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Arizona Vaccine News

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VACCINE NEWS

Travelers to China Need to Be Up-to-date on Polio Vaccine

- For the first time in more than ten years, cases of polio have been reported in China.
- All cases were reported in the northwest part of China (Xinjiang Uygur autonomous region).
- Genetic sequencing of the poliovirus isolated from these cases most closely resembles wild poliovirus type 1 found in Pakistan during the second half of 2010.
- CDC now recommends that travelers to all parts of China be up-to-date on the polio vaccine. This includes adults having a booster dose of inactivated polio vaccine (IPV).

For more details, including vaccination information for children and adults, see

<http://wwwnc.cdc.gov/travel/notices/outbreak-notice/polio-china.htm>

Health-Care Personnel Immunization Recommendations Updated by CDC

- The Centers for Disease Control and Prevention (CDC) has updated the 1997 Advisory Committee on Immunization Practices (ACIP) recommendations for immunizations in health-care personnel (HCP).
- Routine vaccination or documentation of immunity for all HCP is recommended for the following illnesses: hepatitis B, seasonal influenza, pertussis, measles, mumps, rubella, and varicella.
- Routine HCP vaccination is important because of the risks to HCP from their work settings, and to the patients whom they serve if HCP were to become infected.
- In certain circumstances, HCP may also need meningococcal, typhoid, or polio vaccines.
- In addition, HCP should consider the following vaccines based on their individual risk factors: pneumococcal, human papillomavirus, zoster, hepatitis A, and tetanus/diphtheria.

For more details, see *Morbidity and Mortality Weekly Report (MMWR)*, November 25, 2011

<http://www.cdc.gov/mmwr/pdf/rr/rr6007.pdf>

Varicella Zoster Vaccine (Zostavax[®]) Now Licensed for Adults 50 Years and Older

- The Food and Drug Administration (FDA) recently decreased the approved age for Zostavax[®] from 60 years and above to 50 years and above. This was based on a study that showed adults who were 50-59 years old and received Zostavax[®] had a 70% reduction in shingles in the year following vaccination.
- In spite of the new FDA licensing age, CDC has declined at this time to recommend Zostavax[®] use in the 50-59 year old group. This is because of supply issues and unanswered questions about the length of effectiveness of Zostavax[®] if it were to be given at a younger age.
- CDC continues to recommend Zostavax[®] for adults 60 years and older.
- However, CDC states that in light of the new FDA licensing age, providers may consider giving Zostavax[®] to patients 50-59 years old who are anticipated to poorly tolerate herpes zoster or postherpetic neuralgia symptoms. Situations could include preexisting chronic pain, severe depression, an inability to tolerate antiviral treatment medications because of allergy or interactions with other chronic medications, or occupational considerations.

For more information, see *MMWR*, November 11, 2011

<http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6044a5.htm>

INFLUENZA VACCINE

Live-Attenuated Influenza Vaccine (LAIV) Safe for Close Contacts of Pregnant Women

- Pregnant women should not receive LAIV (FluMist[®]). However, it is safe to give LAIV to close contacts of pregnant women.
- All pregnant women should receive trivalent inactivated influenza vaccine (TIV) to protect them during influenza season, regardless of the trimester of the pregnancy.

For more information about pregnant women and influenza vaccination (LAIV and TIV), see *MMWR*, August 6, 2010 <http://www.cdc.gov/mmwr/pdf/rr/rr5908.pdf>

Influenza Vaccine Not as Immunogenic in Obese Individuals

- Antibody responses and the function of CD8+ T-cells were measured in obese adults at 1 and 12 months after vaccination with 2009-2010 seasonal trivalent inactivated influenza vaccine (TIV).
- Although the obese study participants mounted a vigorous initial antibody response to TIV, influenza vaccine antibody levels declined significantly over time, and CD8+ T-cell responses were defective in obese individuals compared with healthy weight individuals.
- During the 2009 H1N1 influenza pandemic, obesity was recognized as an independent risk factor for increased influenza morbidity and mortality.

For more information see *International Journal of Obesity*, October 25, 2011.

<http://www.nature.com/ijo/journal/vaop/ncurrent/pdf/ijo2011208a.pdf>

VACCINE-PREVENTABLE DISEASES

Decrease in Vaccine-Preventable Diseases in the U.S., 2001-2010

- Vaccination of each U.S. birth cohort with the current childhood immunization schedule prevents approximately 42,000 deaths and 20 million cases of disease, with net savings of nearly \$14 billion in direct costs and \$69 billion in total societal costs.
- Pneumococcal conjugate vaccines prevented an estimated 211,000 serious pneumococcal infections and 13,000 deaths during the time period of 2000-2008.
- Routine rotavirus vaccination now prevents an estimated 40,000--60,000 rotavirus hospitalizations in the U.S. each year.
- Deaths from varicella in people less than 20 years old fell from 0.65 per million in the prevaccine period (1990-1994) to 0.02 per million during the time period of 2005-2007.

