

CLINICAL PATIENT SPECIMEN SUBMISSION PROCEDURES WEST NILE VIRUS

Oregon DHS Health Services, Office of Disease Prevention and Epidemiology,
Acute and Communicable Disease Prevention

SUBMISSION PROCEDURES

Testing for West Nile virus (WNV) will be done on serum and cerebrospinal fluid (CSF) from patients with;

1) Fever $\geq 37.8^{\circ}\text{C}$ (100°F)

AND

2) At least one of the following acute syndromes;

- a) encephalopathy
- b) flaccid paralysis
- c) aseptic meningitis.

If you have a suspected case of West Nile virus (WNV) infection, please do the following:

- Call the local public health authority for the county in which the patient resides and report the suspected case. The laboratory submitting the specimen should also notify the Oregon State Public Health Lab (OSPHL) at 503-693-4100 before sending the specimen. Information on Oregon's local public health authorities may be found at <http://oregon.gov/DHS/ph/acd/reporting/counties.shtml>.
- Collect specimens as follows;
 - ⌚ Serum – collect ≥ 3 cc of whole blood (≥ 1 cc of serum) collect at presentation or as soon as possible thereafter for IgM testing. If the test for IgM is negative, collect a convalescent specimen ≥ 10 days after the acute specimen is collected, for IgG testing.
 - ⌚ CSF – collect ≥ 1 cc of CSF at presentation or as soon as possible thereafter. If the CSF tests positive, collect serum as soon as possible afterwards for confirmatory testing.
- Complete the specimen submission form found at <http://oregon.gov/DHS/ph/phl/docs/42.pdf>
- Submit the specimen(s)—refrigerated or on wet ice, but not frozen—along with the completed form(s) to;

Virology/Immunology Section
Oregon State Public Health Laboratory
3150 NW 229th AV
Hillsboro, Oregon 97124

TEST INTERPRETATION

Serum and CSF will be tested for West Nile virus at the Oregon State Public Health Laboratory Serum by enzyme immunoassay. IgM antibody is present in most cases by day eight after symptom onset. By three weeks after onset, almost all cases will have IgG antibody. In general, convalescent specimens should be drawn no less than ten days after acute phase specimens.

A negative test result on a specimen obtained less than eight days after onset of illness will be interpreted as “inconclusive.” A second (convalescent) specimen, obtained at least ten days after the first specimen, will be needed to make a final determination.

A positive test result on an acute specimen will be reported as “suspect positive” and sent to the California Department of Health Services for confirmation by the plaque reduction neutralization test. Cross-reaction may occur with yellow fever or Japanese encephalitis vaccine, or a previous history of viral encephalitis (e.g., St. Louis encephalitis) or dengue fever.