



Philadelphia Department of Public Health
Division of Disease Control

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Health Advisory

West Nile Virus Testing and Reporting Requirements for the 2012 Season June 28, 2012

On June 19th, the Philadelphia Department of Public Health (PDPH) identified the city's first mosquito pool infected with the West Nile Virus (WNV) for the 2012 season in Southwest Philadelphia. No human cases have been reported in Philadelphia or across Pennsylvania during 2012. However, given the detection of mosquito pools infected with WNV throughout Southeastern Pennsylvania, risk for human infection is increased.

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 WNV 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 representative on-call for the division). **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 ordered.

Many commercial laboratories offer serologic or PCR testing for WNV. Any positive specimen should be forwarded to the Pennsylvania Department of Health Bureau of Laboratories (PADOH BOL) for confirmatory testing using standard methods developed by the Centers for Disease Control and Prevention. DDC can provide consultation for testing and help facilitate specimen submission to PADOH BOL. For WNV testing inquiries, contact Dana Perella, MPH, Vectorborne Disease Surveillance Coordinator at 215-685-6742.

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 2012 season and will continue through October. Updates on mosquito and human case surveillance for WNV will be posted on the PDPH Health Information Portal (<https://hip.phila.gov>).

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