



Population and Public Health Services
Disease Control Department
101-310 Idylwyld Drive North
Saskatoon, SK S7L 0Z2
Phone: 655-4612
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July 16 2015

SHR Physicians and Nurse Practitioners

Re: Submitting Specimens for Diagnosis of West Nile Virus (WNV) Infection and Change in Reporting to Public Health

West Nile Virus (WNV) is now considered to be established in Saskatchewan since it was first identified in 2002. In Saskatchewan there were 7 neurological cases of WNV including 1 death in 2013. Although the virus was at low levels in Saskatchewan last year, it is difficult to predict how much WNV activity we will see this year.

Please note the Ministry of Health is changing their approach to WNV reporting this season. They are focusing reporting on the estimated risk of being bitten by a WNV infected mosquito as determined by environmental factors.

The Ministry is requiring only the following patients with WNV to be reported to Public Health within 48 hours of receiving a positive laboratory report:

- Individuals with neuroinvasive disease and the absence of a more likely explanation **OR**
- Individuals with a history of:
 - Donation of blood or blood products to Canadian Blood Services in the 2 weeks prior to onset of symptoms;
 - Receipt of blood or blood products within the 8 weeks before onset of symptoms;
 - Receipt of tissue or organ donation within the 8 weeks before onset of symptoms

To report, complete the "Physician Reporting Form for Human West Nile Cases" (attached) and fax to SHR Population and Public Health at 306-655-4723.

Who should be tested?

1. Testing is recommended for individuals presenting with neurological symptoms or severe illness during West Nile season (July to October).

- Testing for West Nile virus is recommended for patients with the following clinical presentations:
 - a) Meningitis
 - b) Encephalitis
 - c) Acute flaccid paralysis
 - d) Other unexplained neurological symptoms consistent with WNNS
 - e) Unexplained fever in any:
 - Individual who has received a blood transfusion in the last 8 weeks
 - Recipient of an organ or tissue donation in the last 8 weeks
 - Immunocompromised individual
 - Pregnant woman

2. Testing is not required for mild uncomplicated infections.

- Testing is generally not indicated for an individual with a mild uncomplicated febrile illness unless the results will influence clinical management.
- Testing is not indicated for an individual who is interested in knowing whether the mild febrile illness they are recovering from was WNV, and has no clinical benefit.

3. **Testing may be appropriate when there is a diagnostic dilemma and the diagnosis needs to be confirmed in order to make clinical decisions and avoid unnecessary diagnostic and therapeutic interventions.**
4. **Healthy blood donors with positive West Nile Virus screening tests from the Canadian Blood Services should be retested by the Saskatchewan Disease Control Laboratory (SDCL).**

Recommended specimens for WNV testing

- **Send one SST (serum separator tube [red top tube]) for serology.** SDCL will be using an IgM serology test for antibodies to the WNV. If this specimen is IgM positive it will then be tested for IgG antibodies, and IgG avidity. This will separate past infections from recent infections.
- **When appropriate (meningitis/encephalitis patients only), send 2 ml of CSF** on an ice pack.
- SDCL will indicate on the lab report the need for any convalescent samples. Also consider submitting a second sample if the first was taken within 48 hours of the onset of symptoms and came back negative – it may have been taken before antibodies formed.
- Immunocompromised patients can have a delayed antibody response but a prolonged viremia. When IgM is negative, submit a plasma specimen to SDCL for a WNV test by PCR.
- Summer is also enterovirus season, and enteroviruses can cause symptoms that are virtually indistinguishable from WNV. For patients with meningitis or encephalitis, send a throat swab and stool specimens, as well as CSF, for culture for enteroviruses.

Please indicate on the laboratory requisition if the individual you are testing has been hospitalized or is presenting with meningitis or encephalitis.

For further information or questions on submission of specimens for WNV infection and the investigation of suspected WNNS, call the Saskatchewan Disease Control Laboratory at (306) 787-2964 or SHR Population and Public Health – Communicable Disease Control at 306-655-4612.

For additional information, please see our website at: <https://www.saskatoonhealthregion.ca>, click Locations & Services, Click Public Health Communicable Disease Control. WNV surveillance information will be posted on the website as it is available.

Sincerely,

Original signed

Dr. Johnmark Opondo
Deputy Medical Health Officer
Saskatoon Health Region

Attachment