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**Arizona Vaccine News**  
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## **VACCINE NEWS**

### **FDA Approves VariZIG™ for Use in High Risk Persons Exposed to Chicken Pox**

- VariZIG™ is now licensed by the US Food and Drug Administration (FDA) as a varicella zoster immune globulin (VZIG) that can be given intramuscularly to high risk individuals within 96 hours after exposure to varicella to reduce the severity of disease.
- High risk individuals include immunocompromised children and adults, newborns of mothers with varicella shortly before or after delivery, premature infants, infants less than one year of age, adults without evidence of immunity, and pregnant women.
- VariZIG™ is an antibody preparation manufactured from plasma of healthy donors who have high antibody levels against varicella zoster virus.
- An earlier FDA-licensed VZIG was removed from the U.S. market by the manufacturer in 2006.

For more information, see the [package insert](#).

### **US Institute of Medicine Releases Document on Safety of Current Vaccine Schedule**

- Due to continued parental concern about the safety of vaccines, the Institute of Medicine (IOM) convened a committee at the request of the Department of Health & Human Services' National Vaccine Program Office and the Centers for Disease Control and Prevention (CDC) to examine data on the safety of the current CDC-recommended vaccine schedule.
- The IOM committee uncovered no evidence of major safety concerns associated with adherence to the childhood immunization schedule.
- This [IOM report](#) is entitled "The Childhood Immunization Schedule and Safety: Stakeholder Concerns, Scientific Evidence, and Future Studies."

### **Pertussis Vaccine (Tdap) Recommended for All Pregnant Women during Each Pregnancy**

- Tdap is safe during any stage of pregnancy.
- Tdap should be given during every pregnancy, irrespective of any previous dose of Tdap, with the purpose to achieve high levels of transplacental pertussis antibodies in the infant.
- Immunoglobulin transplacental transport increases around 28 weeks gestation, so the vaccine timing for the highest transplacental transfer is between 27-36 weeks gestation.

See *Morbidity and Mortality Weekly Report* ([MMWR](#)), February 22, 2013.

### **CDC Publishes Updated Meningococcal Vaccine Recommendations**

- This in-depth document covers the epidemiology of meningococcal disease, the development of meningococcal vaccines, current meningococcal vaccination recommendations as of 2013, details on use of meningococcal vaccines in special populations, and how to deal with meningococcal outbreaks.

See [MMWR](#), March 22, 2013.

*Arizona Vaccine News May 7, 2013*

## **World Health Organization (WHO) Strategic Advisory Group of Experts on Immunizations Addresses the Use of Thimerosal in Vaccines**

- The Governing Council of the United Nations Environmental Programme is proposing a treaty that could result in having to replace thimerosal in vaccines with an alternate preservative or result in vaccine programs having to switch to single dose vials as a way of decreasing mercury-containing medicines.
- The WHO responded that replacement of thimerosal with an alternate preservative would only achieve exceedingly small environmental benefit while running the risks of:
  - Affecting the quality, safety and efficacy of vaccines.
  - Resulting in very large increases in costs and serious disruptions to routine immunization programs and mass immunization campaigns if thimerosal-preserved multi-dose vials were not available.
  - Causing a predictable and sizable increase in mortality from vaccine-preventable diseases.

For more details, see pages 215-216 in WHO's [\*Weekly Epidemiological Record\*](#), November 21, 2012.

## **American Academy of Pediatrics (AAP) Supports WHO's International Stance on Continuing to Use Thimerosal in Vaccines**

- AAP supports WHO's stance on keeping thimerosal-containing vaccines in international immunization programs.
  - Thimerosal-containing vaccines are safe, essential and irreplaceable components of immunization programs, especially in developing countries.
  - Removal of thimerosal from vaccines would disproportionately jeopardize the health and lives of the most disadvantaged children worldwide.

See the following articles in *Pediatrics*, January 2013, supporting the WHO stance:

- [Global Vaccination Recommendations and Thimerosal.](#)
- [Ban on Thimerosal in Draft Treaty on Mercury: Why the AAP's Position in 2012 Is So Important.](#)
- [Global Justice and the Proposed Ban on Thimerosal-Containing Vaccines.](#)
- [AAP's Statement of Endorsement: Recommendation of WHO Strategic Advisory Group of Experts \(SAGE\) on Immunization.](#)

## **LITERATURE ON VACCINES AND VACCINE-PREVENTABLE DISEASES**

### **Another Study Shows No Link between Vaccines and Autism**

- This study compared 256 children with autism spectrum disorder with 752 control children in a managed care organization as to their exposure to antibody-stimulating proteins and polysaccharides in the first two years of life.
- There was no statistically significant association between the vaccine antigen exposure and autism disorder, autism spectrum disorder, or autism spectrum disorder with regression.

