



**Public Health Advisory
Outbreak of West Nile virus in humans in Clark County
August 29, 2019**

Situation

The Southern Nevada Health District (SNHD) is reporting the 36th case of West Nile Virus (WNV) in Clark County residents. Twenty-six individuals have had the neuroinvasive form of illness, and 10 individuals have had the non-neuroinvasive form. West Nile virus is endemic in Clark County, and human disease cases are expected to continue to increase. SNHD has noted a drastic increase in viral meningitis cases for June and July which may be caused by undiagnosed WNV infections. For June and July 2019, there were 24 cases of viral meningitis reported, in 2018 there were 5, and in 2017 there were only 4 reported. SNHD is alerting healthcare providers to be vigilant for the symptoms described below and order appropriate testing when WNV infection is suspected, particularly if there is a meningitis/encephalitis diagnosis.

The Health District's Mosquito Surveillance Program continues to identify West Nile and St. Louis encephalitis virus-positive mosquitoes throughout Southern Nevada. St. Louis encephalitis virus (SLEV) and West Nile virus (WNV) are closely related mosquito-borne flaviviruses that can cause outbreaks of acute febrile illness and neurologic disease. West Nile virus-positive mosquitoes have been found in 41 unique ZIP codes, and mosquitoes testing positive for St. Louis encephalitis virus have been found in 15 unique ZIP codes so far this season. More than 39,000 mosquitoes, totaling over 1,800 submission pools, have been tested for arboviruses this year. Of those samples, 264 submission pools, have tested positive for West Nile virus, and 30 submission pools have tested positive for St. Louis encephalitis virus.

Symptoms

The clinical presentation for WNV and SLEV disease cases is similar. Most people infected do not develop symptoms. About 1 in 5 develop a fever with other symptoms such as headache, body aches, joint pain, vomiting, diarrhea, or rash. This is the non-neuroinvasive form of illness, and people with this type of infection recover completely, but fatigue and weakness can last for weeks or months. About 1 in 150 people who are infected develop a severe illness affecting the central nervous system causing encephalitis (inflammation of the brain) or meningitis (inflammation of the membranes that surround the brain and spinal cord).

- Symptoms of severe illness include high fever, headache, neck stiffness, stupor, disorientation, coma, tremors, muscle weakness, and possibly paralysis.
- Recovery might take several weeks or months; some effects might be permanent.
- About 1 out of 10 people who develop severe illness affecting the central nervous system die.

Recommendations for Healthcare Providers

Currently, there are commercially available laboratory tests for diagnosis of acute WNV infection, but there is no commercially available SLEV test, and all SLEV testing must be performed at public health laboratories. In addition, there is cross reactivity between WNV and SLEV antibodies. Healthcare providers should be aware of the possible syndromes of WNV and SLEV infections in patients and order WNV testing when suspected. There is no specific treatment for these viruses, and patients with severe illness should be hospitalized for supportive care such as intravenous fluids, pain medication and monitoring.

Testing Options

Laboratory	Specimen	Test Name	Test code
Quest	Serum	WNV Antibodies, IgM, IgG	36596
Quest	CSF	WNV Antibodies, IgM, IgG	36597
Quest	Serum	WNV RNA, Real-Time PCR	10992
Quest	CSF/Serum	WNV RNA, QL PCR	17563 or 11190
LabCorp	Serum	WNV IgM	138842
LabCorp	CSF	WNV IgM	138966

LabCorp	Serum/CSF	WNV RT PCR	140005
CPL	Serum	WNV IgM	3824
CPL	CSF	Arbovirus AB, IgM, IgG	451800
CPL	CSF	WNV AB, IgM, IgG	400600
CPL	Serum or Plasma	WNV by PCR	3995

Please report cases to SNHD's Office of Epidemiology and Disease Surveillance by fax at 702-759-1414, by phone at 702-759-1300, or online at <https://www.southernnevadahealthdistrict.org/news-info/reportable-diseases/reportable-diseases-form/>.



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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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