

EPI Update for Friday, July 25, 2008
Center for Acute Disease Epidemiology
Iowa Department of Public Health

Items for this week's EPI Update include:

- **Shiga-toxin producing *E. coli* cases on the rise**
- **West Nile season is upon us**

- **Pertussis outbreak reinforces need to vaccinate health care workers**
- **New ACIP recommendations on use of influenza vaccine in children**
- **Meeting cancellation**

Shiga-toxin producing *E. coli* cases on the rise

An increasing number of shiga-toxin producing *E. coli* cases are being reported to CADE. No significant clusters have been identified so far.

Two-thirds of all cases reported in the last four weeks have occurred in persons aged 21 years and younger. Serotypes include O26, 111, and 103.

Symptoms of shiga-toxin producing *E. coli* will be bloody diarrhea and abdominal pain; typically they do not have fever. Children and adolescents have the highest risk for developing complications of shiga-toxin producing *E. coli* infection, such as hemolytic uremic syndrome. Antibiotics are not recommended for the treatment of this disease and may increase the risk for complications.

All cases of shiga-toxin producing *E. coli* should be immediately reported to Local Public Health or CADE. Specimens testing positive for shiga-toxin in suspected *E. coli* cases should be sent to the University Hygienic Laboratory for confirmation and serotype determination. For questions about specimen submission, contact UHL at 319-335-4500.

West Nile season is upon us

Mosquito trapping conducted by local officials and the Iowa State University Medical Entomology Department in late June and early July demonstrated that *Aedes vexans* and *Aedes trivittatus*, both floodwater mosquitoes, were abundant. These mosquitoes don't usually transmit West Nile virus to humans. This increase was expected, as large numbers of flood water mosquitoes usually appear about one to two weeks after heavy rains and flooding.

As the flood waters have receded and the standing water has concentrated, the overall number of mosquitoes has declined. The proportion of *Culex* mosquitoes has increased, however. *Culex* mosquitoes are a significant public health threat because they are more likely to transmit viruses such as West Nile virus.

Although we have not had a confirmed case of West Nile virus in humans this year, nor have any of our mosquito pools or sentinel chickens tested positive for exposure to West Nile virus, this increase in **Culex** mosquitoes could be an early indicator of increasing viral activity.

We encourage everyone to take the following measures to protect themselves from disease:

Avoid mosquito bites by:

- Applying approved insect repellents.
- Wearing protective clothing, such as long-sleeves, long pants, socks and shoes.
- Being aware of peak hours of mosquito activity: dusk and dawn.

Mosquito proof your home by:

- At least once or twice a week, empty water from flower pots, pet food and water dishes, birdbaths, swimming pool covers, buckets, barrels, and cans.
- Check for clogged rain gutters and clean them out.
- Remove discarded tires, and other items that could collect water.
- Be sure to check for containers or trash in places that may be hard to see, such as under bushes or under your home.

We also encourage health care providers to remain vigilant as we enter the peak of our arbovirus transmission season. Diagnostic testing in humans will continue to be offered at the University of Iowa Hygienic Laboratory (UHL). Indication for testing includes:

- Encephalitis cases of unknown etiology.
- Patients with flaccid paralysis, myelitis or neurological symptoms following a febrile illness.
- Patients with onset of compatible illness within two weeks of receiving blood products.
- Pregnant or breast-feeding women with a compatible febrile illness and exposure history.
- Aseptic meningitis cases, although at this time of year, many such cases are caused by enteroviruses; CSF testing by PCR for enterovirus is recommended.
- Clinically compatible illness during transmission season. Providers should consider if there is any clinical value in testing patients with mild fevers of unknown origin in the absence of neurological signs.

UHL does NOT recommend testing of asymptomatic persons concerned about exposure or with mild uncomplicated febrile illness, or the screening of asymptomatic pregnant or breast-feeding women.

For more information, visit:

www.uhl.uiowa.edu/kitsquotesforms/clinicaltestmenu.pdf.

www.idph.state.ia.us/adper/common/pdf/flood/mosquito_checklist.pdf.

Pertussis outbreak reinforces need to vaccinate health care workers

A review of hospital-acquired pertussis outbreaks among infants at a children's hospital in 2004 emphasizes the need for health care facilities to follow the Advisory Committee on Immunization Practices (ACIP) recommendation that all health care workers (HCW) receive the diphtheria and tetanus toxoids and acellular pertussis vaccine, according to data from a report recently published in the Morbidity and Mortality Weekly Report.

Pertussis can be a serious disease in young children. Common complications in children younger than one year of age include seizures, pneumonia, and cardiovascular compromise. The case-fatality rate among newborns and infants aged younger than two months is 1.8 percent, according to the data.

In 2005, the ACIP issued vaccine guidelines recommending vaccination among HCWs, particularly those with direct patient contact with infants aged younger than 12 months. Widespread implementation of this recommendation can reduce the risk for future pertussis transmission in health care settings.

For more information visit:

www.cdc.gov/mmwr/preview/mmwrhtml/mm5722a2.htm

www.cdc.gov/mmwr/PDF/rr/rr5704.pdf

New ACIP recommendations on use of influenza vaccine in children

The Advisory Committee on Immunization Practices (ACIP) met in Atlanta June 25-26. They announced that there will be an expansion of children recommended for influenza vaccination during the 2008-2009 influenza seasons. Children five years of age through 18 years of age should be vaccinated, if feasible, against influenza beginning in 2008. Children six months of age to five years of age are already recommended for vaccination.

The six influenza manufacturers project about 150 million doses of vaccine will be available for the 2008-2009 influenza season. There will be an estimated 50 million doses of thimerosal- or preservative-free influenza vaccine available.

Meeting cancellation

The Fall EPI Updates for 2008 have been cancelled to enable CADE staff to deliver IDSS training. Details of IDSS training shall be released soon.

Have a safe, healthy and happy week!

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