Health Advisory: West Nile Virus

On 07/19/2011, the Miami-Dade County Health Department was advised by our Bureau of Laboratories that a sentinel chicken in the northeastern Miami-Dade county area had been confirmed to have been infected with West Nile Virus. The sentinel chickens are tested on a weekly basis and the blood from this test was drawn on 07/11/2011. The previous week’s testing done on 07/04/2011 showed negative results for WNV or any arboviral infections. This advisory is to alert you to the possibility of human infections and to please consider West Nile Virus as a source of infection in your differential diagnosis of any patient that may present with the following symptoms:

Clinical Features of West Nile Fever

Fever, Headache, Fatigue, Skin rash on the trunk of the body (occasionally), Swollen lymph nodes (occasionally), Eye pain (occasionally).

Severe Disease: West Nile Meningitis, West Nile Encephalitis, and West Nile Poliomyelitis

Clinical Features of Severe Disease

Fever, Gastrointestinal symptoms (Nausea/vomiting), Ataxia and extrapyramidal signs, Optic neuritis, Seizures, Weakness, Change in Mental status, Myelitis, Polyradiculitis, a Maculopapular rash involving the neck, trunk, arms and legs (rare), Flaccid paralysis (rare), associated myocarditis, pancreatitis and fulminant hepatitis (rare).

When the central nervous system (CNS) is affected, clinical syndromes ranging from febrile headache to aseptic meningitis to encephalitis may occur, and these are usually indistinguishable from similar syndromes caused by other viruses.

About 60% to 75% of people with neuroinvasive WNV infection reportedly have encephalitis or meningoencephalitis, which is characterized by altered mental status or focal neurologic findings.

West Nile meningitis usually involves fever, headache, and stiff neck. Pleocytosis is present. Changes in consciousness are not usually seen and are mild when present.

West Nile encephalitis, the most severe form of neuroinvasive West Nile viral disease, involves fever and headache, but there are more global symptoms. There is usually an alteration of consciousness, which may be mild and result in lethargy but may progress to confusion or coma. Focal
neurologic deficits, including limb paralysis and cranial nerve palsies, may be observed. Tremors and movement disorders also have been noted.

**West Nile polyomyelitis, a flaccid paralysis syndrome associated with WNV infection, is less common than meningitis or encephalitis.** This syndrome is generally characterized by the acute onset of asymmetric limb weakness or paralysis in the absence of sensory loss. Pain sometimes precedes the paralysis. The paralysis can occur in the absence of fever, headache, or other common symptoms associated with WNV infection. Involvement of respiratory muscles, leading to acute respiratory failure, can sometimes occur.

The Miami-Dade County Health Department is concerned for the safety of all the residents and visitors of our county. Our goal is to alert practitioners of any risks involving the public’s health and to assist the medical community in any way possible. If you have any questions, please call the Miami-Dade County Health Department Office of Epidemiology, Disease Control and Immunization Services at 305-470-5660.