

First Human Case of West Nile Virus Disease in Maricopa County, 2023

Public Health Surveillance System Alert: April 2023

An adult case of **West Nile virus (WNV)** has been confirmed at Arizona State Public Health Laboratory. Routine mosquito surveillance has yielded increasing mosquito activity and **St. Louis encephalitis (SLE)** positive mosquitoes in Maricopa County.

Both **serum** and **cerebrospinal fluid (CSF)** can be collected for diagnostic testing commercially.

Healthcare providers should strongly consider **WNV** and **SLE** for patients fitting the following profile:

- **All cases** of viral encephalitis.
- **All cases** of acute flaccid paralysis or Guillain-Barré syndrome of unknown etiology, with or without presence of viral meningitis or viral encephalitis.
- Cases of aseptic meningitis, especially those with **at least one** of the following:
 - Altered mentation
 - Profound muscle weakness
 - Neuropathic symptoms
 - Flaccid paralysis
 - Spastic paralysis
 - Guillan-Barré syndrome
 - Seizure
- Cases of febrile illness of unknown etiology, with or without presence of other symptoms such as headache, body aches, joint pains, vomiting, diarrhea, or rash.

Laboratory diagnosis is recommended and is accomplished by testing of **serum** or **CSF** to detect WNV-specific and SLE-specific IgM antibodies.

- WNV-specific & SLE-specific IgM antibodies are usually detectable three to eight days after onset of illness.
- If serum is collected within eight days of illness onset, the absence of detectable virus-specific IgM does not rule out the diagnosis of WNV or SLE infection, and the test may need to be repeated on a later sample.

For additional information and resources, please visit :

- Disease information and current case counts: www.maricopa.gov/1608/Mosquito-Related-Diseases
- Arboviral site: www.azdhs.gov/preparedness/epidemiology-disease-control/mosquito-borne/index.php
- Information on WNV: www.cdc.gov/ncidod/dvbid/westnile/index.htm
- Information on SLE: www.cdc.gov/sle/