For more information, see *MMWR*, May 20, 2011

http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6019a5.htm?s_cid=mm6019a5_w

Decrease in Vaccine-Preventable Diseases Worldwide, 2001-2010

- An estimated 2.5 million deaths have been prevented worldwide each year among children less than 5 years old through the use of measles, polio, and diphtheria-tetanus-pertussis vaccines.
- Expanded coverage with measles vaccine resulted in a 78% decline in measles mortality from 2000 to 2008, averting an estimated 12.7 million deaths.
- Polio eradication efforts decreased the number of countries with endemic disease from 20 to four, with fewer than 1,500 polio cases reported in 2010.
- During 2000-2009, the number of countries using *Haemophilus influenzae* type b (Hib) vaccine worldwide increased from 62 to 161. The resulting 38% increase in global Hib vaccine coverage prevented an estimated 130,000 deaths a year due to pneumonia and meningitis in children less than 5 years old.

- The number of countries using hepatitis B vaccine increased from 107 in 2000, to 178 in 2009. Due to the global hepatitis B vaccination coverage of 70% achieved by the end of this decade, it is expected that at least 700,000 deaths from cirrhosis and liver cancer will be averted in each annual birth cohort of these 178 countries.

For more information, see *MMWR*, June 24, 2011

http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6024a4.htm?s_cid=mm6024a4_w

Increased Measles Outbreaks and Spread in Europe

- So far this year, a total of 26,074 measles cases have been reported in Europe as of October 26. France reported the largest number of cases (approximately 14,000). Of these measles cases, 7,288 people were hospitalized and 9 people died.
- Measles importations from Europe have accounted for most of the measles cases in the United States since 2008.
- The principal factors contributing to decreased demand for measles vaccination in Europe include a lack of knowledge of the seriousness of the disease, resulting in a reluctance to be vaccinated; skepticism about the benefits of vaccination; fear of adverse effects from being vaccinated, and limited health-care access for some underserved populations
- The current continuing spread of measles in Europe demonstrates that when measles vaccination coverage is less than <95%, it allows for ongoing virus transmission which results in large-scale outbreaks

For more information, see *MMWR*, December 2, 2011

<http://www.cdc.gov/mmwr/pdf/wk/mm6047.pdf>

RESOURCES

Rabies Postexposure Prophylaxis Online Course

- A new course entitled “Rabies Postexposure Prophylaxis Basics” is a free online course developed by the Maryland Department of Health and Mental Hygiene in collaboration with CDC.
- The course is designed to educate health-care and public health professionals about rabies, the approach used in assessing rabies virus exposure, and administration of rabies postexposure prophylaxis.
- Continuing Education credits are available to any physician, nurse, pharmacist, or veterinarian who takes the training.

For more information, see

http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6045a5.htm?s_cid=mm6045a5_x

Historical Pictures about Vaccines Found at the *History of Vaccines* Website

- *The History of Vaccines* is an award-winning educational website created by the College of Physicians of Philadelphia.
- The website chronicles the history of vaccination, from pre-Jennerian variolation practices, to the defeat of polio in the Western Hemisphere, to cutting-edge approaches to novel vaccines and vaccine delivery.
- The website aims to increase public knowledge of vaccines as well as discussing some of the controversies about vaccination.

For more information, see <http://www.historyofvaccines.org>

GUIDANCE FROM THE ARIZONA DEPARTMENT OF HEALTH SERVICES (ADHS)

Ways to Improve Tdap Documentation on Arizona Immunization Record

- The blue Lifetime Immunization Record that ADHS distributes to providers does not have a line for the Tdap vaccine for adolescents. The two places on the record that Tdap vaccine can be documented are the “Td” line or the “Other” line.
 - When some providers give Tdap vaccine to adolescents, they document the vaccination on the “Td” line, without specifying that it was actually a Tdap vaccine.
 - School nurses are required to make sure that adolescents have a Tdap vaccine. Therefore, failure to clearly document that the patient received a Tdap results in multiple telephone calls to the providers’ offices.
 - In the future, the ADHS immunization record will be updated to include a line for Tdap. In the interim, to avoid unnecessary telephone calls to your office, please instruct your staff to document adolescent Tdap vaccination by either writing the information for Tdap in the “Other” category, or by entering the information on the “Td” line, but specifying that it was a Tdap.
- 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>