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Educating Physicians in their Communities

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Mark Your Calendars:

Winter Symposium: Joint Meeting with
Ga OBGYN Society
Atlanta Airport Marriott, Atlanta
February 21, 2015

CDC ACIP Meeting
February 25-26, 2015

Measles Cases Linked to Disneyland Rise, and Debate Over Vaccinations Intensifies
New York Times (01/22/15) P. A13 Nagourney, Adam; Goodnough, Abby

California health officials said Wednesday that 59 cases of measles have been diagnosed in the state, including 42 linked to an outbreak that began at Disneyland. Another eight related cases have been reported in Utah, Washington, Oregon, Colorado, and Mexico. Five of the cases are among workers at Disneyland. The outbreak has renewed a debate that the anti-vaccination movement has led to an increase in disease. As a result of the growing number of measles cases, unvaccinated students in California's Orange County have been prohibited from going to school; more than 20 children were sent home from a local high school this week. A recent Centers for Disease Control and Prevention (CDC) report said that the vaccination exemption rate in California kindergartners was 3.1 percent in 2013-2014. But health officials note there are pockets throughout the state where the exemption rate is much higher. The CDC reported 644 cases of measles in 27 states in 2014.

Vaccine Skeptics on the Rise
Wall Street Journal (01/26/15) P. A3 McKay, Betsy; Whalen, Jeanne

Public health officials are becoming increasingly concerned about the rise in vaccine skepticism among U.S. parents. The past two years have seen larger outbreaks of vaccine-preventible diseases, including a measles outbreak that began in December at California's Disneyland Resort. Science has debunked the link between vaccines and autism, but some parents now worry about the effects of multiple shots on a child's immune system. U.S. vaccination rates have been high since the mid-1990s, at about 94.7 percent for the measles, mumps, and rubella vaccine among kindergartners in the 2013-2014 school year. A growing number of communities and groups, however, are refusing or delaying children's vaccinations, says Gregory Wallace, head of the Centers for Disease Control and Prevention's (CDC's) domestic measles, mumps, rubella and polio team. This has made experts concerned that there could be a major measles comeback in this country, as a certain level of coverage is required to achieve "herd immunity." The years 2001-2011 saw 63 outbreaks of measles in the United States, but they were small, according to the CDC. In 2013, there were three outbreaks of more than 20 cases. Health care providers and vaccine experts are calling for greater efforts to identify communities of skeptics and help doctors in those areas better educate patients and reach out to parents.

Two Main Measles Vaccines Deemed Safe
www.hcplive.com/articles/Two-Main-Measles-Vaccines-Deemed-Safe
Author: Jacquelyn Gray

In a 12 year study conducted by Kaiser Permanente Vaccine Study Center, 2 main measles vaccines were determined safe, spurring no adverse reactions. "This level of safety monitoring for vaccines can give the public confidence that vaccine surveillance is ongoing and that if a safety problem existed, it would be detected," lead author Nicola P. Klein, MD, PhD, co-director of the Vaccine Study Center said in a Kaiser Permanente release.

For their analysis, investigators observed children 12 to 23 months, from January 2000 through June 2012 who received measles-mumps-rubella-varicella (or) or measles-mumps-rubella and varicella (or MMR + V) vaccines. Of the 123, 200 MMRV and 584, 987 MMR + V doses administered, researchers looked for 7 adverse outcomes including anaphylaxis, ITP, ataxia, arthritis, meningitis/encephalitis, acute disseminated encephalomyelitis, Kawasaki disease, seizure, and fever.

In doing so, researchers noted not only there was no link between neurological, blood or immune system disorders and the vaccines, that neither of the MMRV or MMR + V injections caused an increased risk. "In fact, there were few or zero events for several outcomes following vaccination. These findings indicate that even if an increased risk for these outcomes exists, the risk is low and rare. This should reassure parents that these outcomes are unlikely after either vaccine." Dr. Klein commented.

Even though the authors confirmed previous research that claimed MMRV and MMR + V vaccine were tied to febrile seizures 10 days after vaccinations among 1-year-old children,the seizures rarely occur, only happening in 1 of every 1,000 administrations. "This study did not identify any new safety concerns comparing MMRV with MMR + V or after either the MMRV or the MMR + V vaccine," researchers reported in *Pediatrics*. "This study provides reassurance that these outcomes are unlikely after either vaccine."

Early Estimates of Seasonal Influenza Vaccine Effectiveness--United States, January 2015
Morbidity and Mortality Weekly Report (01/16/15) Vol. 64, No. 1, P. 10 Flannery, Brendan; Clippard, Jessie; Zimmerman, Richard K.; et al.

Early estimates indicate that the seasonal influenza vaccine was just 23 percent effective. The interim estimate, which is relatively low when compared with previous seasons, likely reflects the fact that more than two-thirds of the circulating A(H3N2) viruses are antigenically drifted from the A (H3N2) vaccine component of 2014-2015 Northern Hemisphere seasonal flu vaccines. However, the Centers for Disease Control and Prevention (CDC) continues to recommend flu vaccination, noting that the vaccine can prevent some infections with the currently circulating A(H3N2) viruses and other viruses that may circulate later in the flu season. In addition, CDC recommends antiviral medications, noting that all hospitalized patients and outpatients at high-risk for serious complications from the flu should be given neuraminidase inhibitors as soon as possible if influenza is suspected, without waiting for confirmatory influenza lab testing.

