



NEW YORK CITY DEPARTMENT OF
HEALTH AND MENTAL HYGIENE
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Commissioner

2010 DOHMH Advisory 11: West Nile Virus Alert Mosquitoes Test Positive in Bronx, Brooklyn, Queens and Staten Island July 16, 2010

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

Peak mosquito season in New York City (NYC) has begun. Clinicians should maintain a high index of suspicion for West Nile (WN) virus neuroinvasive disease in patients with aseptic meningitis, encephalitis or acute flaccid paralysis, especially in persons over age 50 or who are immunosuppressed, as these individuals are at higher risk for WN neuroinvasive disease.

- **Since June 29th, WN virus has been identified in 34 mosquito pools collected in all boroughs except Manhattan:**
 - **Bronx - 13 pools from the neighborhoods of Pelham Bay, Throgs Neck, Schuylerville, Clason Point, Spencer Estates, Morris Park and Castle Hills**
 - **Brooklyn - 1 pool from East Williamsburg**
 - **Queens - 14 pools from the neighborhoods of South Jamaica, Rochdale Village, Auburndale and Pomonok, and**
 - **Staten Island – 6 pools from the neighborhoods of Old Town, Greenridge and Port Richmond.**
- **The NYC Department of Health and Mental Hygiene (DOHMH) will conduct adult mosquito control in affected areas of Queens, Staten Island and the Bronx to reduce mosquito populations on July 20th and 22nd.**
- **Mosquito pools from New Jersey, Connecticut and Suffolk County, New York have also tested positive for WN virus this season.**
- **Visit the NYC DOHMH website for more information and updates on WN virus activity in NYC at www.nyc.gov/health/wnv.**
- **Providers should advise their patients, especially adults over 50, to protect themselves from mosquito bites when going outdoors in the evenings by using approved mosquito repellents.**
- **REMINDER: the DOHMH Public Health Laboratory is no longer accepting specimens for WN virus testing or forwarding specimens to Wadsworth. Providers are encouraged to submit specimens to commercial labs.**

Dear Colleagues,

West Nile (WN) virus season has begun in NYC with the detection of WN virus in 34 mosquito pools collected in all NYC boroughs with the exception of Manhattan. This is the largest number of positive pools identified in NYC this early in the season since the introduction of WN virus into NYC in 1999.

The New York City Department of Health and Mental Hygiene (DOHMH) reminds medical providers to be alert for possible cases of WN viral disease during the peak adult mosquito season, from July 1 through October 31. The DOHMH encourages clinicians to request WN viral testing for any suspected case of WN viral illness, which includes patients with unexplained encephalitis, viral meningitis, acute flaccid paralysis, and/or patients with symptoms compatible with WN fever.

Send specimens for serologic and/or PCR testing for WN virus to a commercial laboratory for all patients with suspected WN neuroinvasive disease (WNND). As described in 2010 DOHMH Advisory #8, the DOHMH no longer provides routine human WN virus serologic testing or packaging and forwarding of cerebrospinal fluid (CSF) to the New York State Department of Health David Axelrod Institute Laboratories at the Wadsworth Center Viral Encephalitis Laboratory for polymerase chain reaction (PCR) panel testing. Those facilities that wish to submit specimens to the Wadsworth Center must ship specimens directly and in accordance with submission criteria and the required shipping and packaging requirements.

Detailed guidelines for testing and reporting WN virus are available on line (See below for URL). Any patient with laboratory evidence suggesting a current or recent WN virus infection must be reported immediately to DOHMH. To report,

- During business hours:
 - Call the Bureau of Communicable Disease (BCD) at 212-788-9830, or
 - Fax a completed *Universal Reporting Form* (URF) to BCD at 212-788-4268, or
 - Submit the URF electronically (downloadable form or instructions to set up online reporting at <http://www.nyc.gov/html/doh/html/hcp/hcp-urf.shtml>)
- After hours, call the NYC Poison Control Center at 1-800-222-1222 or 1-212-POISONS.

WN virus, while most commonly transmitted via mosquito bite, can also be transmitted via transfusion or transplantation. Occupational transmission, perinatal transmission and transmission via breast milk have also been reported. It is particularly important to consider WN virus in any patient with febrile neurologic disease who is immunocompromised, or who has recently either donated or received blood products, tissues or organs. **Please call DOHMH immediately to report any suspected cases of transfusion or transplant-associated WN virus, or suspected WN virus infection in pregnant women, neonates or persons with occupational exposures.**

Although there is currently no specific therapy proven to be effective for treating WNND, one clinical trial is currently underway - a randomized, placebo controlled trial of alpha interferon therapy. Descriptions of the study protocol and contact information for the investigator are available at <http://www.nyhg.org/oth/Page.asp?PageID=OTH000157>. Patients must be enrolled within five days of hospital admission. Providers interested in enrolling patients in this study should report the case to DOHMH and also contact the lead investigator. If a patient reported to DOHMH appears to meet the eligibility requirements for the trial, we will provide more information and assist with referring the patient to the study investigator.

