussis cases has steadily increased over time. Because the efficacy of the acellular vaccine is not much lower than that of the whole-cell vaccine--80 percent for the first three doses versus 90 percent--the researchers believe booster shots could be enough to put a damper on epidemics while research on new vaccines continues. "Pertussis has also been on the rise in several countries around the world, and we are eager to look at data from other countries to see whether the explanation for this is similar to what we found for the US." says Clark.

Tdap Vaccination During Pregnancy Remains Low

Troy Brown, RN, Medscape Medical News May 22, 2015

Just more than half of women surveyed reported receiving tetanus, diphtheria, and acellular pertussis (Tdap) vaccination before, during, or after pregnancy, which falls far short of current goals. There was wide variation among the states surveyed, according to a report from the Centers for Disease Control and Prevention (CDC) in Atlanta, Georgia.

Indu B. Ahluwalia, PhD, from the Division of Reproductive Health, National Center for Chronic Disease Prevention and Health Promotion, CDC, and colleagues report their findings in the May 21 issue of the Morbidity and Mortality Weekly Report.

"In June 2011, the Advisory Committee on Immunizations Practices (ACIP) recommended 1 dose of a [Tdap] vaccine during pregnancy for women who had not received Tdap previously," the authors write. "Before 2011, Tdap was recommended for unvaccinated women either before pregnancy or postpartum. In October 2012, ACIP expanded the 2011 recommendation, advising pregnant women to be vaccinated with Tdap during each pregnancy to provide maternal antibodies for each infant."

Infants younger than 6 months have substantially higher rates of pertussis and suffer the largest burden of deaths related to the infection. Maternal vaccination with Tdap vaccine is considered the best way to protect infants from pertussis, although vaccination during the postpartum period helps when earlier vaccination is not desired or feasible, according to the Global Pertussis Initiative.

Dr. Ahluwalia and colleagues analyzed supplemental data from 16 states and New York City participating in the Pregnancy Risk Assessment Monitoring System (PRAMS) on 6852 women who delivered live newborns during September to December 2011.

Among the 5499 women with known vaccination coverage status, 55.7% reported Tdap vaccination, with statewide rates ranging from 38.2% in NYC to 76.6% in Nebraska. The median proportion of women with live births during that period who reported Tdap vaccination before pregnancy was 13.9% (range, 7.7% - 20.1%), during pregnancy was 9.8% (range, 3.8% - 14.2%), and postpartum was 30.9% (range, 13.6% - 46.5%).

"Knowledge of Tdap vaccination among women and health care providers might be lagging because the changes to the Tdap recommendation were relatively recent. Promoting communication strategies that increase awareness of Tdap recommendations to providers, pregnant women, adults, and anyone who might come into contact with infants aged <12 months is important," the authors explain.

Prevalence of postpartum Tdap vaccination was higher among non-Hispanic white women, privately insured women, and those who began prenatal care in the first trimester.

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"With almost one fifth of women not knowing their Tdap vaccination status, there is a widespread need for providers to ensure they are communicating information about recommended vaccinations and to educate all women about the importance of keeping their vaccination status up-to-date and documented, especially reproductive-age women," the authors write. "Health care providers can assist pregnant women by providing specific information about where to obtain Tdap vaccination, or offering to provide the vaccination, and also to write a prescription in case it is needed; additional tools for providers are available."

The authors have disclosed no relevant financial relationships.

Morb Mortal Wkly Rep. 2015;64;522-526. Full text

American Academy of Pediatrics releases its Red Book: 2015 Report of the Committee on Infectious Diseases

The American Academy of Pediatrics (AAP) has released the 30th edition of its Red Book: 2015 Report of the Committee on Infectious Diseases. AAP's description of this resource reads:

The AAP's authoritative guide to the manifestations, etiology, epidemiology, diagnosis, and treatment of more than 200 childhood conditions.

The Red Book provides evidence-based guidance to practicing clinicians on pediatric infections and vaccinations based on the recommendations of the committee as well as the combined expertise of the CDC, the FDA, and hundreds of physician contributors.

