

EPI Update for Friday, January 9, 2009
Center for Acute Disease Epidemiology
Iowa Department of Public Health (IDPH)

Items for this week's EPI Update include:

- **One Iowa case: national *Salmonella typhimurium* cluster**
- **A review of hantavirus infections in Iowa**
- **Public health response to *Neisseria meningitidis***
- **A reminder to all laboratories**
- **Foodborne Outbreak Investigation Manual now available online**
- **Meeting announcements and training opportunities**

One Iowa case: national *Salmonella typhimurium* cluster

One patient in Iowa, with *Salmonella typhimurium*, is being investigated as part of a current national cluster of 388 cases occurring in 42 states. The source of this outbreak is unknown at this time. *Salmonella* is typically spread by eating contaminated foods, such as meat, poultry, milk, eggs, and vegetables. Washing and cooking food properly can decrease the risk of illness.

Salmonella can also be carried by reptiles, such as turtles, lizards, and snakes, as well as chicks and young birds. Transmission to humans occurs via direct contact. Thus, thorough hand washing with soap and warm water is recommended after handling animals.

Symptoms include diarrhea, vomiting, and fever. Incubation period is typically 12 to 36 hours, and illness usually lasts four to seven days. Antibiotic treatment is not recommended in uncomplicated cases, but hydration is important.

Identifying *Salmonella* requires laboratory testing, and all isolated *Salmonella* should be sent to the UHL for further DNA fingerprinting. This allows for comparison with salmonella isolates in other states and nationally.

For more information on *Salmonella*, visit www.cdc.gov/nczved/dfbmd/disease_listing/salmonellosis_gi.html

A review of hantavirus infections in Iowa

Recently, a fatal case of hantavirus pulmonary syndrome (HPS) was reported to IDPH. This is the seventh case of HPS in Iowa since the disease was first identified in 1993 in the four corners area of the U.S.

Mice and other rodents are the natural hosts for hantavirus and shed the virus in saliva, urine, and feces; infected mice have been found in Iowa. Human infections result from exposure to aerosolized mice urine and/or feces or from handling mice or nesting materials.

HPS is caused by hantavirus; most commonly the Sin Nombre strain. Cases have been reported in 30 states. Through March 2007, there have been 465 cases of HPS in the

United States: 64 percent male and 37 percent female. Average age is 38 years (range 10 to 83 years). There is a national mortality rate of 35 percent for HPS. The majority of patients reside in rural areas.

The first Iowa case was reported in 1997. All seven cases have been male, ranging in age from 12 to 47 years; three died. Substantial rodent exposure was identified in most cases.

Hantavirus pulmonary syndrome is a severe illness characterized by fever and acute respiratory distress. Clinical information for health care professionals can be found at: www.cdc.gov/ncidod/diseases/hanta/hps/noframes/phys/printtechsection.htm

Rodent control in and around the home remains the primary strategy for preventing hantavirus infection. Recommendations for cleaning rodent infested areas include saturation of mice or mice material with a bleach solution or household disinfectant before removal. For more specific information about rodent control, and appropriate cleaning measures visit: www.cdc.gov/ncidod/dvrd/spb/mnpages/HPS_Brochure.pdf.

Public health response to *Neisseria meningitidis*

Recently there was media attention on a death related to meningococcal meningitis. When these cases occur, local public health officials immediately investigate, identify close contacts, and recommend antibiotic prophylaxis to those who were exposed to prevent spread of the disease.

While, meningococcal vaccine is not used as prophylaxis after direct exposure to the disease, but may be given to prevent future infection. In response to the media attention, meningococcal and influenza immunizations were provided to area residents who were eligible for the vaccines (recent influenza illness may increase the risk of developing meningococcal disease). The meningococcal vaccine is routinely recommended for all children aged 11 through 18 years, as well as children aged 2 through 10 with high risk medical conditions, such as asplenia and complement deficiency. For more information about meningococcal disease and vaccination, visit: www.cdc.gov/meningitis/index.htm

Meningococcal disease is an emergency reportable disease, and should be reported immediately to the local health departments and to IDPH at (800) 362-2736 during business hours, or (515) 323-4360 after hours.

A reminder to all laboratories

Laboratories who perform testing on Iowa residents are charged under Administrative Code [641] Chapter 1 to send all isolates of *Salmonella*, *Shigella*, *E. coli* O157:H7 and other shiga toxin producing *E. coli*, and *Listeria monocytogenes* to the University Hygienic Laboratory (UHL) allowing for pulsed field gel electrophoresis (DNA fingerprinting) to be performed.

Also, suspected and confirmed *Mycobacterium tuberculosis* should be sent for susceptibility testing. Concentrated specimens that are positive for acid fast bacillus should also be sent for MTD testing.

Also, *Neisseria meningitides* and *Haemophilus influenza* isolates from sterile body sites are required to be sent to UHL for serotyping.

Also, all isolates of methicillin-resistant *Staphylococcus aureus*, group A streptococcus, *Streptococcus pneumonia* and enterococcus from sterile body sites should be sent to UHL.

These tests allow the rapid identification of patients associated with local, state and national outbreaks and guide appropriate public health response. This can only be accomplished with your cooperation.

Foodborne Outbreak Investigation Manual now available online

IDPH is pleased to announce the [Foodborne Outbreak Investigation Manual](#) is now available online. This manual is organized to mirror the progression of a general foodborne outbreak investigation, and includes epidemiologic, environmental, and laboratory components.

Meeting announcements and training opportunities

None.

Have a healthy and happy week!

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