For more details, see the on-line [article](#) in *Journal of Pediatrics*, March 6, 2013.

### **Depression Lowers Immune Response to Zoster Vaccine**

- The association between major depression and immune responses to zoster vaccine was evaluated in a two-year longitudinal study of 92 adults who were  $\geq 60$  years old.
- Zoster vaccine has been shown to boost cell-mediated immunity (CMI) to varicella zoster virus (VZV) and decrease the incidence and severity of shingles.
- In this study, depressed subjects who were not treated with antidepressant medications had lower levels of VZV CMI following administration of zoster vaccine than nondepressed controls or depressed subjects receiving antidepressants, even when the antidepressant medications failed to alter the depressive symptom severity.

See the [abstract](#) in *Clinical Infectious Disease* (CID), April 15, 2013.

### **Pediatric Rotavirus Vaccination Protects Adults from Rotavirus Infections**

- Bacterial stool cultures at a Chicago-area hospital were also examined for rotavirus during two periods: a period before the widespread use of pediatric rotavirus vaccines (2006-2007) and a period where there was widespread use of pediatric rotavirus vaccines (2008-2010).
- The presence of rotavirus in adult stools declined from 4.35% in 2006-2007 to 2.24% in 2008-2010. This decline was found in both outpatients and inpatients.
- The almost 50% decline in rotavirus detected in adult stools suggests that pediatric rotavirus vaccination indirectly protects adults from rotavirus.

See [abstract](#) from CID, March 15, 2013.

### **Vaccination Coverage among American Indian and Alaska Native Children, 2006-2010**

- During 2001-2004, there were lower vaccine coverage levels in American Indian/Alaska Native (AI/AN) children than among white children, but in 2005 the disparities in coverage were absent. Therefore, the period of 2006-2010 was examined to assess for vaccine coverage disparities.
- Overall, vaccination coverage was similar between the two groups in most years of the period 2006-2010. However, in the Southwest and Alaska, coverage for AI/AN children was frequently higher than that for white children.
- When stratified by geographic regions, AI/AN had coverage that was similar to or higher than that of white children for most vaccines in most years studied.

The [abstract](#) is available in *Pediatrics*, December 2012.

### **Eradication of Polio—Progress and Persistent Challenges**

- The Global Polio Eradication Initiative began in 1988 after the successful elimination of polio in the Americas.
- By 2006, transmission of indigenous wild polio virus had been halted in all but four countries: India, Pakistan, Afghanistan, and Nigeria. However, by 2011, setbacks had resulted in cases being exported to other neighboring countries.
- Currently, the main challenges to polio eradication are donor fatigue; political instability in affected countries; public fatigue with repeated immunizations against poliomyelitis; and weak routine immunization systems.

For more details, and for a map showing the countries that are still reporting cases of polio, see the [article](#) “Disease Eradication” in the *New England Journal of Medicine*, January 3, 2013.

### **No Increase in Spontaneous Abortions after Trivalent Influenza Vaccine**

- Investigators analyzed data from the six health maintenance organizations in the [Vaccine Safety Datalink](#) relating to pregnancy and seasonal influenza vaccine.
- There was no statistically significant increase in the risk of pregnancy loss in the 4 weeks after seasonal inactivated influenza vaccination.

See the [abstract](#) in *Obstetrics & Gynecology*, January 2013.

### **Small Association between Guillain-Barré Syndrome and Influenza A (H1N1) 2009 Monovalent Inactivated Vaccines in the US**

- A meta-analysis of data from six adverse event monitoring systems covering around 23 million vaccinated individuals was examined to determine whether the influenza A (H1N1) monovalent inactive vaccine involved in the 2009 mass vaccination initiative in the United States had increased the risk of Guillain-Barré syndrome.
- There was a small increased risk of Guillain-Barré syndrome, amounting to about 1.6 excess cases per million people vaccinated.
- The authors determined that the benefits from the inactivated 2009 pandemic vaccine still far outweighed the small increased risk of Guillain-Barré syndrome.

See the [abstract](#) in the *Lancet*, April 27, 2013.

### **Increased Risk of Narcolepsy in British Children Who Received Adjuvanted H1N1 Flu Vaccine**

- Children and adolescents in England who received the A/H1N1 2009 influenza vaccine (Pandemrix<sup>®</sup>) containing an ASO3 adjuvant during the H1N1 influenza pandemic were at an increased risk of narcolepsy.
- Previous studies had found a similar association with Pandemrix<sup>®</sup> and narcolepsy in patients in Finland and Sweden.
- Pandemrix<sup>®</sup> was only used during the 2009-2010 influenza season.

