Idaho Disease

BULLETIN

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Idaho Reports its First Human Case of West Nile Fever

It sounds like a scenario from the "Far Side": our first human case of West Nile virus (WNV) infection in Idaho did not appear to come from the bite of an infected mosquito, but more likely from contact with the blood of infected, imported alligators!

A southern Idaho resident in his 40s reported having a very mild febrile illness in October and had a significant IgM titer against WNV. His infection is believed to have occurred after carrying out necropsies on alligators that were subsequently determined to have died from WNV. He did not consistently wear gloves and may have acquired the infection directly during the necropsy process. He did not report any cuts acquired during the procedure, but small breaks in the skin may have been sufficient for viral entry. He reports full recovery from the infection. Other alligator farm workers who performed routine husbandry practices, such as feeding and cleaning pools, have not developed WNV-specific antibodies to date.

Alligators bring West Nile Virus into Idaho

In September, an aquaculturist legally imported hatchling alligators from Florida into Idaho. The goal was to rear them for leather and meat. Approximately 40% of the shipment died within three weeks of importation, which is considered an unusually high loss. The Louisiana State University School of Veterinary Medicine initially diagnosed WNV in the alligators. This finding was confirmed by the Idaho State Bureau of Laboratories (ISBL). WNV exists in Florida, but WNV had not been previously detected within Idaho, suggesting that the disease was first introduced into Idaho by the importation of these reptiles. The farmer had the remaining shipment humanely destroyed and the building disinfected.

Routine mosquito surveillance efforts for WNV within 10 miles of the farm had been carried out from June through late September. No WNV had been detected. Directed efforts to trap mosquitoes around the alligator farm after the diagnosis had been made in the alligators proved fruitless, as a cold spell had eliminated mosquitoes in the area and none were caught in the trap. Enhanced surveillance efforts will take place in the vicinity next spring.

A scant amount is known about alligators and WNV. Mosquitoes do bite alligators, and it is known that infected alligators can develop a detectable viremia and shed virus in their feces. There is a theoretical risk of infection for alligator handlers during the processing of carcasses due to the probability of exposure to infected feces and tissues; therefore, individuals dealing with alligators are encouraged to wear protective clothing (gloves, masks, eye protection) to avoid exposure to blood and fecal material.

West Nile Virus in 2003

As of 11/19/2003, the Centers for Disease Control and Prevention reported 8470 cases of West Nile infection nationwide and 189 deaths. This is almost twice the reported case count from 2002 (4156), but fewer fatalities (284). The increase in reported cases may reflect inclusion of milder illness in 2003. Although mosquito season is effectively over in most states due to cold weather, case reports will likely continue to enter the CDC database for a little while longer due to ongoing case detection in states with milder temperatures and to delays in reporting. Human and animal cases of WNV, as of 11/19/03, are shown on the map provided by CDC.

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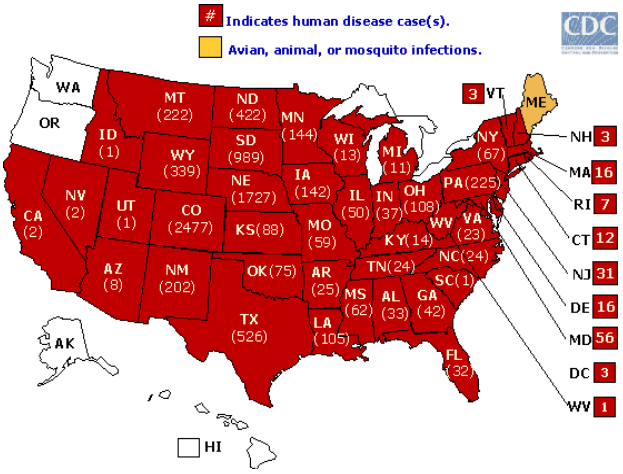

Surveillance for WNV in humans, horses, birds, and mosquitoes in Idaho, 2003

Dead bird reporting and testing has proven to be the most informative surveillance tool in other states experiencing WNV. Corvids (crows, ravens, jays, magpies) and raptors were often the first to die when the virus entered an ecosystem. Seventy-one dead birds were tested by the ISBL. None of the tested birds were positive for WNV.

The ISBL tested 90 suspect human cases. Three individuals were positive for IgM antibody against WNV. Two had traveled to Colorado, where WNV is already known to exist, and a third infection was detected in the alligator handler discussed above.

With the aid of an entomologist, approximately 24,275 mosquitoes, collected from around the state between April and September, were separated into pools by species. The 1448 pools of mosquitoes were then tested at the ISBL and all were found to be free of WNV, western equine encephalomyelitis virus and St. Louis encephalitis virus.

The Idaho State Department of Agriculture encouraged WNV testing in horses with a clinically compatible illness. Forty-three horses tested negative and one horse tested positive. The positive horse had acquired the infection while traveling to a state already experiencing WNV.

