

Epi Update for Friday, March 10, 2017
Center for Acute Disease Epidemiology (CADE)
Iowa Department of Public Health (IDPH)

- **Items for this week's EPI Update include:**
- **Adverse health effects from ingestion of hand sanitizers**
- **Update on carbapenem-resistant Enterobacteriaceae (CRE)**
- **New meningococcal vaccine requirement for 2017-2018 school year**
- **Smallpox: a reminder**
- **Infographic: Healthy families and flocks**
- **Meeting announcements and training opportunities**

Adverse health effects from ingestion of hand sanitizers

Hand sanitizers can be a convenient alternative when soap and water are not available, but ingestion or improper use can be associated with health risks. The National Poison Data System found over 70,000 exposures to hand sanitizers reported in children 12 years and under from 2011 to 2014. Over 90 percent of these exposures were among children 0-5 years old and were almost exclusively oral ingestions (97 percent). Children 6-12 had more intentional exposure to alcohol-based sanitizers, suggesting possible deliberate alcohol abuse.

Be aware of the potential danger associated with ingestion of alcohol hand sanitizers. Make sure alcohol hand sanitizers are used correctly, under adult supervision, and with proper child safety precautions and make sure they are stored out of reach of young children. Clinicians evaluating pediatric patients with clinical signs and symptoms consistent with alcohol toxicity, such as nausea, vomiting, respiratory depression, and drowsiness, or laboratory results consistent with ethanol or isopropanol toxicity, should consider the possibility of an alcohol hand sanitizer ingestion and contact their local poison control center. For more information, visit www.cdc.gov/mmwr/volumes/66/wr/mm6608a5.htm.

Update on carbapenem-resistant Enterobacteriaceae (CRE)

CREs are an emerging threat to public health and efforts are needed to prevent and contain the spread of these highly resistant organisms. Effective January 1, 2017, infections caused by CRE were added as a temporarily reportable disease in Iowa. IDPH defined CRE as follows: Enterobacteriaceae, including the following species: 1) *Klebsiella* spp., 2) *Enterobacter* spp., 3) *E. coli*, or 4) *Citrobacter* spp., that:

- are resistant to any one of the following carbapenem antibiotics: imipenem, meropenem, doripenem, or ertapenem, based on current Clinical and Laboratory Standards Institute Standards (M100)

OR

- demonstrate production of a carbapenemase (enzymes that break down carbapenems and related antibiotics, and make them ineffective).

Specimens should be submitted to the State Hygienic Laboratory for additional testing for the production of carbapenemase.

Since surveillance began in Iowa, 30 cases of CRE have been reported. Of those, four have been identified as possessing a carbapenemase, including one with the OXA-48 enzyme. Investigations are ongoing to determine additional risk factors and to implement infection prevention measures to stop the spread of CRE in Iowa. For more information on CRE, visit www.cdc.gov/hai/organisms/cre/index.html.

New meningococcal vaccine requirement for 2017-2018 school year

Beginning in January of 2017, students enrolling in 7th and 12th grades are required to have the meningococcal (A, C, W, Y) vaccine. This will be fully implemented at the beginning of the 2017-2018 school year. This change requires a one-time dose of meningococcal (A, C, W, Y) vaccine received on or after 10 years of age for applicants in grades 7 and above, if born after September 15, 2004; and 2 doses of meningococcal (A, C, W, Y) vaccines for applicants in grade 12, if born after September 15, 1999; or 1 dose if received when applicants are 16 years of age or older. For more information, visit www.idph.iowa.gov/immmtb/immunization/laws.

Meningococcal disease caused by any serogroup is very serious. Approximately 10 to 15 percent of people with meningococcal disease die even with appropriate treatment. Of those who recover, up to 20 percent suffer from serious after-effects, such as permanent hearing loss, limb loss, or brain damage. Meningococcal vaccines are very safe and effective at preventing meningococcal disease. The meningococcal vaccine is 85 to 100 percent effective at preventing infection from the subtypes of meningococcus found in the vaccine.

Smallpox: a reminder

Smallpox was officially eradicated worldwide in 1980; however, reminders of this virus continue to pop up across the U.S. Just this week, IDPH received a call from a family member cleaning out an attic. The caller had found a vial, with a needle stuck in the top, labeled 'smallpox vaccine.' A similar situation happened in Iowa when an envelope was found labeled 'smallpox scabs.' So what does this mean for public health?

Both items were carefully packaged and sterilized before being disposed of as medical waste, but these situations are a reminder to never forget a virus that made a large impact on history, as well as the global vaccination success story of its eradication.

Before the age of the vaccine, smallpox killed three out of 10 infected individuals and left others permanently scarred. It was easily transmissible via body fluids and on inanimate objects. Today, there are only two locations where the virus can be found - at the CDC in Atlanta, Georgia, and at the State Research Center of Virology and Biotechnology in Koltsovo, Russia.

The basis for vaccination began in 1796 with the cowpox virus, and in the 1800s switched to the vaccinia live attenuated vaccine. While smallpox vaccine is no longer used for the general public (due to its eradication), the U.S. has enough stockpiled that every U.S. citizen could be vaccinated should this disease ever appear again.

Infographic: Healthy families and flocks

Infographic available at www.cdc.gov/healthypets/resources/backyard-flock-8x11.pdf

Meeting announcements and training opportunities

None

Have a healthy and happy (and windy, warm, then snowy) week!

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