

EPI Update for Friday, June 3, 2005
Center For Acute Disease Epidemiology
Iowa Department of Public Health

Items for this week's EPI Update include:

- **Hepatitis A False Positives**
- **West Nile Virus Surveillance**
- **Rabies Reminders**
- **Epizootology of Bovine Spongiform Encephalopathy in Canada**
- **Pocket Pets and LCMV infections**

Hepatitis A test is a poor “rule-out” method for asymptomatic patients

In the May 13, 2005, issue of the MMWR, the CDC discussed cases of positive test results for hepatitis A virus (HAV) in people whose illness was not consistent with the clinical description of the HAV case definition. Clinical points from the article are:

- Testing is **not appropriate** when patient has only abnormal serum alanine aminotransferase (ALT) concentrations. If clinical symptoms of HAV are present, in addition to elevated ALT concentrations, then testing for HAV is appropriate.
- Published guidelines for the workup of abnormal liver enzyme tests do not include testing for HAV.
- Testing for HAV **is appropriate** if a patient presents with symptoms of fever, malaise, anorexia, nausea, abdominal discomfort, and later in the course of infection, jaundice, AND/OR a patient has been exposed to settings where HAV transmission is suspected.
- As a reminder, patients meeting any of the above listed should be tested for IgM. Positive IgG results may indicate either previous infection or vaccination. Total Ig testing does not differentiate between current or past infection.

Positive results in the absence of typical symptoms might indicate asymptomatic acute infection, previous HAV infection with prolonged presence of anti-HAV, or a false positive test result.

This raises some key public health points:

- A suspected case of HAV cannot be confirmed in the absence of clinical symptoms.
- Prophylaxis of close contacts is not recommended when the suspected case has no clinical symptoms or no exposure to settings where HAV transmission is suspected.
- Careful review of suspected cases in follow-up investigations may prevent unnecessary prophylaxis of contacts and provide an opportunity to emphasize to health care professionals the appropriate guidelines for HAV testing.

The consequence of testing asymptomatic patients is a reduction in the positive predictive value of the laboratory test. [Click here for more information from CDC.](http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5418a1.htm)
<<http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5418a1.htm>>

West Nile Surveillance

West Nile Virus surveillance is in full swing. Sentinel chicken flocks and mosquito traps were placed at 13 sites across the state this week. Flocks and traps were placed in the counties of Sioux, Woodbury, Pottawattamie, Carroll, Polk, Story (mosquito traps only), Ringgold (new site in 2005), Cerro Gordo, Linn, Black Hawk, Wapello, Dubuque and Scott. The sentinel chickens will be bled weekly to test for the presence of West Nile virus and Saint Louis encephalitis. Mosquito traps will be used to monitor mosquito populations across the state. All 99 counties have a designated person to collect and submit dead birds for testing. The University Hygienic Laboratory will accept only crows and blue jays for testing, and county contacts may begin submitting dead birds at any time. Check out the Center for Acute Disease Epidemiology's West Nile virus Web site for surveillance maps, fact sheets - including answers to questions about dead birds-- and information for local public health, healthcare providers, and the general public <http://www.idph.state.ia.us/adper/wnv_surveillance.asp>. Also refer to the University Hygienic Laboratory for information on human and dead bird testing: <<http://www.uhl.uiowa.edu/services/diseases/mosquitoborne/wnv/index.html>>.

Rabies: AVOID VACCINATE EDUCATE CALL

Now that warm weather is here and people and pets are spending more time outdoors, the chances of an animal encounter have also increased. Here are some basic tips to prevent a possible rabies exposure and the need for rabies post-exposure treatment:

Avoid - Do not feed or approach wildlife on your property, at parks, or when walking in the woods or rural areas. When walking your dog, always keep it on a leash and under your control. Do not take any wild or stray animal home as a pet. Inspect your property and take appropriate measures to prevent wildlife from finding shelter or food sources on your premises.

