

**PENNSYLVANIA DEPARTMENT OF HEALTH**  
**2018 - PAHAN-425-10-12 - ADV**  
**2018 West Nile Virus Season Update in Pennsylvania**

<b>DATE:</b>	October 12, 2018
<b>TO:</b>	Health Alert Network
<b>FROM:</b>	Dr. Rachel Levine, Secretary of Health
<b>SUBJECT:</b>	<b>West Nile Virus Season Update in 2018 in Pennsylvania</b>
<b>DISTRIBUTION:</b>	Statewide
<b>LOCATION:</b>	Statewide
<b>STREET ADDRESS:</b>	n/a
<b>COUNTY:</b>	n/a
<b>MUNICIPALITY:</b>	n/a
<b>ZIP CODE:</b>	n/a

**This transmission is a “Health Advisory” provides important information for a specific incident or situation; may not require immediate action.**

**HOSPITALS:** PLEASE SHARE WITH ALL MEDICAL, PEDIATRIC, INFECTION CONTROL, NURSING AND LABORATORY STAFF IN YOUR HOSPITAL

**EMS COUNCILS:** PLEASE DISTRIBUTE AS APPROPRIATE

**FQHCs:** PLEASE DISTRIBUTE AS APPROPRIATE

**LOCAL HEALTH JURISDICTIONS:** PLEASE DISTRIBUTE AS APPROPRIATE

**PROFESSIONAL ORGANIZATIONS:** PLEASE DISTRIBUTE TO YOUR MEMBERSHIP

**Summary**

- Reported human cases of West Nile virus infection are the second highest since cases were first recorded in 2001
- Risk of WNV transmission will continue until the first hard frost occurs
- Health care providers should remain vigilant for West Nile and other arboviral infections in persons with clinically compatible symptoms

As of October 8, 2018, the Pennsylvania Department of Health (DOH) has identified 72 human cases of West Nile virus (WNV) infection from 22 counties, which is the highest year-to-date case count in over a decade and includes three deaths from Lebanon, Lancaster and Westmoreland counties. Additionally, high counts of WNV-infected mosquitoes, birds, and horses have led the Pennsylvania Department of Environmental Protection to record the highest risk of being bitten by WNV-infected mosquitoes than ever previously found. Although WNV is the most commonly reported locally-acquired arbovirus transmitted by mosquitoes in Pennsylvania, other arboviruses are present in the state and can cause infections. DOH recently reported the first case of infection with St. Louis Encephalitis virus since 2008. Since mosquito activity is higher than usual for this time of year, health care providers should remain vigilant as risk of human WNV and other arboviral infections will remain elevated until the first hard frost.

DOH would like to remind health care providers to remain vigilant in considering the diagnosis of arboviral infection in persons presenting with undifferentiated febrile illness or signs of meningoencephalitis, to ask about recent travel history, and to seek appropriate testing and collection of diagnostic specimens.

### **WHEN TO CONSIDER WEST NILE VIRUS TESTING FOR YOUR PATIENT**

1. Remember to ask about each patient's recent (past 3 weeks) travel history, as this can help determine for which arbovirus to test. The following clinical syndromes presenting during summer/fall months among patients with no recent travel history should prompt consideration for WNV testing: **Viral encephalitis, characterized by:**
  - Fever >38°C or 100°F and,
  - CNS involvement, including altered mental status (altered level of consciousness, confusion, agitation, or lethargy) or other cortical signs (cranial nerve palsies, paresis or paralysis, or convulsions) and,
  - Abnormal CSF profile suggesting a viral etiology (negative bacterial Gram stain and culture with a pleocytosis [WBC between 5 and 1500 cells/mm<sup>3</sup>] and/or elevated protein level [ $\geq$ 40 mg/dl]).
2. **Viral meningitis, characterized by:**
  - Fever >38°C or 100°F and,
  - Headache, stiff neck and/or other meningeal signs and,
  - Abnormal CSF profile suggesting viral etiology (negative bacterial Gram stain and culture with a pleocytosis [WBC of 5-1500 cells/mm<sup>3</sup>] and/or elevated protein level [ $\geq$ 40 mg/dl]).
3. **Poliomyelitis-like syndromes:**
  - Acute flaccid paralysis or paresis, which may resemble Guillain-Barré syndrome, or other unexplained movement disorders such as tremor, myoclonus or Parkinson's-like symptoms, especially if associated with atypical features, such as fever, altered mental status and/or a CSF pleocytosis. Afebrile illness with asymmetric weakness, with or without areflexia, has also been reported in association with WNV.
4. **Unexplained febrile illness:**
  - Especially if accompanied by headache, fatigue, myalgias, stiff neck, or rash.

### **DIAGNOSIS OF WEST NILE VIRUS INFECTIONS**

For most arboviral infections, serology and/or nucleic acid testing (e.g., PCR) can facilitate diagnosis. WNV diagnosis is usually serological, by detection of WNV-specific IgM antibody in serum or CSF. **WNV IgM may not be detectable until day 8 of illness.** Specimens collected less than 8 days after onset may be negative for IgM, and testing should be repeated 2-3 weeks later.

Specimens (serum and/or CSF) collected from patients with suspected WNV can be submitted to the DOH Bureau of Laboratories. WNV IgM testing is performed free-of-charge. Instructions for submitting specimens can be found at <http://www.westnile.state.pa.us/action/WNVSubmissionForm.pdf>.

For questions, please call your local health department or DOH at 1-877-PA HEALTH.

Categories of Health Alert messages:

**Health Alert:** conveys the highest level of importance; warrants immediate action or attention.

**Health Advisory:** provides important information for a specific incident or situation; may not require immediate action.

**Health Update:** provides updated information regarding an incident or situation; unlikely to require immediate action.

This information is current as of October 12, 2018 but may be modified in the future.