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County Executive

Joshua Lipsman, M.D., M.P.H.
Commissioner, Department of Health

ATTENTION

Public Health

Update

The Westchester County Department of Health provides public health updates to members of the medical community on important issues affecting public health in Westchester

Please refer to the **Physician's Corner** page on the Westchester County Health Department web site, www.westchestergov.com/health, for additional information, including materials for patient education.

June 27, 2002

WEST NILE VIRUS UPDATE FOR THE 2002 SEASON:

REPORTING AND TESTING OF SUSPECTED CASES OF WEST NILE VIRUS INFECTION

- 1. The Westchester County Department of Health is starting enhanced surveillance for West Nile virus infection for the 2002 season. Please report immediately by telephone to the Westchester County Department of Health any adult or pediatric patient with suspected viral encephalitis.**
- 2. Dead birds infected with West Nile virus have not yet been found in Westchester this season, but have been found in New York State (Rockland, Albany and Nassau Counties), New Jersey, Connecticut, Washington D.C., and 10 other states.**
- 3. One mosquito pool collected in Monmouth County, New Jersey, has tested positive for West Nile virus this season.**

PLEASE DISTRIBUTE TO INTERNAL MEDICINE, FAMILY PRACTICE, PRIMARY CARE AND PEDIATRIC STAFF, EMERGENCY ROOM, INFECTIOUS DISEASE, NEUROLOGY, INTENSIVE CARE UNIT AND AMBULATORY CARE STAFF

Dear Infection Control Practitioners, Infectious Disease Physicians, Emergency Department Directors, Medical Directors, and Laboratory Directors:

The emergence of West Nile virus (WNV) in 1999 in the New York City metropolitan area was followed in the year 2000 by the spread of the virus throughout New York State and much of the northeastern United States. During 2001, the virus was detected as far west as Arkansas, with dead birds testing positive for WNV in 27 states. In addition, several hundred horses and mosquito pools tested positive for the virus. Although no human cases were detected in Westchester County in 2000 or 2001, during 2001, 33 cases were reported from the tri-state (NY,NJ,CT) area and nationwide, 66 cases were reported from 10 states in 2001; (for more information, see MMWR 2002;51:497-501).

This season, dead birds have tested positive for WNV in Rockland, Albany and Nassau counties (NY); Bergen, Monmouth, and Morris counties (NJ); and New Haven, CT. Positive birds have also been detected in the District of Columbia, Florida, Georgia, Illinois, Louisiana, Massachusetts, Michigan, Ohio, Pennsylvania, Tennessee, and Virginia. New Jersey recently announced that a mosquito pool collected on May 22 in Monmouth County has tested positive for WNV. Now that WNV has established itself in temperate North America and with recent evidence of WNV activity in areas near Westchester County, health care providers, laboratorians, and public health practitioners must continue to be vigilant for suspected human cases during the summer months.

The Westchester County Department of Health (WCDH) and the New York State Department of Health (NYSDOH) are enhancing surveillance activities for suspected WNV infections to facilitate the prompt recognition of a human outbreak. A critical component of this effort is the rapid detection and timely reporting of cases of viral encephalitis from June through October.

Reporting cases of viral encephalitis:

To ensure the rapid identification of human WNV infection should it recur this year, we are requesting that providers **report immediately** by telephone to the Westchester County Department of Health any adult or pediatric patient with suspected viral encephalitis as defined below:

- a. Fever $\geq 38^{\circ}\text{C}$ or 100°F , and
- b. Altered mental status (altered level of consciousness, agitation, lethargy) and/or other evidence of cortical involvement (e.g., focal neurologic findings, seizures), and
- c. CSF pleocytosis with predominant lymphocytes and/or elevated protein and a negative gram stain and culture, with or without
- d. Muscle weakness (especially flaccid paralysis) confirmed by neurologic exam or EMG.

A NYSDOH Viral Encephalitis/Meningitis Case Report Form is attached. This form should be completed for each suspect case and faxed to the WCDH at (914) 813-5182. A copy of the form should also be submitted with the laboratory specimens.

