

# West Nile Virus

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## General:

West Nile virus (WNV) is a virus of the family *Flaviviridae*. Part of the Japanese encephalitis (JE) antigenic complex of viruses, it is found in both tropical and temperate regions. It mainly infects birds, but is known to infect humans, horses, dogs, cats, bats, chipmunks, skunks, squirrels, domestic rabbits, crows, robins, crocodiles and alligators.

The main route of human infection is through the bite of an infected mosquito. Approximately 90% of West Nile Virus infections in humans are without any symptoms.

**Clinical symptoms:** The West Nile Virus produces one of three different outcomes in humans. The first is an asymptomatic infection; the second is a mild febrile syndrome termed West Nile Fever; the third is a neuroinvasive disease termed West Nile meningitis or encephalitis.

The second, febrile stage has an incubation period of 2 to 8 days followed by fever, headache, chills, diaphoresis (excessive sweating), weakness, lymphadenopathy (swollen lymph nodes), drowsiness, pain in the joints and symptoms like those of influenza or the flu. Occasionally there is a short-lived truncal rash and some patients experience gastrointestinal symptoms including nausea, vomiting, loss of appetite, or diarrhea. Symptoms are generally resolved within 7 to 10 days, although fatigue can persist for some weeks and lymphadenopathy up to two months.

The more dangerous encephalitis is characterized by similar early symptoms but also a decreased level of consciousness, sometimes approaching near-coma. Deep tendon reflexes are hyperactive at first, later diminished. There are also extrapyramidal disorders. Recovery is marked by a long convalescence with fatigue. The spinal cord may be infected, marked by anterior myelitis with or without encephalitis. WNV-associated Guillain-Barré syndrome has been identified and other rare effects include multifocal chorioretinitis (which has 100% specificity for identifying WNV infection in patients with possible WNV encephalitis), hepatitis, myocarditis, nephritis, pancreatitis, and splenomegaly.

The following tests are available:

- **West Nile Virus IgG**

Material: 1 ml serum

TAT: 7-10 days\*

Method: IFT

Units: Titer

Ref.- range: <1:20

- **West Nile Virus IgM**

Material: 1 ml serum

TAT: 7-10 days\*

Method: IFT

Units: Titer

Ref.- range: <1:20

For complete list of laboratory test offered at Freiburg Medical Laboratory, please visit  
<http://www.fml-dubai.com/parameter-listings/>