West Nile Virus Fact Sheet for Veterinarians

Current situation: In mid-June of 2002, West Nile virus (WNV) was first reported in Texas in blue jays in the eastern portion of the state. Since then, positive tests/cases have been reported in mosquitoes, birds (such as blue jays and crows), horses, and humans. There has also been a continued westward movement of the virus.

Species affected: Equines appear to be the only domestic animal adversely affected by West Nile virus. The virus may infect other domestic animals, but they do not show any clinical signs. Some wild birds develop severe clinical signs and may have large-scale die-offs. Zoo birds such as flamingoes may also be affected. There is no evidence that the virus adversely affects emus or other ratites.

Transmission: Equine species appear to be a dead-end host and are not involved in transmission of the virus; however, there is a vaccine available for equines. Migrating birds are the primary source of the virus, which is transmitted from them to other animals by mosquitoes.

Clinical signs: In most cases, equines infected with the virus will show no clinical signs. When they do show signs, they may be similar to those produced by other equine encephalitides. The most frequent signs are ataxia, weakness of limbs, recumbency, muscle fasciculation, and death.

Diagnosis: Diagnosis will usually be through serology or virus isolation. If West Nile virus or other arboviral encephalitis is suspected, contact the Texas Animal Health Commission (TAHC) at 1-800-550-8242 for sampling guidance or assistance. Samples will include serum and/or brain. When collecting brain samples from encephalitis suspects, always send half to the Texas Department of Health (TDH) for rabies testing. Invert the brain to be sure tissue is equally distributed before dividing it down the midline.

Precautions: If the animal is showing CNS signs, always assume it may have rabies and exercise the appropriate precautions. When visiting locations that may be mosquito-infested, wear long-sleeves and use insect repellents containing DEET.

Human disease: Like equines, most people infected with West Nile virus will show no symptoms. Those that do typically develop mild symptoms of disease: fever, headache, body aches, skin rash, and lymphadenopathy. Of those individuals who become ill, a minority will develop more severe symptoms that include meningitis or encephalitis; death can result from infection with WNV.

Surveillance: State and local agencies are conducting active surveillance to detect West Nile virus and determine its spread through Texas. Activities include collecting mosquitoes; testing sentinel chickens; testing dead crows, blue jays, and hawks; sampling zoo birds; and sampling horses from geographic regions that are at greatest risk (east of the I-35 corridor). In addition, the TDH attempts to isolate arbovirus from any equine brain that tests negative for rabies.

Contacts: To report crows, blue jays, or hawks that die without obvious cause, call your Regional TDH office or the Austin office at (512)-458-7255. For additional information or guidance, contact the TDH offices, your Area TAHC office, or the TAHC headquarters at 1-800-550-8242. Information on WNV can also be obtained at http://www.tdh.state.tx.us/zoonosis/diseases/arboviral/westnile/westnile.asp.