Dengue virus testing is performed at the CDC. Samples sent to the Wisconsin State Laboratory of Hygiene (WSLH) will be forwarded to CDC for testing.

Collection and shipping of clinical specimens to the WSLH:

- Specimens submitted for dengue virus testing must use the WSLH CDD Requisition Form B. Please contact the WSLH-Clinical Stock Orders, for ordering of kits and WSLH CDD Requisition Form B at 1-800-862-1088 or 608-265-2966.
- Specimens requested by the Vectorborne Epidemiologist for IgM confirmatory testing must include the WSLH - Enhanced Wisconsin Arbovirus Surveillance Form provided by the Vectorborne Epidemiologist.
- At least 3-7 mls of serum and/or U>U1ml of CSF in sterile screw-capped vials should be submitted on cold packs.

Note: It is essential that the lab requisition forms be as complete as possible including the patient name, city, date of birth, specimen type, submitting agency, onset date, signs and symptoms, collection date, and travel information. Testing may be delayed on specimens with laboratory forms missing the above requested data.

Test result interpretation

Probable result:

- Dengue-specific IgM antibody in a single serum detected by antibody capture enzyme-linked immunosorbertent assay (MAC-ELISA) is considered as a presumptive positive laboratory result.

Confirmed result:

- Isolation of virus from or demonstration of specific viral antigen or nucleic acid in tissue, blood, CSF, or other body fluid by PCR, immunofluorescence, or immunochemistry test, OR
- Seroconversion from negative for dengue-specific serum IgM antibody in an acute sample (collected less or equal to 5 days from symptom onset) to positive IgM antibody in a convalescent sample collected greater or equal to 5 days from symptom onset, OR
- Fourfold or greater change in dengue-specific IgG antibody titers between acute and convalescent sample, OR
- Greater or equal to 4-fold rise in plaque reduction neutralization test (PRNT) endpoint titer between dengue viruses and other flaviviruses in a convalescent sample, OR
- Virus-specific IgM antibody in CSF.

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