



Public Health Advisory

**Saint Louis Encephalitis Virus Identified In Clark County Mosquito Pools
June 30, 2016**

Situation:

The Southern Nevada Health District (SNHD) Environmental Health Vector Surveillance has identified Saint Louis encephalitis virus (SLEV) in mosquito pools in several zip codes in Clark County. Prior to 2015, SLEV had never been detected in Clark County mosquitoes. In 2015 SLEV was detected in only 2 mosquito pools in Clark County; one in July and one in August. This year there have been 124 SLEV positive mosquito pools to date. West Nile Virus (WNV) has not yet been detected in Clark County this year. Mosquitoes, mostly *Culex spp.*, acquire SLEV after feeding on infected birds. Unlike WNV, SLEV does not make birds sick enhancing the cycle of infection.

Persons infected with SLEV are most commonly asymptomatic or have a mild illness characterized by headache and fever. More severe disease presents with fever, headache, stiff neck, stupor, disorientation, coma, tremors, occasional convulsions (especially in infants), and spastic (but rarely flaccid) paralysis. The risk of severe disease is increased in very young, elderly, and immunocompromised populations. There is no vaccine or specific antiviral treatment for SLEV infection.

Serologic testing is the primary method for diagnosing SLEV infection. A rapid and accurate diagnosis of acute neuroinvasive SLEV disease can be made by detection of SLEV-specific IgM antibody in serum or CSF. These tests are available commercially. A positive SLEV IgM test result should be confirmed by plaque neutralization antibody testing (PRNT) which can be arranged through the Southern Nevada Health District Office of Epidemiology. Please see table below for commercial laboratory test information.

Table: Laboratory testing for St. Louis encephalitis (SLE). Contact the testing laboratory for specimen collection, transport, and storage directions. Some laboratories only offer Arbovirus antibody panels which include testing for SLEV along with California Encephalitis, Eastern Equine Encephalitis, Western Equine Encephalitis, and West Nile viruses.

Laboratory Name	Test Code	Test Name
ARUP Laboratories	2001592	Arbovirus Antibodies, IgM, Serum
ARUP Laboratories	2001595	Arbovirus Antibodies, IgM, CSF
Clinical Pathology Laboratories (CPL)	3105	Arbovirus Antibodies, IgM, Serum
Clinical Pathology Laboratories (CPL)	4070	Arbovirus Antibodies, IgM, CSF
Quest Diagnostic Laboratories (must write "Use Focus test code" on test requisition)	40895 Focus	SLE virus antibody, IgG/IgM, Serum
Quest Diagnostic Laboratories (must write "Use Focus test code" on test requisition)	60895 Focus	SLE virus antibody, IgG/IgM, CSF
Quest Diagnostic Laboratories (must write "Use Focus test code" on test requisition)	2240 Focus	Arbovirus IgM antibodies, Serum (Does not include West Nile Virus)
Quest Diagnostic Laboratories (must write "Use Focus test code" on test requisition)	60145 Focus	Arbovirus IgM antibodies, CSF (Does not include West Nile Virus)

Patient treatment for SLEV infection is supportive. Cerebrospinal fluid (CSF) studies in SLEV neuroinvasive disease demonstrate moderate, typically lymphocytic, pleocytosis. CSF protein is also elevated in 50% to 75% of cases. Computed tomography scans are usually normal and electroencephalographic results show generalized slowing without focal activity.

For Clinicians:

- ✓ Please include SLE in your differential diagnoses
- ✓ In patients diagnosed with aseptic meningitis or encephalitis, consider ordering an Arbovirus panel on the CSF.
- ✓ Please report all SLEV disease cases to SNHD



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Health Alert: conveys the highest level of importance; warrants immediate action or attention

Health Advisory: provides important information for a specific incident or situation; may not require immediate action

Health Update: provides updated information regarding an incident or situation; unlikely to require immediate action

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Reference: <https://www.cdc.gov/sle/technical/fact.html>