

## **Communicable Disease Advisory:**

*From the office of the Medical Officer of Health*

## **West Nile Virus**

Date: July 24, 2017

### **Context:**

As the summer progresses, West Nile virus (WNV) activity is starting to be reported in various jurisdictions:

- Saskatchewan has reported their first human case of WNV and positive mosquito pools: <https://www.saskatchewan.ca/residents/health/diseases-and-conditions/west-nile-virus/west-nile-virus-risk-level-and-surveillance-results>.
- Positive mosquito pools have been reported in Ontario (Peel Regional, Toronto, Windsor-Essex County) and Manitoba (Winnipeg and Southern).
- The July 1, 2017 Canadian WNV surveillance posting reported no human cases.
- The US is reporting 46 human cases as of July 18, 2017. (<https://www.cdc.gov/westnile/statsmaps/preliminarymapsdata2017/disease-cases-state.html>).

Alberta has reported its first equine case of WNV on a farm in the MD of Taber (South Zone). The Southeastern part of Alberta is generally a hotspot for WNV activity due mainly to the timely accumulation of degree days over 14.3°C, the optimal temperature for WNV development in *Culex tarsalis* vector mosquitoes. According to the sentinel degree day mapping that occurs across the Prairie Provinces, this threshold has now been reached in SE Alberta, increasing the risk of WNV in these mosquitoes and therefore the risk in humans. ([open.alberta.ca/publications/west-nile-virus-and-degree-days-maps-in-alberta-in-2017](http://open.alberta.ca/publications/west-nile-virus-and-degree-days-maps-in-alberta-in-2017))

Please maintain a high index of suspicion for possible WNV infection, especially in patients with a history of exposure when and where WNV transmission is, or could be, occurring.

### **Clinical features:**

West Nile Neurological Syndrome – History of exposure AND onset of fever AND new onset of at least ONE of the following with attendant symptoms: encephalitis, viral meningitis, acute flaccid paralysis, movement disorders (e.g. tremor, myoclonus), Parkinsonism or Parkinson-like conditions (e.g. cogwheel rigidity, bradykinesia, postural instability), or other neurological syndromes.

West Nile Non-Neurological Syndrome – History of exposure AND at least TWO of the following: fever, myalgia, arthralgia, headache, fatigue, lymphadenopathy, maculopapular rash, other (e.g. gastrointestinal).

### **Actions:**

1. Consider laboratory testing of patients with history of exposure and WNV symptoms.
2. Report confirmed or probable cases of WNV infection to the MOH at 780-433-3940.
3. Remind patients of mosquito precautions at home and while travelling: reduce amount of time spent outdoors during peak mosquito hours (dawn and dusk); wear insect repellent; wear a hat and light coloured long-sleeved shirts and pants.

### **Laboratory Tests:** all specimens to ProvLab

- WNV serology: submit one SST tube
- WNV NAT (blood): submit one blood in EDTA tube
- WNV NAT (CSF): submit at least 0.2 mL of CSF without additive in a sterile tube

### **Additional References:**

Alberta Health.

- West Nile virus Surveillance in Alberta. [www.health.alberta.ca/health-info/WNV-evidence.html](http://www.health.alberta.ca/health-info/WNV-evidence.html)
- Public Health Notifiable Disease Management Guidelines. [open.alberta.ca/publications/west-nile-virus](http://open.alberta.ca/publications/west-nile-virus)

Provincial Laboratory. [www.albertahealthservices.ca/lab/Page14607.aspx](http://www.albertahealthservices.ca/lab/Page14607.aspx)

Alberta Health Services. Fight the Bite. [www.albertahealthservices.ca/info/page14953.aspx](http://www.albertahealthservices.ca/info/page14953.aspx)

**If you have further questions, please contact the Edmonton Zone Medical Officer of Health at 780-433-3940.**

This update is posted on the AHS-MOH webpage [www.albertahealthservices.ca/medstaff/Page7082.aspx](http://www.albertahealthservices.ca/medstaff/Page7082.aspx)