West Nile Virus (WNV)

Disease Name: West Nile Virus, WNV, or West Nile Encephalitis

Disease Type: Viral

Transmission: Vector borne. This virus is transmitted by mosquitoes or other biting insects. Birds act as reservoirs for the virus; mosquitoes and other biting insects then carry the pathogen from infected birds and transmit it to horses when they bite. A horse affected with WNV encephalitis is not contagious and poses no risk to other horses, or birds.

Frequency: Low

Incubation period: 7 to 10 days

Carrier status: Infected horses cannot transmit the disease to other horses. The virus can only be transmitted to a horse via an insect vector.

Shedding period: Infected horses do not shed the virus nor do they act as a source of virus to insect vectors.

Latency: Infected horses pose no risk of infection to other horses.

Severity: Medium. Up to 40% of infected horses are euthanized or die as a result of infection (Source).

Clinical signs and symptoms:

- Depression and anorexia without fever when initially infected
- Mild low-grade fever (101.5-103.5°F or 38.6-39.7°C) in about 25% of affected horses
- Lack of appetite
- Lethargy/drowsiness
- Neurologic signs- Onset of neurologic disease is frequently sudden and progressive
    - Periods of hyperexcitability, apprehension and/or drowsiness
    - Fine tremors and fasiculations of the face and neck muscles
    - Cranial nerve paralysis-- facial paralysis and weakness of the tongue are very common
    - Head tilt, droopy lip, muzzle deviation
    - Weakness, ataxia, and dysmetria (incoordination) in one or all limbs
    - Complete paralysis of one or more limbs
    - Colic
    - Recumbency (inability to stand)
    - Death

 © Copyright EDCC – Revised 2017

Diagnoses: Diagnosis is made by a veterinarian by serum (a component of whole blood) on ELISA (enzyme-linked immunosorbent assay), by measuring for titers or, less commonly, with CSF (cerebrospinal fluid) on PCR.

Treatment: There is no cure for West Nile Virus. Supportive care is administered in cases which show clinical signs.

Prognosis: Clinical disease- horses showing clinical signs of the disease- develops in up to 39% of horses infected. Some infected horses never show clinical signs of the disease and horses who survive usually make a full recovery. However, up to 40% of infected horses are euthanized or die if they become recumbent (unable to rise).

Prevention: Keep all horses up to date on vaccinations. Initial vaccination is followed in 4 to 6 weeks with a booster; yearly revaccination is recommended after. More frequent boosters (i.e. twice yearly) are recommended in areas with year-round mosquito seasons and in endemic areas. Practice vector management on all properties where horses are kept:

- Use insect repellents frequently; re-apply after rain.
- Keep horses in at night when possible, and apply insect repellant.
- Eliminate or minimize standing water.
- Stock tanks or ponds with mosquito-feeding fish.
- Eliminate brush piles, gutters, old tires and litter.
- Remove all equipment in which standing water can collect.

Biosecurity: There are no recommended biosecurity protocols nor do restrictions need to be placed on affected or recovered animals as they pose no risk of infection to other horses. Practice vector control management on your facility to reduce risk of transmission from insects.

 © Copyright EDCC – Revised 2017