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*To promote and protect the physical, mental, social, and environmental health for the people of Kings County through education and prevention*

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## Re: WNV- Keep It On Your Radar

Dear Colleagues,

I want to inform you that several mosquito pools in Kings County have tested positive for West Nile Virus (WNV). Tulare County has noted even more positive pools. The presence of the virus in mosquito pools is a couple weeks early. I suggest that it's time for you to put WNV on your diagnosis radar.

West Nile is not a rare disease in California. Since 2003 there have been 4805 cases reported. (The incidence in the San Joaquin Valley has typically exceeded the rest of the state.) Very likely WNV is under-diagnosed. The expected proportion of neuroinvasive cases should be 5- 10% of all symptomatic cases. The reported neuroinvasive cases in California have exceeded WN Fever cases since 2009. In 2014, 70% of the reported cases were neuroinvasive. Even neuroinvasive cases likely are being missed. A study of four hospitals in four California counties found that 80% of patients with compatible neurologic presentation were not tested for WNV. Even though there is no specific treatment, making the diagnosis of WN Fever has clinical and disease control value. WN Fever is associated with significant morbidity, e.g., complaints of fatigue lasting more than a month are common. Patients may be reassured that their persistent symptoms are explained by the diagnosis. Additionally, the diagnosis may obviate further unnecessary testing and empiric therapy. Reports of any WNV disease are used by the mosquito control program to target their mosquito control interventions.

WN Fever's presentation is nonspecific. "Most symptomatic persons experience an acute systemic febrile illness that often includes headache, myalgia, or arthralgia; gastrointestinal symptoms and a transient maculopapular rash also are commonly reported." (CDC 2013) If the index of suspicion is high and initial tests results are negative, repeat testing in 3-5 days may be helpful in making the diagnosis. Early in the course of WN Fever serology may be negative. Tests are almost always positive at the time of presentation in the case of neuroinvasive disease.

Testing is available through commercial laboratories. We can perform testing on those patients for whom cost of testing would be a barrier. You can arrange for this testing by calling our local public health laboratory at 559 852 2608.

I think it likely that WNV is an under-recognized cause of morbidity in Kings County. I hope that you'll keep WNV in mind throughout the summer and fall. Please feel free to call (559 852 2876) or email (michael.maclea@co.kings.ca.us) me with any comments or concerns.

Information regarding WNV is available on our website at:

<http://www.countyofkings.com/departments/public-health/information-for-physicians-clinicians>

Sincerely,

Michael Mac Lean, M.D., M.S.