TO REPORT A SUSPECT CASE AND ARRANGE FOR TESTING, CALL THE WESTCHESTER COUNTY DEPARTMENT OF HEALTH AT:

(914) 813-5159
(914) 813-5000

Mon-Fri 8:30 AM - 4:30 PM
24 hours/day; 7 days/week

Testing for viral encephalitis, including West Nile virus:

The NYSDOH Laboratory, Wadsworth Center, offers diagnostic testing for a wide range of viruses, including West Nile virus, that have been associated with encephalitis. Appropriate specimens for testing include cerebrospinal fluid (CSF), acute and convalescent sera, and brain biopsy or autopsy material. If you have a patient that meets the above-mentioned clinical criteria for WNV testing, we will assist you in arranging testing at the Wadsworth Center. Instructions on the collection and submission of clinical specimens and the polymerase chain reaction (PCR) consent form are also enclosed.

Serologic testing for asymptomatic patients or those with mild symptoms, such as fever and headache, is not necessary. The likelihood of WNV infection in these patients is extremely low, especially in the absence of an outbreak. Also, since there is no specific treatment for WNV infections, patients with mild symptoms do not require specific diagnostic testing. Providers pressed for WNV testing by patients with milder symptoms should be aware that commercial serologic tests for WNV will be available this season. (Please note: these commercial tests are screening tests and any positive result will need to be confirmed at Wadsworth Center.) Mildly ill patients should be advised to seek medical attention if they develop more severe symptoms such as confusion, muscle weakness, severe headache, stiff neck or photophobia.

The 2002 WNV strategy includes:

Education: The Westchester County Department of Health will continue its broad and intensive public and provider education campaign about the critical role the public plays in eliminating potential mosquito breeding sites, and about risk factors for vector-borne diseases and ways to avoid exposure. The public education campaign is regarded as the cornerstone of the County's prevention strategy, and your help in disseminating information would be greatly appreciated. Please contact the WCDH website (<http://www.westchestergov.com/health/>) for information and materials or call 914-813-5000.

Monitoring: The reporting of dead birds, especially crows, will help us track WNV in Westchester. Reports of dead bird sightings, especially crows, from the public are requested and can be called into the West Nile Information Line (914-813-5609). Reports of dead birds may also be made via the WCDH web site (<http://www.westchestergov.com/healthforms/dbform.asp>). Birds reported by the public will not be collected for testing this year. Trapping and testing of mosquitoes at locations throughout the county will be done.

Control: WCDOH will be continuing efforts to control the mosquito population through:

- Elimination of mosquito-breeding sites: WCDH is working to control mosquitoes through an intensive effort to identify and evaluate areas of standing water and to eliminate mosquito-breeding sites. The public's help and participation in this step is especially critical in the elimination of standing water and container breeding sites for mosquitoes around the home and community.
- Larviciding: Beginning May 20th and continuing through the early fall, larvicides are being applied to public catch basins and in other locations as appropriate throughout the county.
- Adulticiding (killing of adult mosquitoes) will be considered only if an imminent threat to public health is identified.

The Westchester County Department of Health (WCDH) thanks the medical and laboratory communities for their continued collaboration in the investigation of communicable diseases.

Sincerely,

Amy S. Rosenberg

Amy S. Rosenberg, M.D.
Director, TB & Communicable Diseases

Ada J. Huang

Ada J. Huang, M.D.
Deputy Commissioner, Disease Control

PATIENT INFORMATION

Last name _____ First Name _____ MI _____ County _____
 Address _____ City _____ State _____ Zip Code _____
 Telephone (____)____-____ Date of Birth ____/____/____ Age _____ Occupation: _____
 Sex: Male Female Race: White Black Am Indian/Alaskan Asian Other
 Ethnicity: Hispanic Non-Hispanic Unknown Pregnant: Yes No Unknown

