



Philadelphia Department of Public Health
Division of Disease Control

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Health Notification

West Nile Virus Update 2006

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The 2006 West Nile Virus (WNV) transmission season has begun in the United States. To date, human infection have been documented in Colorado, Mississippi and Texas. The peak of the WNV transmission period in Philadelphia is expected to begin in mid-July and extend into October.

Clinical Presentation:

In humans, the incubation period for WNV ranges from 2–15 days. The majority (approximately 80%) of human WNV infections are asymptomatic. Of those who develop symptoms, nearly all are consistent with WNV–Fever, a mild febrile illness associated with fatigue. Less than 1% of human WNV infections result in meningitis or encephalitis, collectively called WNV-meningoencephalitis (WNVME). The case fatality rate for individuals presenting with WNVME is 10–15%. Older age and immunocompromising conditions are associated with a higher mortality. Although most infections resolve without long-term sequelae, there have been reports of WNV associated acute flaccid paralysis (AFP) resulting in long-term residual paresis or paralysis. Pathologically, AFP is similar to poliomyelitis with the anterior horn cells of the spinal cord being affected. Providers should consider WNV testing in patients that present with any of these symptoms.

Laboratory Diagnosis:

Diagnosis can be made serologically by determining WNV specific antibodies in serum or CSF. In addition, Polymerase Chain Reaction (PCR) or viral culture can identify WNV in CSF. The yield on PCR and viral culture remains low because the WNV viremia is very short lived. Testing is available free of charge by the Pennsylvania Department of Health Bureau of Laboratories (BOL). Providers are encouraged to use BOL for WNV testing in order to avoid delays in confirming a WNV diagnosis. Donated blood is routinely tested for WNV.

Treatment and Prevention:

There is no specific treatment for WNV. Human vaccine is investigational. Prevention remains the best way to decrease the risk of acquiring WNV. Mosquito repellent containing no more than 30% DEET should be applied whenever one is outdoors during mosquito season. Products that contain 10% DEET can safely be used on children > 2 months old. In addition, non-DEET products such as picaridin and oil of lemon eucalyptus (a plant based product) are effective. Eliminating standing water on personal property will decrease mosquito-breeding sites.

Philadelphia has an active mosquito control and dead bird surveillance program. Mosquito complaints and dead bird sightings can be reported to the Vector Control Program at 215-685-9027. WNV Medical Consultation and facilitation of testing of human specimens is available by the Division of Disease Control at 215-685-6740.

For more information about WNV, to report suspected human WNV infection and to request WNV testing of human specimens, please call the Division of Disease Control at 215-685-6740 during regular business hours or 215-686-1776 after-hours.