Vaccinate - Consult your veterinarian and have valuable livestock, horses, and companion animals (i.e. dogs and cats) vaccinated against rabies and keep their rabies vaccination current. Every year there are more cats infected with rabies than dogs in the U.S.

Educate - Teach yourself and your children how to avoid being bitten by an animal. Stay away from wildlife and don't attempt to pet stray dogs or cats or dogs or cats that are not familiar to you. Do not attempt to help injured animals. Contact your local animal control agency to report strays or injured animals. Children should inform their parents if they are scratched or bitten by any animal. Animal control officers or other appropriate authorities should capture wildlife and perform humane euthanasia and submission for rabies testing. If a person is bitten by companion animals that are outwardly normal, whether vaccinated or not, they can usually be quarantined for 10 days by their owner, or when warranted, at an animal control facility or veterinarian's clinic / hospital. Healthcare providers should know which local agency is responsible for animal bite follow-up in its jurisdiction.

Call - Notify your healthcare provider if you are bitten by an animal. IDPH is available 24 / 7 for consultation for rabies exposure assessment and post-exposure treatment recommendations. During normal business hours, contact Dr. Susan L. Brockus, State

Public Health Veterinarian, at 515-281-4933; after business hours, weekends, and holidays call 800-362-2736 for referral to the on-duty officer.

Information on rabies is also available on IDPH's website in the Epi Manual at: http://www.idph.state.ia.us/adper/cade_content/epi_manual/rabies.pdf. Rabies exposure assessment flow charts are available at: http://www.idph.state.ia.us/adper/common/pdf/rabies_exposure_all_animals.pdf and http://www.idph.state.ia.us/adper/common/pdf/rabies_exposure_bats.pdf. Printed copies of the flow charts are available through the state clearinghouse at 888-398-9696. Additionally, the CDC has a Web site on rabies available at: <http://www.cdc.gov/ncidod/dvrd/rabies/>.

USDA Report on possibility of exposure to Canadian cattle with BSE.

The USDA has issued a report and summary report on investigation of the four dairy cows identified with bovine spongiform encephalopathy (BSE) from May 2003 to January 2005. BSE is caused by infection with a prion, a misfolded protein that attacks neurons and causes a fatal neurologic disease. The investigation suggests that the infected cattle may have had a common exposure; probably through feed manufactured prior to a ban on including meat and bone meal in animal feed. USDA investigators also concluded that it is extremely unlikely that any materials from the presumed source of exposure were incorporated into feed for cattle in the United States. Eating brain or neural tissue from infected cattle is believed to have led to the outbreak of variant Creutzfeldt Jacob disease, a devastating fatal neurologic disease in the United Kingdom in the 1990's. Other prion diseases in animals include chronic wasting disease in elk and deer and scrapie in sheep. A summary of the report is available at the USDA Web site http://www.aphis.usda.gov/lpa/news/2005/04/bseepisum_vs.html.

LCMV infections in organ transplant recipients related to pocket pets

Infections from pocket pets such as hamsters are again in the news following a report in the MMWR of severe illness due to infection with lymphocytic choriomeningitis virus (LCMV) in four transplant recipients who had received organs from a woman who died of a stroke. The patients suffered from dysfunction of the donor organ as well as abnormalities of liver function and blood coagulation. Three of the four patients died. The donor was apparently asymptomatic of the infection at the time of death. Investigation of the donor's family showed that a pet hamster was infected with LCMV.

Infection in humans is usually associated with exposure to the house mouse, but outbreaks have also been associated with hamsters. Illness is usually mild, and the infection does not spread person to person except for transmission from infected mother to the fetus. In this case cluster, the severity of illness was probably related to immunosuppression of the transplant recipients. People can minimize their risk of infection by being attentive to proper handwashing following handling pets and cleaning cages - just one more good reason to wash your hands! Further information on LCMV is available at <http://www.cdc.gov/ncidod/dvrd/spb/mnpages/dispages/lcmv.htm>;

information on handling pet rodents can be found at
http://www.cdc.gov/healthypets/animals/pocket_pets.htm.