



Public Health Department

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Health Update

To: Healthcare Providers

From: Andy Miller, M.D. (signed original on file)

Date: June 24, 2019

Re: **FREE WNV Testing**

As part of a Centers for Disease Control and California Department of Public Health (CDPH) study on West Nile Virus beginning in June of 2019, West Nile Virus diagnostic testing will be available at **no cost** through CDPH. Providers interested in testing through this program should submit specimens to the Butte County Public Health Department Laboratory at **695 Oleander Ave. Chico, CA 95926**.

Who Should Be Tested for WNV

Medical providers should order WNV testing from April through November for all patients presenting with the following clinical syndromes:

1. Encephalitis
2. Aseptic meningitis
3. Acute flaccid paralysis; atypical Guillain-Barré Syndrome; transverse myelitis
4. Febrile illness ($T \geq 38^{\circ}\text{C}$ for > 7 days) compatible with WNV. Other symptoms may include headache, rash, swollen lymph nodes, eye pain, nausea or vomiting. Fatigue and lethargy may persist for a prolonged period of time after initial symptoms.

Testing Information

Laboratory diagnosis is usually done by testing serum or cerebrospinal fluid (CSF) for WNV-specific antibodies. Enzyme Immunoassay (EIA) antibody test for WNV IgG and IgM is the preferred initial test. For testing, an acute serum specimen (≥ 2 cc) is required or, if lumbar puncture performed, 1-2 cc CSF. (*Note: PCR testing is available but not recommended for clinical diagnostic purposes due to the low sensitivity of the test and resulting unacceptably high number of false-negative results. A negative PCR test does not rule out WNV infection.*)

WNV IgM antibodies are usually detectable 3-8 days after onset of illness. If specimens were collected within 8 days of symptom onset, false-negatives are possible. If WNV is highly suspected, repeat the test in 3-5 days after the initial specimen collection.

When to Consider St. Louis Encephalitis

St. Louis encephalitis virus (SLEV) has recently re-emerged in California. Like WNV infection, SLEV infection is usually mild or asymptomatic but can cause severe neurologic illness. In 2018, there were 5 human cases of SLEV in CA, none of which were in Butte County. As of June 20, 2019, there have been no human cases of SLEV reported this season.

SLEV is transmitted by the same mosquitoes as WNV. This virus is closely related to WNV, and most commercial assays are unable to distinguish between these two infections. The most reliable way to distinguish them is via plaque reduction neutralization test (PRNT). **Once SLEV has been detected in Butte County in non-human sources, all reported cases of WNV will require PRNT to differentiate between the two diseases.** Due to the low frequency of SLEV, BCPHD will work with providers to coordinate confirmatory PRNT.

Why Test for WNV

- Testing differentiates WNV from other conditions (enterovirus, other arboviral diseases)
- Mosquito control and public health agencies can institute proper control measures to prevent further cases
- Testing results offer anticipatory guidance - patients with WNV neuroinvasive or non-neuroinvasive disease can have lingering symptoms and knowing the underlying etiology is helpful for the patient and family members

Reporting

WNV infection is a reportable disease. The California Code of Regulations, section 2500, require providers to report all positive acute laboratory findings and clinical cases of WNV to the patient's local health department within one working day of identification.

All cases of acute encephalitis and meningitis regardless of etiology are also reportable within one working day.

A Confidential Morbidity Report (CMR) can be used to file a report. The CMR may be faxed to the BCPHD at: Chico (530) 879-3309, or Oroville (530) 538-5387. Providers who have signed up to report electronically via Provider Portal can submit a web CMR on-line via CalREDIE. If you have further questions, please contact the Butte County Public Health Departments Communicable Disease (CD) staff at: (530) 552-3929.

Under Title 17, California Code of Regulations (CCR), failure to report is a misdemeanor (Health and Safety Code § 120295) and is a citable offense under the Medical Board of California's Citation and Fine Program (Title 16, CCR, § 1364).

Resources:

- BCHD website: <http://www.buttecounty.net/publichealth/>
- California West Nile Virus website: <http://westnile.ca.gov/>
- WNV Information for Healthcare Providers: <https://www.cdc.gov/westnile/healthCareProviders/>
- Dead Bird Hotline: 1-877-WNV-BIRD or http://www.westnile.ca.gov/report_wnv.php

Categories of urgency levels:

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