PUBLIC HEALTH ADVISORY
WEST NILE AND VECTOR-BORNE DISEASE
MAY 29, 2020

Situation Update
Warm weather is here again, and along with the warmer weather comes greater seasonal mosquito activity and the threat of West Nile Virus (WNV), Zika Virus Disease (ZVD) and other vector-borne diseases.

California has reported 746 travel associated ZVD cases since 2015, nine of which were attributed to sexual transmission. As of May 13, 2020, eight locally acquired mosquito borne Zika cases have been reported in the United States. As of May 22, 2020, no cases have been reported in Riverside County.

In 2019 statewide there were 243 WNV infections with six fatalities, with 12 cases reported in Riverside County. Mosquitoes collected from traps in Thermal tested positive for St. Louis Encephalitis (SLEV). This is the first mosquito sample in 2020 to test positive for the virus in the Coachella Valley.

No human cases of WNV have been detected so far in California as of May 22, 2020. However, five positive dead birds have been reported in two counties. West Nile Virus is considered endemic in Riverside County.

West Nile Virus Testing
The diagnosis of WNV infection is based on a high index of clinical suspicion and specific laboratory tests. We highly recommend clinicians test for WNV whenever there is a history of unexplained encephalitis, meningitis or unexplained febrile illness ≥ 7 days especially if the fever is accompanied by a headache, rash, swollen lymph nodes, eye pain, nausea or vomiting. Testing is available through the county Public Health Laboratory.

Questions about specimen submission should be directed to the RUHS Public Health Laboratory (PHL) by calling (951) 358-5070. Clinician information is available at http://www.westnile.ca.gov/resources.php

What specimens are needed for West Nile Virus testing?
- Acute serum specimen (≥ 2mL) is required from all patients.
- Whole blood specimen (3-5 ml) in a red top or serum separator tube
- If a lumbar puncture is performed, 1-2mLs of cerebrospinal fluid (CSF) are also required for testing.
  - CSF must be accompanied by a serum sample.
- Convalescent specimens may be requested.
Zika Virus Testing
Laboratory testing for Zika is available through approved commercial laboratories in addition to the California Department of Public Health (CDPH) Viral and Rickettsial Disease Laboratory (VRDL). Please submit a serum or CSF specimen to the RUHS PHL. CDPH also recommends the submission of urine specimens for any symptomatic patient within 21 days of the onset of symptoms.

**What specimens are needed for West Nile Virus testing?**
- Acute serum specimen (≥ 2mL) is required from all patients.
- Whole blood specimen (3-5 ml) in a red top or serum separator tube
- If a lumbar puncture is performed, 1-2mLs of cerebrospinal fluid (CSF) are also required for testing.
- Urine: 10-40 ml in sterile collection tubes. Urine must be submitted with an accompanying serum.

Suspected Zika cases must be reported to Disease Control prior to submitting specimens to the Public Health laboratory. Hospital laboratories should coordinate with the Infection Preventionist on reporting suspected cases. Patients must meet the clinical and travel history criteria to be approved for Zika testing through public health, but specimens may be submitted to any approved commercial lab without public health approval. A quick sheet on Zika testing and the VRDL submittal form are located at [http://www.rivco-diseasecontrol.org/](http://www.rivco-diseasecontrol.org/).

Other Vector-Borne Disease Testing (Chikungunya, Dengue Fever)
Specimens may also be tested for chikungunya and dengue. Questions on specimen collection and submission should be directed to the Public Health Laboratory at (951) 358-5070. These illnesses are also reportable.

Educate Patients about Prevention
- **DRAIN:** Mosquitoes lay their eggs on standing water. Young mosquitoes grow in the water. Get rid of standing water around the home. Empty water out of buckets, old tires, flowerpots, and toys.
- **DEFEND:** Use an EPA-registered insect repellent with DEET, picaridin, IR3535 or oil of lemon eucalyptus in it. Put the repellent on skin that is not covered by clothes. Follow the directions carefully.
- **DUSK and DAWN:** Mosquitoes that transmit West Nile virus bite in the early morning and early evening hours, and sometimes throughout the night. Aedes mosquitoes which carry Zika are aggressive day biters. When outside in the early morning or evening hours, wear long pants and a long sleeved shirt.

How to Report
WNV, Zika and most other vector-borne disease are reportable. To report cases of WNV, Zika and other urgent reportable conditions, please call Disease Control at (951) 358-5107 or fax your reports to (951) 358-5446. Health care facilities enrolled in CalREDIE may report electronically.

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