High-Dose Flu Vaccine Best Course for Aged, Study Finds
Albuquerque Journal (01/12/15) Fuoco, Michael

A study published in the Journal of Infectious Diseases reveals that a high-dose flu vaccine generates a significantly better immune response in frail, older residents of long-term care facilities than a regular flu shot. Researchers at the University of Pittsburgh School of Medicine studied 187 people in 15 community-based, long-term care sites in western Pennsylvania whose average age was 86.7 years. Those who received Sanofi Pasteur's Fluzone High-Dose vaccine had a higher immune response for all but one flu strain in the 2011-2012 and 2012-2013 flu seasons, compared with those given the standard vaccine. There were no serious adverse reactions to the vaccine, which received Food and Drug Administration approval in December 2009 for people age 65 and older and contains four times the antigen of regular flu shots. "What this (study) shows is that for this very vulnerable population it makes complete sense that if you're going to do anything, go all out and go high dose," says David Nace, director of long-term care and flu programs at Pitt's Division of Geriatric Medicine, chief medical officer for UPMC Senior Communities, and the study's lead author. He recommends that the high-dose vaccine be used in long-term care facilities as part of a "bundled approach" that also involves vaccinating health care workers, requesting that people with flu-like illnesses not visit residents, practicing proper cough etiquette and hand hygiene, and frequently sanitizing commonly used areas and equipment.

Rotavirus Vaccination Coverage Remains Inconsistent

Lara C. Pullen, PhD

January 12, 2015

Continued rotavirus disease transmission appears to be associated with a failure to vaccinate. In particular, a new study has detected the highest levels of rotavirus disease among locations with low rotavirus vaccine coverage.

Leila C. Sahni, MPH, from Texas Children's Hospital, Houston, and colleagues present the result of their vaccine record review in an article published online January 12 in *Pediatrics*. They tracked down the vaccination records of patients who used the Texas Children's Hospital emergency department during the 2-year study period.

Children were assigned to a provider location on the basis of their vaccine record. Location level coverage was calculated according to the percentage of children in that location who had one or more dose of rotavirus vaccine: less than 40% coverage was defined as low coverage, from 40% to less than 80% coverage was defined as medium coverage, and 80% coverage or more was defined as high coverage.

The investigators found that 80.4% of control children (children with rotavirus-negative acute gastroenteritis or acute respiratory infection) received one or more dose of rotavirus vaccine from 68 locations. They identified four locations (5.9%), including neonatal intensive care units, that had low coverage.

Patients with acute gastroenteritis from low-coverage locations were 3.3 times more likely to have laboratory-confirmed rotavirus infection than patients with acute gastroenteritis from locations with high vaccine coverage (95% confidence interval, 2.4 - 4.4). The investigators also found that unvaccinated children tended to be older than children who had received one or more dose of rotavirus vaccine (22.5 vs 12.9 months; $P < .001$).

The rotavirus vaccine was introduced in 2006. Although uptake has increased steadily over the years, full coverage remains lower than for other vaccines. As a consequence, rotavirus disease continues to occur.

The study was not designed to determine the reason behind the low rotavirus vaccine coverage among some sites. Instead, it described the effect of such a lapse. "Providers who do not offer rotavirus vaccine to age-eligible children may create pockets of susceptible children that serve as reservoirs of ongoing disease transmission," the authors write. They conclude by suggesting that education efforts focus on the administration of rotavirus vaccine to eligible infants.

The authors have disclosed no relevant financial relationships.

Pediatrics. Published online January 12, 2015.

Question of the Week
IAC Express Issue 1163: January 20, 2015
If Kinrix (DTaP-IPV, GlaxoSmithKline) is inadvertently given to a child age 15 through 18 months, as the fourth DTaP dose and the third IPV dose, do the DTaP and IPV doses need to be repeated?

Answer: Since Kinrix is licensed and recommended only for children ages 4 through 6 years, you should take measures to prevent this error in the future. However, you can count this as a valid dose for DTaP and IPV as long as you met the minimum interval between administering dose #3 and dose #4 of DTaP (6 months) and dose #2 and dose #3 of IPV (4 weeks).

Question of the Week
IAC Express **Issue 1164: January 27, 2015**
A pediatric surgeon's 12-month-old child received the varicella vaccine and two days later developed a varicella-like rash. The surgeon had chickenpox as a child and had a positive varicella titer several years ago. Is it okay for the surgeon to continue to see patients? Also, is the varicella virus in the rash that develops following vaccination as virulent as the wild-type virus?

Answer: Because the surgeon is immune, the child's rash is not a problem and there is no need for the surgeon to restrict activity. In comparing a vaccine rash to wild-type chickenpox infection, transmission is less likely with a vaccine rash and, in general, there are fewer skin lesions.

Question of the Week
IAC Express Issue 1161: January 6, 2015

Do any of the bacterial vaccines that are recommended for people with functional or anatomic asplenia need to be given before splenectomy? Do the doses count if they are given during the 2 weeks prior to surgery?

Answer: Pneumococcal conjugate vaccine (PCV13), *Haemophilus influenzae* type b vaccine (Hib), and meningococcal conjugate vaccine (MCV4) should be given 14 days before splenectomy, if possible. Doses given during the 2 weeks (14 days) before surgery can be counted as valid. If the doses cannot be given prior to the splenectomy, they should be given as soon as the patient's condition has stabilized after surgery. Pneumococcal polysaccharide vaccine (PPSV23) should be administered 8 weeks after the dose of PCV13 for people 2 years of age and older.