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**2006 West Nile Virus Update**

**FROM**

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**July 07, 2006**

**Introduction**

West Nile virus (WNV) was first detected in dead birds and mosquitoes in Peel in 2001. It has reappeared in Peel in every year since then.

This update provides information on:

- Peel WNV results for 2005 and this year so far
- Testing for WNV
- Reporting of WNV

**Summary of WNV in Peel for 2005**

- Three (3) Peel residents had laboratory evidence of recent WNV infection
- 33 birds tested positive for WNV
- 24 WNV positive mosquito batches

**WNV in Peel So Far in 2006**

- As of July 07, 2006 – there are no WNV positive dead target birds
- The adult mosquito surveillance program and the larviciding of approximately 75,000 roadside catch basins started on June 12th, 2006.
- Methoprene pellets will be used again to control mosquito larvae in municipal roadside catch basins.
- Larviciding of stagnant surface water breeding sites began in mid May using a variety of biological environmentally friendly larvicides.

**When to Include WNV in a Differential Diagnosis**

During WNV season, WNV should be in the differential diagnosis of all cases of:

- Encephalitis,
- Meningitis,
- Meningoencephalitis,
- Guillain-Barré Syndrome ,
- Acute flaccid paralysis,
- Movement disorders,
- Parkinsonism,
- Fever and rash

**And** where cases have a history of exposure in an area where WNV activity is occurring **or** history of exposure to an alternative mode of transmission such as blood or organ donation.

**The period of greatest risk for WNV**

acquisition is from mid July to the end of September, depending on the weather.

**Other prominent symptoms include:**

headache, gastrointestinal symptoms, fatigue, myalgia, arthralgia, lymphadenopathy and maculopapular rash.

**Diagnostic Testing of Acute Cases (IgM)**

The serology requisition for all suspect WNV cases should indicate: “**Test for suspect WNV**” and **include clinical symptoms on the laboratory requisition.** Collect blood in a red topped tube (5-10 ml clotted blood).

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Non-reactive or indeterminate IgM results require a repeat sample within 7-14 days after symptom onset.

PCR testing of CSF yields positive results only 50% of the time. PCR samples will be referred out from the Public Health Laboratory. This testing is valuable in the immunocompromised population who may not mount a full antibody response.

#### **Diagnostic Testing of Immunity (IgG)**

A physician may want to test for immunity (IgG) to WNV in certain patients, such as outdoor workers who experienced a WNV-like illness last year.

**The serology requisition needs to clearly state: “Test for immunity”** otherwise an acute test (IgM) will be done.

Antibody testing for WNV is reported on the laboratory slip as Flavivirus IgG reactivity (positive = reactive; negative = non-reactive). Positive results (reactive) may be due to infection with WNV or other Flaviviruses (e.g. St. Louis Encephalitis, Dengue) which may cross react. PRNT testing is specific to WNV and will be done by the Public Health Laboratory depending upon the activity in the local region.

#### **WNV is a Reportable Disease**

May 1<sup>st</sup>, 2003 WNV was specified as a reportable and communicable disease under of the *Health Protection and Promotion Act (HPPA)*.

By law, Physicians and other health care providers must report suspect WNV human cases to the local Medical Officer of Health (MOH).

***Physicians can report WNV human cases directly to Peel Health by calling 905-799-7700.***

#### **Blood Donor – Organ Donor Reporting**

As part of disease surveillance of human cases, Peel Health will communicate relevant blood-donor or organ-donor information to the Canadian Blood Services and Trillium Gift of Life network.

**For further information on West Nile Virus, contact Peel Health at 905-799-7700 or visit Peel Region’s website link, Put Mosquitoes Out of Touch:**

<http://www.peel-bugbite.ca>