

County of Riverside ■ Community Health Agency

Department of Public Health

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 (IEIA) 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).

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**