CLINICAL INFORMATION

Hospitalized? Yes No If yes, Hospital Name _____
 Street Address _____ City _____ State _____ Zip _____
 Medical record # _____ Date of admission ____/____/____ Date of discharge/transfer ____/____/____
Date of first symptoms ____/____/____ **Date of first neurologic symptoms** ____/____/____
 Current Diagnosis: encephalitis meningitis other diagnosis _____
 Fever (> 38°C or 100°F) Yes No Unknown Altered mental status Yes No Unknown
 Headache Yes No Unknown Stiff neck/Meningeal signs Yes No Unknown
 Seizures Yes No Unknown Muscle weakness Yes No Unknown
 Rash Yes No Unknown Muscle pain Yes No Unknown
 Other _____ **Outcome** Recovered Died Unknown
 If patient died, date of death ____/____/____ Autopsy performed Yes No Unknown

LABORATORY INFORMATION / TEST RESULTS

CSF (specify units) Date ____/____/____ Abnormal? Yes No Unknown
 Glu _____ Prot _____ RBC _____ WBC _____ Diff: Segs% _____ Lymphs% _____
 Gram stain _____ Bacterial Culture _____ Fungal / Parasitic tests _____
 Viral test results (Culture/ Serology / PCR) _____
 CBC (specify units) Date ____/____/____ WBC _____ Diff: Segs% _____ Lymphs% _____
 Bacterial Culture _____
 MRI Date ____/____/____ Result _____
 CT Date ____/____/____ Result _____
 EEG Date ____/____/____ Result _____
 EMG Date ____/____/____ Result _____

Antiviral Treatment Yes No Unknown If yes, list below. **Date started:**
 1. _____

Risk Factor Information: (during 1 month before onset)

Patient traveled: Outside country Outside New York State Outside county of residence
 Animal or arthropod contact? Yes No Unknown Specify: _____

REPORTING INDIVIDUAL (Please Print Clearly) Title (ICN, Resident, Attending) _____
 Last name _____ First name _____ Telephone (____)____-____
 Work address _____ City _____ State _____ Zip Code _____

SPECIMENS BEING SUBMITTED TO NYSDOH FOR TESTING Date Submitted ____/____/____
 CSF* Yes No If yes, date collected ____/____/____ If no, was a lumbar puncture performed? Yes No
 * If less than 1.0 ml of CSF is being submitted, please check preference: Viral encephalitis PCR panel* or West Nile antibody
 Serum Yes No If yes, date collected ____/____/____ Initial or Repeat Specimen
 Other Yes Please specify _____ Date collected ____/____/____

REQUESTING PROVIDER: Last name _____ First name _____
 Work address _____ City _____ State _____ Zip Code _____

SEND SPECIMENS TO: Encephalitis PCR Lab
 New York State Department of Health
 Griffin Laboratory
 Route 155
 Guilderland, NY 12084

PLEASE NOTE: SHIP CSF FROZEN ON DRY ICE

*PCR panel includes: WNV, SLE, EEE, California serogr, Cache Valley, Powassan, Enterovirus, HSV, VZV, CMV & EBV

Collection and Submission of Clinical Specimens for Encephalitis Testing, Including West Nile Virus

The New York State Department of Health (NYSDOH) Laboratory Wadsworth Center offers diagnostic testing for a variety of viral agents that cause encephalitis. Available tests include: 1) viral culture, 2) serological studies, and 3) polymerase chain reaction (PCR) assays. Actual tests performed will depend on the type of specimen submitted (i.e., cerebrospinal fluid, serum, brain tissue). Proper collection, storage, and packaging are essential in preserving the clinical specimens so that testing the samples can be carried out properly.

Due to limited laboratory testing capacity, West Nile virus testing is being prioritized for hospitalized patients who meet the clinical criteria for viral encephalitis or meningitis (see attached clinical criteria). If one of your patients meets the appropriate criteria, please take the following steps:

1. Call the county health department where the patient resides. Specimens should not be submitted for West Nile virus testing without first contacting the appropriate county health department. The county health department will determine whether testing at NYSDOH is necessary.