NYC DOHMH Arthropod-Borne Disease Surveillance and Control Program

Since 2000, DOHMH has conducted comprehensive arthropod-borne disease surveillance and control. In 2010, efforts will again focus on mosquito control through reduction of breeding sites and application of larvicides. In addition, comprehensive mosquito, avian and human data collected during the 2000-2009 seasons have allowed DOHMH to develop criteria for identifying areas at risk for human transmission. If there is a threat of an outbreak of human illness and spraying is deemed necessary, targeted adult mosquito control measures (via ground spraying of pesticides) may be required. Should this occur, the spraying schedule and information on the pesticides that will be used will be provided to physicians, other health care providers, and the public. Thorough environmental review and epidemiologic analyses conducted subsequent to pesticide applications have shown that the public in general is not expected to experience adverse reactions given the low level of exposure that may occur during the pesticide application. Some individuals, however, may be particularly sensitive to ingredients in the pesticides. Such individuals could experience transient effects, such as skin, eye and mucous membrane irritation, as well as exacerbation of chronic conditions such as asthma or other respiratory conditions. The NYC DOHMH generally advises persons to stay indoors during the targeted aerial spraying of pesticides.

To reduce mosquito activity and the risk of WN virus in the currently affected areas, the DOHMH will spray pesticide from trucks between the hours of 8:30 PM and 6:00 AM in several neighborhoods in Queens and Staten Island on Tuesday July 20th, and the Bronx on Thursday, July 22nd, weather permitting. In case of bad weather, spraying will be delayed. A schedule of mosquito control activities is available at nyc.gov/health or by calling 311.

We encourage physicians to seek consultation with the New York City Poison Control Center (NYC PCC) if they suspect a patient may have pesticide poisoning. A confirmed or suspected pesticide poisoning is reportable under the provisions of the New York City Health Code and the New York State Sanitary Code. **Providers must report such poisonings to the NYC PCC at 212-764-7667 (212-POISONS) or 1-800-222-1222 and to the New York State Department of Health, Pesticide Poisoning Registry (800)-322-6850.**

Prevention of Mosquito Bites in High Risk Patients:

Providers should advise their patients, especially adults over 50, to protect themselves from mosquito bites. Currently, four types of repellents known to be effective are available for sale in New York. These include (1) DEET or N,N-diethyl-m-toluamide, (2) Oil of Lemon Eucalyptus (p-menthane 3,8-diol), (3) Picaridin, and (4) IR 3535. Always read the repellent label and follow instructions for use. EPA characterizes the active ingredients DEET and Picaridin as “conventional repellents” and Oil of Lemon Eucalyptus (or PMD), and IR3535 as “biopesticide repellents”, which are derived from natural materials. Products containing Oil of Lemon Eucalyptus should not be used on children younger than three years of age. For more information on repellent active ingredients see (http://www.epa.gov/pesticides/health/mosquitoes/ai_insectrp.htm).

As always, we appreciate our ongoing partnership with health care providers in NYC in reporting and investigating unusual disease manifestations or clusters. The successful detection and control of WN virus in NYC has been due in large part to the excellent communication and cooperation of the city’s medical and laboratory communities. Thank you for your continuing efforts,

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On Line Resources:

1. DOHMH West Nile Virus Guidelines and Recommendations for Health Care Providers, including recent Health Alerts (available at <http://www.nyc.gov/html/doh/html/wnv/wnvhcp.shtml>)
2. Universal Reporting Form (September 2009 version) (download from <http://www.nyc.gov/html/doh/html/hcp/hcp-urf.shtml>)
3. New York State Department of Health - Collection and Submission of Specimens for Viral Encephalitis Testing Instructions (June 2010 version) (available for download from <http://www.wadsworth.org/divisions/infdis/enceph/form.htm>)
4. New York State Infectious Diseases Requisition Form (on-line fillable form also available from <http://www.wadsworth.org/divisions/infdis/enceph/form.htm>)
5. New York State Viral Encephalitis/Meningitis Case Report Form (on-line fillable form also available from <http://www.wadsworth.org/divisions/infdis/enceph/form.htm>)