

EPI Update for Friday, June 29, 2012
Center for Acute Disease Epidemiology (CADE)
Iowa Department of Public Health (IDPH)

Items for this week's EPI Update include:

- Update on last week's events
- 2009 Missouri illnesses associated with novel phlebovirus
- Precautions to protect patients in extreme heat
- Fireworks safety
- Questions from the field: *diphtheria in a shadow box*
- Meeting announcements and training opportunities

Update on [last week's events](#)

Possible case of botulism: Patient's clinical and food specimens from his house were all negative; thus, not meeting the case definition of botulism – may actually be Guillain-Barre Syndrome.

Campylobacter possibly associated with raw milk: no more reported cases and raw milk consumption was discouraged.

Food handler at sandwich shop with hepatitis A: coworkers have been vaccinated and surveillance heightened and will continue for the next six weeks. No further cases reported as of July 28.

Salmonella illnesses causing hospitalizations, possibly associated with incorrectly handled meat: laboratory testing at SHL found the same serogroup of salmonella in foods served at this event and in several patients. Hospitalized patients have been discharged. Epidemiologic and environmental investigation indicates the probable source of the contamination was mishandled pork. For more information on proper food handling, visit www.idph.state.ia.us/Cade/Foodborne.aspx.

2009 Missouri illness associated with novel phlebovirus

In 2009, blood from two Missouri residents was sent to CDC to be tested for suspected ehrlichiosis. Both patients reported multiple tick exposures in the days prior to their illness and presented with fever, fatigue, anorexia, diarrhea, leukopenia, and thrombocytopenia. Both patients were treated with doxycycline, but no significant improvement was noted. The patients were released from the hospital after 10 and 12 days and while one completely recovered within a month of being hospitalized, the other reports fatigue and headaches two years later.

Ehrlichiosis testing was negative, but viral tests on both patients' blood specimens showed viruses that were genetically similar to a phlebovirus identified in 2011 in China. Human infections with the new Chinese virus can result in severe fever and thrombocytopenia syndrome (SFTS). The cases in Missouri were similar to SFTS; however, neither patient suffered from the severe symptoms – such as overt bleeding, cerebral hemorrhage, and multi-organ failure – as described in SFTS patients in China.

Human pathogens of the genus *Phlebovirus* are predominantly transmitted through arthropod vectors such as ticks, mosquitoes, and sandflies. Since the phlebovirus discovered in the two Missouri patients is a novel virus, a public health investigation is being conducted to learn more about its characteristics. To read Missouri's health advisory on this novel disease, visit

www.health.mo.gov/emergencies/ert/alertsadvories/pdf/advisory61112.pdf.

Precautions to protect patients in extreme heat

Since the summer heat is upon us, please remind patients to take measures to prevent heat stress.

Anyone, even young and healthy individuals, can suffer heat stress if they are very active during hot weather or the heat index is very high; however, the following people are at greatest risk:

- Individuals 65 years of age or older
- Infants and young children
- Overweight individuals
- People who are performing manual labor or exercising outdoors
- People who are physically ill, especially with heart disease or high blood pressure, or who take medications, such as those for depression, insomnia, or poor circulation

Remind patients to keep cool and use common sense when temperatures and humidity are high by:

- Keeping in the shade or air conditioned areas as much as possible
- Increasing fluid intake
- Replacing salt and minerals by eating foods like bananas and salty crackers, or drinking rehydrating beverages such as sports drinks
- Choosing lightweight, light-colored, loose-fitting clothing
- Wearing sunscreen
- Working slowly if not used to working or exercising in heat and humidity
- Stopping outdoor activities immediately if they feel dizzy or nauseated
- Using a buddy system. Watch others for heat-induced illness.

For additional information on heat stress, visit www.cdc.gov/niosh/topics/heatstress/ or www.bt.cdc.gov/disasters/extremeheat/heat_guide.asp.

Fireworks safety

In 2008, 7,000 fireworks-related injuries were treated in U.S. hospital emergency rooms. Typically, 60 percent of injuries from fireworks in the U.S. occur in the month surrounding the July 4th holiday.

- In 2008, two of five victims of fireworks injuries were under age 15. The highest rates of injuries were for teens ages 15 to 19 and children ages 5 to 9.

- Between June 18 and July 18, 2005, firecrackers (26 percent), sparklers (17 percent), and rockets (17 percent) accounted for most of the injuries seen in emergency departments. Sparklers were associated with over half of the estimated injuries among children under 5 years of age during the same time period.

As we enter the 4th of July week and summer festivities, visit www.cpsc.gov/info/fireworks/index.html for more information on fireworks safety.

Questions from the field: *diphtheria in a shadow box*

Q: An 87-year-old female called to ask if diphtheria can survive for many years in the hair of diphtheria victims. She has a “sealed” shadow box with locks of hair from three young children who died of diphtheria many years ago. She wanted to remove other items in the shadow box, but wondered if the locks of hair would be infectious.

A: *Corynebacterium diphtheriae* is not a good survivor, so anything contaminated years ago would not be infectious. Also, it's highly unlikely that hair would ever be contaminated with the organism.

Disease info: Diphtheria is an upper [respiratory](#) tract illness caused by [Corynebacterium diphtheriae](#). Symptoms include sore throat, low grade [fever](#), and most characteristic of the disease, a pseudo membrane on the [tonsils](#), [pharynx](#), and/or nasal cavity. The word “diphtheria” comes from the Greek language and means “pair of leather scrolls.” Cutaneous diphtheria is another form of the disease and tends to be milder.

Diphtheria is transmitted by contact and droplets, and has largely been eradicated in industrialized nations. In the U.S., for example, there were 52 reported cases of diphtheria between 1980 and 2000; between 2000 and 2007, there were only three cases. This is a direct result of the diphtheria–[pertussis](#)–[tetanus](#) ([DPT](#)) [vaccine](#) being given to school-age children, and diphtheria booster being included in the tetanus booster, which is given to adults.

Meeting announcements and training opportunities

None

Have a healthy and happy 4th of July!

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