For more details, see the [article](#) published Feb. 26, 2013 in the *British Medical Journal*.

### **CDC Statement on Narcolepsy Following Pandemrix<sup>®</sup> Influenza Vaccination in Europe**

- An analysis of US safety data in the Vaccine Adverse Events Reporting System and the Vaccine Safety Data link found no indication of any association between U.S.-licensed H1N1 or seasonal influenza vaccines and narcolepsy.
- Pandemrix<sup>®</sup> was not used in the US. No adjuvanted influenza vaccines have been used in the US.

For more details, see the [statement](#) on the CDC website.

### **Analysis of Measles Outbreak in France, 2008-2011**

- After many years of few measles cases, France experienced more than 20,000 cases of measles during 2008–2011.
- Almost 5,000 patients were hospitalized, including 1,023 for severe pneumonia, 27 for encephalitis/myelitis, and 10 patients died.
- More than 80% of the cases during this period occurred in unvaccinated persons.

See the [article](#) in *Emerging Infectious Diseases*, March 2013.

## **Quadrivalent HPV Significantly Decreases Genital Warts in Women in Denmark**

- In Denmark, the quadrivalent human papillomavirus vaccine (HPV) vaccine was licensed for use in October 2006. Since January 2009, vaccination has been offered at no cost to all girls 12 years of age as part of the national childhood vaccine program, with catch-up vaccination of girls up to 15 years of age, resulting in about 80-85% HPV vaccine coverage.
- The incidence of HPV and other sexually transmitted infections were studied between January 1995 and July 2011 to see the effect of HPV vaccination in teenage girls. The incidences of genital *Chlamydia*, syphilis, and gonorrhea for both sexes were stable or increased during the study period, as well as genital warts in males.
- The overall incidence of genital warts in women had increased significantly until 2007, followed by an average yearly decline of 3.1% reflecting the increased number of HPV-vaccinated women.
- Women aged 16 to 17 years had genital warts virtually eliminated, showing the benefit of high coverage levels of HPV vaccination.

See the [abstract](#) in *Sexually Transmitted Diseases*, February 2013.

## **RESOURCES**

### **2013 Arizona Infectious Disease Training July 24-25, 2013**

- The Arizona Department of Health Services is hosting a two day infectious disease training with presentations on infectious disease topics including vaccine preventable diseases; nosocomial infections; tuberculosis and sexually transmitted diseases; vector-borne and zoonotic diseases; food-borne diseases; and information on outbreaks and investigations. The agenda will be finalized by May 31, 2013.
- The training will take place at the Black Canyon Conference Center, 9440 N. 25<sup>th</sup> Avenue, Phoenix, AZ 85021. Interested health care practitioners are welcome to attend. [Registration](#) and parking are free.

### **New AAP Form for Parents to Sign when Refusing Vaccines**

- The AAP has produced a 2013 version of a [form](#) to sign when parents are refusing one or more vaccines. The form also provides parents with a list of reliable vaccine information sites.

### **New CDC Infographic to Protect Babies from Pertussis**

- The [infographic](#) uses pictures to inform the community about the importance of pregnant women receiving Tdap vaccination, as well as the need for cocooning and the importance childhood DTaP vaccines. It can be used as a web button or a poster.

### **2013 CDC Immunization Recommendations for Children and Adults**

- This year Advisory Committee on Immunization Practices (ACIP) has combined recommended immunization schedules for 0-6 year olds with those for 7-18 year olds.
- The updated and combined schedules for persons 0-18 years, along with the recommended vaccine schedules for adults have been published in the February 1, 2013 [supplement](#) of the MMWR.

### **English and Spanish Television Public Service Announcements for the Office**

- CDC has produced English and Spanish Public Service Announcements that promote the benefits of vaccination to parents of children under two years of age.
- These [PSAs](#) can be posted on practice websites, or played on waiting room televisions.

### **Free AAP Audio Journal on Immunizations with CME**

- PREP Audio, has launched a [new FREE issue on immunizations](#) which is available via audio download and streaming video. It features top experts discussing best practices and latest research in immunizations. Participants are eligible for CME credit.

- Please feel free to distribute ADHS' *Arizona Vaccine News* to any of your partners who may be interested. Past issues of *Arizona Vaccine News* can be found at: <http://www.azdhs.gov/phs/immun/vacNews.htm>