2015 DOHMH Alert 14: West Nile Virus

June 30, 2015

Please distribute to staff in the Departments of Internal Medicine, Pediatrics, Family Medicine, Neurology, Infection Control, Infectious Disease, Emergency Medicine, Critical Care, Obstetrics and Gynecology, Oncology and Laboratory Medicine

- West Nile virus has been identified for the first time this season in mosquito pools from Queens and Staten Island.
  - Mosquito season in New York City (NYC) usually peaks in July.
  - To date, no human cases have been reported in NYC this year.
- West Nile viral disease should be suspected in patients presenting with viral meningitis or encephalitis, acute flaccid paralysis, and/or symptoms compatible with West Nile fever, particularly from July 1 - October 31.
- The most sensitive screening test for West Nile virus in humans is IgM enzyme immunoassay (EIA) on cerebrospinal fluid and/or serum. Testing is widely available at commercial laboratories. RT-PCR testing, while confirmatory, is less sensitive.
- Report all cases of encephalitis or any laboratory evidence of current or recent infection with West Nile virus or other arboviral infection to the Health Department.

Dear Colleagues,

West Nile virus has been detected in positive mosquito pools collected from the Glen Oaks area of Queens and the New Dorp Beach area of Staten Island. No human cases have been reported in NYC so far this year. You can monitor whether the virus is present in your part of the city at http://www.nyc.gov/html/doh/html/environmental/wnv-activity.shtml.

The Health Department reminds medical providers to be alert for possible cases of West Nile viral disease from July 1 through October 31, the peak adult mosquito season. Consider West Nile viral disease in any patient with unexplained encephalitis, viral meningitis, or acute flaccid paralysis and in patients with symptoms compatible with West Nile fever.

Specimens for serologic testing for West Nile virus should be sent to a commercial laboratory or at your hospital laboratory, if available. The most sensitive screening test for West Nile virus in humans is IgM enzyme immunoassay (EIA) on cerebrospinal fluid (CSF) and/or serum, which is commercially available. WNV-specific IgM antibodies are usually detectable within 8 days of symptom onset. Viral RNA testing using reverse transcriptase-polymerase chain reaction (RT-PCR) can be done on CSF and serum. It is less sensitive than the immunoassay, but positive results confirm infection. Health care providers wishing to submit CSF from patients with encephalitis to Wadsworth Center for the viral encephalitis PCR panel must adhere to the submission guidelines, which are available online (links listed below). In special cases, the Health Department can assist with testing or transporting specimens.
to Wadsworth, e.g., cases potentially due to an unusual source of transmission, such as transfusion, transplant or laboratory exposure.

Encephalitis should be reported routinely throughout the year, as required by law. Arboviral infections, including West Nile virus, with laboratory evidence of recent or current infection should be reported immediately, as required by law.

Updated “Guidelines for West Nile Virus Testing and Reporting Cases of Encephalitis and Viral Meningitis, West Nile and other Arboviral Infections” are attached and also available online at: http://www.nyc.gov/html/doh/html/environmental/wnv-provider.shtml. This document includes a list of commercial laboratories that provide West Nile virus serologic testing, viral PCR or viral isolation testing, and links to the Wadsworth Center guidance for submitting CSF for the viral encephalitis PCR panel.

Viral Encephalitis PCR Panel testing at Wadsworth Center’s Viral Encephalitis Laboratory (VEL) Instructions, forms and information for submitting specimens to the Wadsworth Center VEL for viral encephalitis PCR testing can be found at: http://www.wadsworth.org/divisions/infdis/enceph/form.htm:
   1. Collection and Submission of Specimens for Viral Encephalitis Testing Instructions (June 2010)
   2. Infectious Diseases Requisition Form
   3. The Wadsworth Center VEL shipping address for viral PCR panel specimens

For consultation or to report a case to the NYC Health Department
   • Call 866-692-3641 OR
   • Fax the completed Universal Reporting Form to 347-396-2632 OR

The successful detection and control of West Nile virus in NYC has been due in large part to our ongoing excellent partnership with the city’s medical and laboratory communities. Thank you for your continuing efforts.

Dengue and Chikungunya
Dengue and chikungunya are two other types of arboviruses that are commonly diagnosed among NYC residents. These viruses are associated with travel to an endemic area, as there has been no recognized local transmission in NYC. For information on recognizing, diagnosing and reporting these diseases, visit our website at www.nyc.gov/health and search by disease.

Sincerely,

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