Case Definition for Arboviral Disease, Including West Nile Virus (WNV)

Clinical Criteria for Diagnosis
Cases of Arboviral disease are classified as either neuroinvasive or non-neuroinvasive, according to the following criteria:

Neuroinvasive disease requires the presence of fever and at least one of the following, as documented by a physician and in the absence of a more likely clinical explanation:
- Acutely altered mental status (e.g. disorientation, obtundation, stupor, or coma), or
- Other acute signs of central or peripheral neurologic dysfunction (e.g. paresis or paralysis, nerve palsies, sensory deficits, abnormal reflexes, generalized convulsions, or abnormal movements), or
- Pleocytosis (increased white blood cells concentration in cerebrospinal fluid [CSF]) associated with illness clinically compatible with meningitis (e.g., headache or stiff neck)

Non-neuroinvasive disease requires, at minimum, the presence of documented fever, as measured by the patient or clinician, the absence of neuroinvasive disease (above), and the absence of a more likely clinical explanation for the illness. Involvement of non-neurological organs (e.g., heart, pancreas, liver) should be documented using standard clinical/laboratory criteria.

Laboratory Criteria for Diagnosis
Cases of Arboviral disease are also classified as either confirmed or probable, according to the following laboratory criteria:

Confirmed case:
- Fourfold or greater change in virus-specific serum antibody titer, or
- Isolation of virus from or demonstration of specific viral antigen or genomic sequences in tissue, blood, cerebrospinal fluid (CSF), or other body fluid or
- Virus-specific immunoglobulin M (IgM) antibodies demonstrated in CSF by antibody-capture enzyme immunoassay (EIA) or
- Virus-specific IgM antibodies demonstrated in serum by antibody-capture EIA and confirmed by demonstration of virus-specific serum immunoglobulin G (IgG) antibodies in the same or a later specimen by another serologic assay (e.g., neutralization or hemagglutination inhibition).

Revised: March 2006
**Case Classification**

- **Probable:** An encephalitis or meningitis case occurring during a period when arboviral transmission is likely and with the following supportive serology:
  1) A single or stable (less than or equal to twofold change) but elevated titer of virus-specific serum antibodies; or
  2) Serum IgM antibodies detected by antibody-capture EIA but with no available results of a confirmatory test for virus-specific serum IgG antibodies in the same or a later specimen.
- **Confirmed:** An encephalitis or meningitis case that is laboratory confirmed.

**Confirmed case:**

- An encephalitis or meningitis case that is laboratory confirmed.

For information or to report a WNV [cases are to be reported within one (1) day of identification], or other infectious diseases, contact the Disease Control office at:

- **Weekdays, 8:00 AM to 5:00 PM** (951) 358-5107
- **After Hours, Holidays and Weekends** (951) 782-2974
- **Confidential Fax** (951) 358-5102

The Public Health Laboratory Manager can be reached for questions on submission of specimens at (951) 358-5070.

**Reference:**

Centers for Disease Control and Prevention
California Department of Health Services

Revised: March 2006