

West Nile Virus Testing in 2005



West Nile virus testing for mild uncomplicated febrile illness is not required for public health purposes and is generally not indicated unless, in the physician’s opinion, the results will influence clinical management. Testing is recommended for the following patients during West Nile season (June – Oct):

- Meningitis, encephalitis, acute flaccid paralysis or other neurological symptoms,
- Patients with unexplained fever occurring more than 3 days and less than 8 weeks after a blood transfusion,
- Febrile patients with a history of blood, organ or tissue donation within 8 weeks,
- Transplant or other immunocompromised patients with unexplained fever and possible exposure to mosquitoes,
- Pregnant women with unexplained febrile illnesses during WNV season
- Healthy blood donors with positive WNV screening tests at Canadian Blood Services.

Please submit the following specimens, with the requisition and **Arboviral History Form** (available at www.provlab.ab.ca):

Specimen:	Transport:	Please specify on requisition:	Comment:
Acute serum (All patients)	5-10 mL in gold top serum separator tube	“WNV - acute”	WNV IgM will be performed within 3 days.
Acute whole blood (All patients)	5-10 mL in purple top EDTA tube	“WNV PCR”	Detects about 40% of cases during 1 st week of illness, prior to antibody.
CSF	1 mL in dedicated sterile tube, if possible	“WNV PCR” or “HSV PCR”	Testing for Enterovirus will be done automatically if WNV PCR ordered.
Convalescent serum (>10 days after acute, critical cases only)	5-10 mL in gold top serum separator tube	“WNV-convalescent”	WNV IgM will be repeated, and IgG will be tested to detect seroconversion.

- IgM on serum, and PCR on EDTA blood together detect >95% of cases on the first blood sample. Convalescent serology may be useful for rare critical cases where IgM and PCR are both initially negative.
- Many patients remain IgM-positive for > 1 yr, so a convalescent serum is recommended to demonstrate changing titres in IgM-positive patients.
- WNV PCR can detect viral RNA in CSF, but has low sensitivity (10-20%). Many CSF specimens are positive for enterovirus.

Please call if you have questions or comments
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