



Philadelphia Department of Public Health
Division of Disease Control

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Health Advisory

West Nile Virus Testing and Reporting Requirements for the 2013 Season August 2, 2013

The Philadelphia Department of Public Health (PDPH) recently identified the City's first mosquitoes infected with West Nile Virus (WNV) this year. The mosquito pool was collected in the Olde Kensington section of the City. No human cases have been reported from Philadelphia or Pennsylvania yet in 2013. However, given the detection of WNV-positive mosquitoes in Southeastern Pennsylvania, risk for human infection is present.

Beginning now through the end of October, PDPH urges clinicians to collect both serum and cerebrospinal fluid (CSF) for WNV testing from patients who have onset of unexplained encephalitis or meningitis. Laboratory testing is necessary to confirm infection. Although less than 1% of infected individuals will develop WNV neuroinvasive disease—aseptic meningitis, encephalitis, or flaccid paralysis, severe illness may result in residual neurological deficits or death. The risk of neuroinvasive disease increases with age, and is highest among adults > 50 years old and among organ transplant patients.

All suspected cases of WNV infection (neuroinvasive and non-neuroinvasive disease) as well as encephalitis cases should be reported immediately to PDPH Division of Disease Control (DDC) at 215-685-6740 during regular business hours or 215-686-4514 after-hours (ask to speak with the DDC on-call representative). **Your assistance with WNV testing and immediate reporting of suspected cases enables us to direct additional mosquito-control efforts and accurately monitor severe WNV illness in Philadelphia.**

Laboratory Diagnosis of WNV Infection:

WNV infection can be confirmed by one or more of the following laboratory results:

- WNV-specific IgM in serum or CSF is preferred for laboratory confirmation. Consider the specimen type and timing of collection when ordering WNV-specific IgM testing.
 - Serum: Collect 8 to 14 days after illness onset. Draw and test additional serum if collected too early.
 - CSF: Collect within 8 days of illness onset.
- Polymerase Chain Reaction (PCR) or viral culture identification of WNV in CSF
- Four-fold rise in WNV-specific IgG in paired sera. Collect acute serum on day 0 to 8 of illness and convalescent serum 14 to 21 days later.

PCR testing or culture of CSF for other viral causes of neuroinvasive disease (i.e., herpes simplex virus, enterovirus, etc) should also be considered.

Many commercial laboratories offer serologic or PCR testing for WNV. Any positive specimen from a commercial laboratory should be forwarded to the Pennsylvania Department of Health Bureau of Laboratories (PADOH BOL) for confirmatory testing using standard methods developed by the CDC. DDC can provide consultation for testing and help facilitate specimen submission to PADOH BOL.

Treatment and Prevention:

There is no treatment for WNV other than supportive therapy. To decrease the risk for WNV and other mosquito-borne infections, encourage your patients to use repellent containing either DEET, Picaridin, or oil of lemon eucalyptus when outdoors, especially at dusk. Also, advise patients to regularly check and remove standing water outside their home (e.g., unused swimming pools, tires) to reduce mosquito-breeding sites. Throughout the City, the PDPH Vector Control Program has initiated mosquito control activities (larviciding, ground spraying, etc.) for the 2013 season and will continue through October. Updates on mosquito and human case surveillance for WNV are available on the PDPH Health Information Portal

(<https://hip.phila.gov/xv>).

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