

Government of the District of Columbia
Department of Health



Bureau of Community Hygiene
Animal Disease Prevention Division

APPENDIX C
WNV VETERINARIAN'S ALERT
GOVERNMENT OF THE DISTRICT OF COLUMBIA
DEPARTMENT OF HEALTH

MEMORANDUM

TO: District of Columbia Practicing Veterinarians

FROM: Vito R. DeIvento, DVM, MS
Veterinary Medical Officer
Animal Disease Prevention Division

SUBJECT: West Nile Virus (WNV) Update

DATE: July, 2011

In anticipation of the upcoming West Nile Virus (WNV) season in our area, we are updating the following information to assist you in identifying, testing and reporting West Nile virus cases.

Surveillance and control plans: The District of Columbia Department of Health has developed an Arbovirus Surveillance and Response Plan for the year 2011. This plan outlines WNV surveillance for humans, birds, mammals and mosquitoes. The plan also provides a prevention, control and response program for WNV for the District of Columbia. The plan, as well as, prevention and control measures and periodic health alerts and weekly surveillance reports is available on the Department of Health website at www.doh.dc.gov. Clients should be advised to apply the same general guidelines proposed for people to their pets to reduce the chance of their pet's exposure to West Nile virus.

Reporting and testing of ill animals: If you encounter animals exhibiting neurologic signs indicative of encephalitis, a diagnosis of rabies is more likely than WNV. Rabies is considered more critical in regards to necessary rapid provision for preventive treatment to persons exposed. If rabies is suspected and exposure has occurred, such as a bite or contact with the animal's saliva, the animal must be euthanized and submitted for rabies testing. The submission should be coordinated with the Department of Health. Horses that test negative for rabies and are from a WNV affected area will subsequently have the brain specimens tested for WNV. Routine WNV testing of the brains of additional rabies-negative animals may be arranged depending on resources and priorities.

Clinical disease and transmission caused by WNV infection in dogs and cats was documented in 2002. Clinical case criteria that have been helpful in narrowing down human encephalitis cases for WNV testing include fever, altered mental status, muscle weakness and abnormal CSF (increased protein, pleiocytosis, and lymphocytosis). Animals exhibiting signs of encephalitis that do not require euthanasia and rabies testing and are from WNV affected areas may be tested for WNV. The District of Columbia Public Health Laboratory will conduct serologic and virus isolation testing for WNV. Because animals and pets are unlikely to demonstrate clinical signs of WNV, please consult with Department of Health Animal Disease Control Division if you have questions regarding sample submission criteria.

For encephalitis cases in domestic animals/livestock, Department of Health, Animal Disease Prevention Division must be consulted before submitting samples. Samples collected for antibody detection should be collected in red top (clot) tubes and should be paired samples. Virus isolation has, to date, been successful with brain, spinal cord, and kidney.

Prevention: Efforts should be directed to minimize exposure to mosquitoes. The single most important control effort should be to eliminate or minimize mosquito breeding habitats near dwellings or stable areas. Clients should be directed to monitor their surrounding areas for cans, tires, clogged gutters or other items which hold standing water. These areas promote and harbor breeding sites for mosquitoes. This includes swimming pools that are not opened and not maintained in good condition. Water troughs and water dishes should be kept in clean. The water in these receptacles should be refreshed/changed every three days and maintained so that they do not become breeding sites for mosquitoes. By minimizing breeding sites of the WNV carrier, mosquito, the number of adult mosquitoes and potentially virus positive mosquitoes that interact with mammalian hosts can be decreased.

In addition to decreasing the number of breeding sites for the vector, keeping animals in during dawn and dusk when the *Culex* spp. is most active may decrease exposure to this mosquito species. Insect spray may be effective for short periods of time, but will not have a lasting effect.

Summary: The risk of acquiring WNV infection from horses or other mammals as a clinician examining these animals is undocumented. WNV is vector-borne, however it is prudent to practice universal precautions when handling animals with neurologic signs, especially since rabies, a differential rule-out, can be transmitted directly from an infected animal.

**For further questions and submission criteria, please call the District of Columbia
Department of Health, Animal Disease Prevention Division, 202-535-2323**