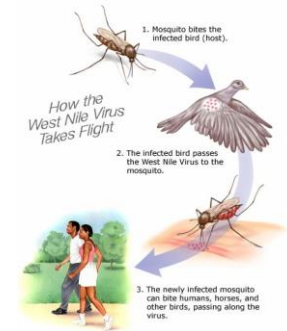


WEST NILE VIRUS

Clinical Description:

West Nile Virus (WNV) is transmitted by mosquitoes that became infected after feeding on the blood of a bird that carried this infectious agent. Most people infected with the virus have no symptoms or they have flu-like symptoms. Sometimes though, the virus can cause severe illness, resulting in hospitalization and even death.



Source of Infection and Transmission:

- ◆ Culex mosquitoes acting as vectors. Birds are the natural reservoir of the virus.
- ◆ Transmission of infected blood/organs or tissue transplantation.
- ◆ From infected mother to baby before birth or via breastmilk.
- ◆ Percutaneous transmission to laboratory workers handling infected birds.

Incubation Period:

- ◆ 3 to 14 days after being bitten by an infected mosquito.

Symptoms:

- ◆ Most people with West Nile virus infection are asymptomatic, or have a mild illness such as fever, headache, stiff neck, nausea, vomiting, muscle weakness, rash, eye pain and lymphadenopathy. Symptoms usually last 3 – 6 days.
- ◆ Neurological presentations include severe muscle weakness and flaccid paralysis, ataxia and extrapyramidal signs, cranial nerve abnormalities, myelitis, optic neuritis, polyradiculitis, and seizures.

Major Complications:

While persons of any age or health status can be at risk of developing serious health effects from West Nile virus, the overall risk of serious health effects increases with age. People with weaker immune systems are considered to be at greater risk for serious health effects.

People at higher risk for serious health effects from West Nile virus include:

- people with chronic diseases, such as cancer, diabetes, alcoholism, or heart disease;
- people that require medical treatment that may weaken the immune system, i.e. chemotherapy.

Studies to date show that some people with serious symptoms and health effects recover completely, while others experience prolonged health problems. These problems can include:

- physical effects, such as long-term muscle weakness and paralysis, fatigue and headache;
- cognitive effects, such as confusion, depression, problems with concentration and memory loss;
- functional effects, such as difficulty with preparing meals, going out, shopping, etc.

Diagnosis and Treatment:

- Detection of IgM antibody to WNV in serum or cerebral spinal fluid (CSF) collected within 8 days of illness onset by MAC-ELISA (enzyme-linked immuno sorbent assay).
- IgM in CSF strongly suggests central nervous system infection.
- Patients who have been vaccinated with yellow fever or Japanese encephalitis may have a positive MAC-ELISA result. There is no specific treatment, medication, or cure for West Nile virus. Serious cases are treated with supportive therapies to ease symptoms and prevent secondary infections. These cases may require hospital or nursing care.
- Consult with an Infectious Disease Specialist.

Public Health Measures:

- ◆ Controlling the mosquito population and protecting against mosquito bites can prevent WNV.
- ◆ Currently, there is a very low risk of West Nile Virus in the Northwest Territories.
- ◆ Travel history is important.

Reporting and Follow-Up:

- ◆ Any suspected cases are to be reported to the Office of the Chief Medical Health Officer (OCMHO).
- ◆ Complete *Communicable Disease Report Form*.

Public Education: (Key Messages)

- ◆ Avoid mosquito bites. Precautionary measures include:
 - ◆ Wear long, loose and light coloured clothing.
 - ◆ Stay indoors when mosquitoes are most active (dusk and dawn).
- ◆ Destroy or dry out mosquito breeding habitat, such as roof gutters, wading pools, wheelbarrows, birdbaths, pools, water gardens, and puddles.
- ◆ Provide travelers with information on endemic areas.