2. Complete the NYSDOH Viral Encephalitis/Meningitis Case Report Form and the Viral Encephalitis Letter of Agreement Form. (Because some of the PCR tests performed on CSF are done under an investigative permit, the requesting physician must submit the letter of agreement form.) Fax forms, once completed, to the county health department and submit copies with the laboratory specimens. It is critical that **date of onset** and **date of collection** are recorded on the *Viral Encephalitis/Meningitis Case Report Form*. Serologic results cannot be interpreted if the dates of onset and collection are not recorded.

3. Collect the specimens.

- **CSF: 2 tubes, 1-2 cc each** collected without any preservatives. This sample should be kept frozen on dry ice or in a -70° C freezer.
- **Sera: 5-10ml in a red- top tube.** All sera should be centrifuged, separated from the clot and red cells, and dispensed into another tube for shipping. The sample should be refrigerated or, if it will be sent with CSF, it should be frozen on dry ice.
- Make sure all specimens are labeled with patient's name, specimen type, and **date of collection**.

4. Keep the completed forms with the specimens. Wadsworth Center cannot process the specimens without complete paperwork. Incomplete forms will significantly delay sample processing.

5. Package and mail the specimens.

- If both CSF and serum are available, **ship together on dry ice.** Serum should be dispensed into cryotubes (rugged plastic polymer) that can withstand freezing and thawing.
- If only serum is available, the specimen does not need to be on dry ice. Serum samples can be shipped in a box with a cold pack.
- Mail specimens to:

**Dr. Cinnia Huang
New York State Department of Health
Griffin Laboratory
Route 155
Guilderland, NY 12084**

**NEW YORK STATE DEPARTMENT OF HEALTH (NYSDOH)
Viral Encephalitis Letter of Agreement for
Physician Ordered Testing by Polymerase Chain Reaction (PCR)**

NYSDOH's Wadsworth Center offers the following tests on CSF for viral encephalitis:

1. PCR testing for a panel of viruses, including: herpes simplex, varicella zoster, cytomegalovirus, Epstein-Barr virus, enteroviruses, St. Louis encephalitis (SLE), eastern equine encephalitis (EEE), California encephalitis (including LaCrosse and Jamestown Canyon viruses), Powassan and West Nile virus (WNV), and
2. Enzyme-linked immunoassay (ELISA) for WNV.

If there is **insufficient quantity of CSF (less than 1.0 ml) to conduct both ELISA and PCR for WNV**, please consider the following in determining which test is most appropriate for your patient:

1. ELISA is more sensitive than PCR for WNV testing and should be considered when there is stronger suspicion of WNV than other viruses.
2. PCR is less sensitive for WNV, but tests for a wide range of viruses. PCR should be considered if viruses other than WNV are suspected.

Please note your testing priority below or on the viral encephalitis/meningitis case report form. If PCR testing is desired, the agreement below must be completed.

~Viral Encephalitis PCR Panel

~ West Nile Virus ELISA Antibody Testing

Patient Name: _____

As a licensed physician, I acknowledge the following requirements for the use of the viral encephalitis PCR Assay results from your laboratory:

1. I am responsible to insure that the encephalitis PCR Assay results will be reported to me or someone under my supervision.
2. I am responsible to insure that the test results will be used solely as an adjunct to a diagnosis based on the complete clinical presentation and other test results.
3. I am responsible to insure that before the specimens are drawn, each patient or their guardian is counseled that these test results are for investigational use and will not be the sole basis of diagnosis.
4. I am responsible to insure that the specimen collection is done in accordance with applicable laws and regulations concerning informed consent and confidentiality.

Date: _____

Name: _____, M.D./D.O. License No. _____
(printed)

Name: _____ Phone No. (____) _____
(signature)

Address: _____

Please FAX this completed and signed form to: (518) 869-6487.
Virology (Dr. Cinnia Huang, Encephalitis PCR)
New York State Dept. of Health, Griffin Laboratory
Route 155
Guilderland, NY 12084

NYSDOH 02/01