

Arboviral Testing in Maine

It is arboviral season in Maine. Keep these points in mind when considering arboviral testing.

When to consider arboviral testing:

Endemic arboviruses in Maine include:

- Eastern Equine Encephalitis (EEE)
- Jamestown Canyon virus (JCV)
- Powassan virus (POW)
- West Nile virus (WNV)

Consider arboviruses in any patient with

- Febrile or acute neurologic illness
- Recent likely exposure to ticks or mosquitoes
- Cases of encephalitis and aseptic meningitis
- Recent history of travel to areas where non-endemic arboviruses circulate

Consult an infectious disease physician as early as possible to optimize diagnostic testing. Viral loads decrease quickly.



Specimen collection for selected tests at HETL:

Recommended specimen collection volumes:

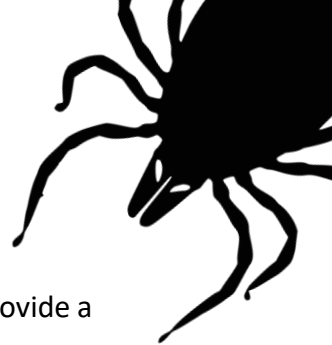
- CSF Panel by PCR: Collect a minimum of 1.5 mL CSF.
 - If negative for enterovirus, HSV1, HSV2, VZV, and *Neisseria meningitidis*, will reflex to run Arboviral Panel.
- Arboviral Panel: Collect a minimum of 0.5 mL CSF, along with a paired serum sample.
- Arboviral Panel AND POW RT-PCR: Collect a minimum of 1.0 mL CSF.
- Viral Metagenomics: May be ordered when etiology is unknown. Collect minimum of 100 μ L CSF.



Sign up for the Health Alert Network:

Maine CDC shares updates about cases of arboviral illness and testing through the Maine Health Alert Network (HAN). Sign up to receive HANs at <https://www.mainehan.org/>.





Interpreting results:

Assays for the detection of IgM and IgG antibodies (ELISA, MIA, IFA) provide a presumptive diagnosis and should be followed by confirmatory testing.

- Confirmatory testing by Plaque Reduction Neutralization Test (PRNT) conducted at US CDC Fort Collins. This test requires at least 14 days before a result is available.

In geographic areas where two or more closely-related arboviruses occur, testing for more than one virus may be needed to determine the specific causative virus.

- For example, such testing might be needed to distinguish antibodies resulting from infections with flaviviruses such as West Nile virus and Powassan virus.

Share this information with your lab:

Clearly label each specimen with:

- Patient name
- Specimen type
- Patient date of birth
- Specimen collection date

For **specimen packaging, storage, and shipping information**, refer to the Laboratory Submission Information Sheets (LSIS) found here:

www.maine.gov/dhhs/lisis



Each sample must be submitted with the following forms. Fill out all forms completely (including symptom onset date on each form):

- A HETL Clinical Requisition Form
- If requesting Arboviral Panel, submit with the Arboviral Submission Form
- Find links to these forms at: www.maine.gov/dhhs/microforms

A Maine CDC epidemiologist may call to collect additional information if specimens need to be sent to US CDC Fort Collins for further testing.



For more information:
Call Maine CDC at 1-800-821-5821 or
email disease.reporting@maine.gov

