



6/1/2016

NEW EXPANDED ARBOVIRUS IGM ANTIBODY PANEL

Powassan virus (POWV) and Jamestown Canyon virus (JCV) have been added to the WSLH Arbovirus IgM Antibody Panel. This panel already includes testing for West Nile virus, La Crosse virus, Eastern equine encephalitis virus, and St. Louis encephalitis virus IgM antibodies. The test panel uses a qualitative IgM capture ELISA to detect antibodies against these viruses.

Powassan virus (POWV) - In Wisconsin, POWV is a rare tick-borne infection transmitted by the bite of infected deer/black-legged ticks (*Ixodes scapularis*). The first case of POWV was identified in Wisconsin in 2003. Only a handful of POWV cases are reported each year, but the disease is likely underreported because of the lack of routine laboratory testing. In 2013, 5 cases of POWV were identified, with 3 of those being neuro-invasive disease. Signs and symptoms include acute onset of fever, muscle weakness, confusion, headache, nausea, vomiting, and stiff neck. Severe illness can include confusion, paralysis, speech difficulties, memory loss, and meningoencephalitis.

Jamestown Canyon virus (JCV) - JCV was first recognized as causing human illness in 1980 and rarely has been reported in Wisconsin. However, like POWV it is likely underreported because of the unavailability of laboratory tests to detect infection. In 2013, 22 cases were reported in the United States. JCV is a member of the California serogroup viruses that includes the mosquito-borne viruses California encephalitis, Keystone, La Crosse, snowshoe hare and trivittatus. Initial symptoms of illness may include fever, headache, nausea, vomiting, and fatigue. Severe symptoms often involve encephalitis and can include seizures, coma, and paralysis.

Diagnostic Testing

- Arbovirus IgM Antibody Panel: Test Code SS02201
- Methodology: Qualitative IgM capture ELISA for JCV, POWV, EEE and LAC; Microsphere immunoassay (MIA) for WNV/SLE
- Specimen Types: Serum, 1-3 ml; Both serum and CSF, minimum 500 ul, for patients with possible encephalitis
- Specimen Handling: Specimens must be stored and transported to the lab at 2-8C (refrigerated with cool packs)
- Turn-around Time: One week
- Results: Negative, Presumptive Positive or Nonspecific for MIA. Numeric value and interpretation as Negative, Equivocal, Presumptive Positive, or Uninterpretable for IgM capture ELISA
- CPT Codes: 86651, 86652, 86653, 86788, 86790 x 3
- Price: \$425