Updated Reportable Diseases List

It is official: SARS and WNV infections are reportable in the state of Idaho since the passage of a temporary rule which we hope will become permanent after legislative review next year. Reporting of these conditions is in effect immediately. In the 2003 legislative session, smallpox and certain metabolic conditions were also officially added to the reportable disease list. Please review your reportable diseases list on-line for the most recent list (dated 11/2003) or contact your district health department for more information. The updated reportable diseases list can be found at http://www.idahohealth.org/

Syphilis Outbreak Prompts Call for Increased Testing

The Idaho Department of Health & Welfare, Office of Epidemiology & Food Protection has observed a dramatic increase in reported cases of early syphilis in Idaho. Since June 2002, 27 cases of early syphilis have been diagnosed and reported. By comparison, a total of 3 cases of early syphilis were diagnosed for the years 2000 and 2001. Most have been diagnosed by health care providers in Idaho's southwest, central, and southern regions, with the greatest number in Idaho's southwest region.

Cases have been young (median age of 23 years, range 14y-53y), disproportionately of Latino/Hispanic ethnicity (n=16/27, 59%), and of similar numbers by sex (14 male, 13 female).

Syphilis is a complex disease that can be difficult to diagnose. Primary syphilis produces ulcers (avg. 3 wks duration) of the genitalia, pharynx, or rectum. This ulcer (chancre) is typically 1-2 cm in diameter, painless, with an indurated margin and clear base. Modest enlargement of inguinal lymph nodes is observed in the majority of patients who have genital lesions.

Following the resolution of the primary lesion, systemic infection develops, characterized by a variety of symptoms, which may include malaise, low-grade fever, generalized lymphadenopathy, a generalized rash with lesions on the palms and soles (avg. 4 wks duration), mucous patches in the oral or genital tract, condylomata lata (wartlike lesions) in moist intertriginous regions, and alopecia. Some patients experience mild symptoms or no symptoms.

The disease then evolves into a latent phase in which syphilis is clinically inapparent. Pregnant women may transmit the infection in utero. The absence of exposed mucosal or genital lesions usually precludes sexual transmission. If left untreated, as many as one third of patients may

progress with potentially severe late gummatous, cardiovascular, and neurologic complications.

We recommend that clinicians in central, south, and southwest Idaho screen for syphilis in sexually active patients with new sex partners in the past year, high-risk pregnant women at both the first and third trimester or at delivery when no prenatal care has been sought, and/or when clinically compatible symptoms are observed. Syphilis should be ruled out as a cause for genital ulcerations if observed.

Treatment recommendations are available at http://www.cdc.gov/STD/treatment/2-2002TG.htm#Syphilis.

Please report all suspected cases to your local health district or directly to us. Contact your local health district for more resources regarding syphilis testing, treatment, and preventive measures.

New Criteria for Pertussis Testing at the Idaho State Bureau of Laboratories

The Idaho State Bureau of Laboratories (ISBL), the Idaho Office of Epidemiology and Food Protection, and Idaho Health Districts have worked together over the last several months to develop pertussis testing criteria that are epidemiologically sound and will meet public health needs without overwhelming our public health system. The ISBL will provide free initial laboratory testing of individuals who are suspected of having the first case of pertussis in a defined setting (*e.g.*, a household or classroom). In addition, laboratory testing of individuals who are at high risk or in high–risk settings will be provided as part of the public health response to this highly communicable disease. The ISBL does not have the resources to test all potentially exposed individuals. Such testing may lead to a false sense of security in exposed individuals. Antibiotic prophylaxis is recommended for all close contacts of confirmed or probable case–patients regardless of test results. Testing of asymptomatic individuals as a condition of work or school attendance is neither a CDC recommendation nor scientifically sound, and therefore cannot be supported by the ISBL.
Clinical samples from persons who do not meet the criteria for pertussis testing at the ISBL may be sent to commercial laboratories for testing.

To help health care providers ensure that a clinical sample for pertussis testing meets the criteria for free testing at the ISBL, **all requests for free pertussis testing at the ISBL must be approved by a district health department epidemiologist prior to submission. Samples which are submitted without the approval of the district health department will be processed and the submitter charged at commercial rates.**

Persons for whom testing will be performed at the ISBL at **no charge**:

- Suspect pertussis case who is not a close contact of a laboratory–confirmed case.
- Suspect pertussis case with history of exposure to a laboratory–confirmed case, but for whom antibiotic prophylaxis has not been recommended.
- Suspect pertussis case or catarrh in persons at high risk or those who are in high–risk settings**, and** history of close contact with a probable or laboratory–confirmed case of pertussis.
- Suspect pertussis case or catarrh in person with history of close contact with a probable or laboratory–confirmed case and who is the first such person in a daycare or elementary school classroom.

Persons for whom free testing will NOT be done at the ISBL:

- Persons currently on antibiotic prophylaxis or therapy for pertussis
- Persons for whom antibiotic prophylaxis has been recommended as a result of exposure to a confirmed case of pertussis.
- Close contacts of a confirmed pertussis case-patient and who are not high-risk or in a high-risk setting
- Symptomatic persons who do not meet the suspect pertussis case criteria and are not at high risk.
- Asymptomatic persons.

Please contact your district health epidemiologist if you are interested in having free pertussis testing performed at the ISBL, or if you have any questions about either the terminology used above or the testing criteria in general.

Name Change

Please note that the Office of Epidemiology has merged with the Food Protection Program, and is now known as the Office of Epidemiology and Food Protection.

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