

**WNV Clinical Presentation and Recommended Laboratory Testing - 2006**

**Clinical Presentation**

Incubation period ranges from 3-14 days. Data from the U.S.A indicates that most WNV infections are mild or clinically unapparent. Approximately 1 in 150 (0.7%) infections will result in severe neurological disease. Advanced age is the most significant risk factor for developing severe neurological disease.

**WNV Neurological Syndromes**

More severe form of illness with clinical presentation including **fever**, with or without symptoms of WNV Non-Neurological Syndromes (see next box to the right), and an associated neurological syndrome consistent with a diagnosis of encephalitis or meningoencephalitis, or viral meningitis, or acute flaccid paralysis (poliomyelitis-like syndrome or Guillain-Barré-like syndrome).

Symptoms may include change in mental status, **severe muscle weakness**, flaccid paralysis, myelitis, seizures, polyradiculitis, cranial nerve abnormalities including optic neuritis, ataxia and extrapyramidal signs.

**For the purpose of WNV Neurologic Syndrome Classification, muscle weakness is characterized by severe (polio-like), non-transient and prolonged symptoms.**

**WNV Non-Neurological Syndromes**

Milder form of illness characterized clinically by at least two of the following:

- Fever, or
- myalgia, or
- arthralgia, or
- headache, or
- fatigue, or
- lymphadenopathy, or
- maculopapular rash

**WNV Asymptomatic Infection**

No clinical presentation

**Recommended Laboratory Testing**

1. **Blood** -use red-top tube, 5-10ml, forward to Central Public Health Laboratory (CPHL)
  - Single serum testing for WNV (IgM, IgG) **NOTE:** a single blood sample should be sufficient for the majority of cases. The attending physician will be notified if a convalescent sample is required.

OR

  - Paired sera, acute and convalescent. Acute sera should be drawn 1-8 post onset of illness. Convalescent should be drawn 10-14 days after onset of illness.
2. **Cerebrospinal Fluid (CSF)** for WNV testing (IgM, IgG) - 1-2ml of CSF should be placed in each of 2 tubes without preservatives, kept frozen on dry ice or in a -70C freezer for transport to CPHL.
3. **Heart blood, CSF and tissue samples-** In fatal cases, attempt should be made to collect heart blood and brain samples for testing. Fresh samples should be sent to CPHL.

Fill lab requisition out carefully and completely. See attached sample lab requisition for further instruction. Specimens should be sent to CPHL, MOHLTC, 81 Resources Road, Toronto, Ontario M9P 3T1. CPHL questions should be directed to the Medical Microbiologist at 416-235-6071 or after hours at 416-605-3113. Hamilton Public Health Services can be reached at 905-546-2063 and after hours at 905-546-3500.