

MLS Laboratory Update: Ending Mosquito-borne Arbovirus Testing for the 2023 Season

DECEMBER 1, 2023

Purpose of this Message:

To notify clinical laboratory partners of updates to the arboviral testing services at the Minnesota Department of Health-Public Health Laboratory (MDH-PHL).

Action Item:

Note update to mosquito-borne arboviral testing offered and share with partners.

Background:

With the change of seasons, surveillance for most mosquito-borne arboviral diseases, including West Nile virus (WNV), will be ending for 2023. Because ticks remain active longer than mosquitoes, testing for antibodies to the tickborne-borne Powassan virus (POW) will continue until temperatures remain consistently below 40° F. Clinicians should be aware that Powassan viral infection is still possible when evaluating a patient with encephalitis. Please provide symptom onset dates when requesting serology testing for Powassan in the *Test and Epidemiology Information* section of the [MDH Infectious Disease Laboratory Submission Form \(https://www.health.state.mn.us/diseases/idlab/mdh_lab_submission.pdf\)](https://www.health.state.mn.us/diseases/idlab/mdh_lab_submission.pdf)

In summary:

- Testing for West Nile, Jamestown Canyon, and other mosquito-borne viruses will end after 12/8/23.
- MDH will continue to test for Powassan virus until temperatures are consistently below 40° F (estimated to be mid-December)

Acceptable specimen types for POW serological testing include both CSF and serum. Information regarding acceptable specimen types can be found on the [MDH-PHL Guide to Services page \(https://www.health.state.mn.us/diseases/idlab/gts/testsa.html#arbo\)](https://www.health.state.mn.us/diseases/idlab/gts/testsa.html#arbo).

More information about POW can be found at [Powassan Virus Disease \(https://www.health.state.mn.us/diseases/powassan/index.html\)](https://www.health.state.mn.us/diseases/powassan/index.html)

Additional Information:

Key Points:

- MDH-PHL continues to offer Powassan virus testing for the 2023 season.
- **Symptom onset date must be provided** for testing to be performed. [The General Infectious Disease Laboratory Submission Form \(https://www.health.state.mn.us/diseases/idlab/forms.html\)](https://www.health.state.mn.us/diseases/idlab/forms.html) provides a place for this information to be recorded.
- Healthcare providers and clinical laboratories are required to report all suspect and confirmed arboviral disease cases to MDH within one working day.

Testing Done at MDH-PHL: Any specimen submitted for arboviral testing after 12/8/23 will be tested for the presence of IgM antibodies for Powassan virus.

Our current arboviral panel currently includes:

- Serum and/or CSF specimens:
 - Powassan (POW) IgM enzyme-linked immunosorbent assay (EIA)

Specimen Requirements:

- 1 ml of serum (preferred)
- 1 ml CSF (preferably with a paired serum)
- Please ship specimens on cold packs (2-8°C) within 48 hours of collection. If shipping will be delayed, please freeze specimens and ship to MDH frozen.

If travel associated arboviral infections are suspected –such as Zika, dengue, or chikungunya – or if you have additional questions about arboviral disease, please contact MDH Epidemiology at 651-201-5414.

For more information about arboviruses, please see [Vectorborne Diseases \(https://www.health.state.mn.us/diseases/vectorborne/index.html\)](https://www.health.state.mn.us/diseases/vectorborne/index.html).

For the most up to date submission form, please see [Forms for the Infectious Disease Laboratory \(https://www.health.state.mn.us/diseases/idlab/forms.html\)](https://www.health.state.mn.us/diseases/idlab/forms.html)

Questions:

For specimen or assay-specific questions, please contact:

Scott Cunningham, Virology Unit Supervisor; 651-201-5032, Scott.Cunningham@state.mn.us

OR the MN LabSystem inbox at health.mnlabssystem@state.mn.us

For case reporting or arbovirus information:

Vectorborne Disease Epidemiology at 651-201-5414

Thank you for your partnership and continued arboviral disease surveillance efforts in Minnesota.

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Minnesota Laboratory System
Minnesota Department of Health, Public Health Laboratory
601 Robert St. N, St. Paul, MN 55164-0899
651-201-5200
health.mnlabsystem@state.mn.us
www.health.state.mn.us/diseases/idlab/mls/index.html

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To obtain this information in a different format, call: 651-201-5200.