The Red Book is an essential reference for pediatric infectious diseases specialists and general pediatricians, and is useful for family medicine and emergency medicine physicians as well. Public health and school health providers, medical residents, and students also will find it a high-yield source of pediatric infectious disease and vaccine information.

Information about ordering the Red Book as a paperback or e-book

California Senate votes to end beliefs waiver for school vaccinations

Sacramento, California By Sharon Bernstein

SACRAMENTO, Calif. California parents who do not vaccinate their children would have to home-school them under a bill passed Thursday by the state Senate, the latest move in a battle between public health officials and "anti-vaxxers" who fear vaccines are dangerous.

The bill, which eliminates the so-called personal beliefs exemption allowing parents to forego vaccinations if opposed to them for any reason, was introduced after a measles outbreak at Disneyland last year that sickened more than 100 people.

"The personal beliefs exemption is endangering the public," said Democratic state Senator Richard Pan, a pediatrician and co-author of the bill. The measure still allows children to attend school without vaccinations for medical reasons.

In recent years, vaccination rates at many California schools have plummeted as parents, some of whom fear a link between vaccines and autism, have declined to inoculate their children against such diseases as polio and measles.

Although the vast majority of children are vaccinated, at some schools, many in affluent, liberal enclaves, vaccination rates are well below the 92 percent needed to maintain the group immunity required to protect those who cannot be vaccinated for medical reasons or who have weak immune systems.

“The alarming increase in unvaccinated students places everyone at risk of contracting potentially fatal diseases," said state Senator Ben Allen, a Democrat from Santa Monica, whose father suffered from polio.

Parents who oppose mandatory vaccinations packed committee hearings to testify against the bill, which stalled at one point but was then revived. Thursday's vote came after an hour of heated discussion among senators, who voted 25-10, mostly along party lines, to support it.

"It comes down to what do we as a society trade when we mandate that somebody has to do something in order to protect somebody else," said Senate Republican leader Robert Huff, adding that his family members are vaccinated. The measles outbreak did not rise "to the level where we have to give up personal freedom."
But Allen said that 400 people die of measles every day in other parts of the world.

"One child who is not immunized is not a big deal," he said. "But more and more children not receiving vaccines allows for the potential spread of diseases." Under the bill, which still must be approved by the Assembly, unvaccinated children who do not have a medical exemption would have to study at home or in organized, private home-schooling groups.
(Editing by Eric Walsh)

Question of the Week

IAC Express Issue 1181: May 5, 2015

A 60-year-old patient will be starting corticosteroid therapy. He will start at 20 mg per day for 4 days, and then taper to 15 mg for 3 weeks. He will continue therapy for a year, but the dosing will change depending on his response. Should I administer zoster vaccine now or wait until he is taking a lower dose of corticosteroids? And if the patient should wait, what dose of corticosteroids would be safe for administration of the shingles vaccine?

Give the zoster vaccine now. Live vaccines should be deferred if a person is taking 20 mg or more of prednisone per day for 2 weeks or longer. An individual can receive a live virus vaccine (zoster in this case) one month after he is below 20 mg of prednisone (or equivalent) per day.

Question of the Week

IAC Express Issue 1182: May 12, 2015

How effective are the current pertussis vaccines and do they provide any protection against parapertussis?

DTaP vaccines are about 98% effective against pertussis within 1 year of receiving the fifth dose. However, 5 years later, protection declines to about 70%. Tdap vaccines are about 73% effective within 1 year of receiving a single dose. However, 2 to 4 years later protection declines to about 34%. Parapertussis, like pertussis, can cause a whooping cough-like syndrome. Most studies agree that current pertussis vaccines provide limited to no immunity to parapertussis.

Question of the Week

IAC Express Issue 1184: May 26, 2015

Can MMR, varicella, and hepatitis A vaccines be given to a child whose mother is hepatitis C positive?

Yes. These vaccines should be administered at the routinely recommended ages. A history of hepatitis C in the mother or other household contact is not a contraindication for any vaccine.