October 4, 2012

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## West Nile Virus

Orange County continues to receive reports of WNV infection. Consider WNV in your patients with aseptic meningitis, encephalitis, or prolonged fever and submit serology for testing.

WNV – Orange County: So far this season, 24 human WNV infections, including 19 symptomatic cases and
five asymptomatic WNV-positive blood donors, have been reported. This is the third highest number of
infections in one season we have seen in Orange County, surpassed only by 2004 (64 infections) and 2008
(79 infections). Typically in Orange County, cases of WNV continue to be reported through October.

## Clinical Description:

- The incubation period for WNV infection ranges from 2 to 14 days after a bite from an infected mosquito. The incubation period may be longer for immunosuppressed individuals.
- o Clinical syndromes ranging from febrile headache to aseptic meningitis, encephalitis, or acute flaccid paralysis may occur. Rash, myalgia, lymphadenopathy, and weakness may also be prominent.
- o Approximately 80% of individuals who become infected never develop any symptoms. Persons 50 years and older and those with weakened immune systems have the highest risk of severe disease.

## Diagnosis

- o WNV diagnosis is best made by serology (WNV IgM and IgG); in addition, CSF IgM for WNND cases.
- WNV serology may cross react with other flaviviruses (e.g., dengue, St. Louis Encephalitis, or yellow fever, including yellow fever vaccine). Therefore, a positive WNV IgG with negative IgM may reflect old flavivirus infection and does NOT rule out acute WNV infection.
- WNV IgM may be negative early in the course of disease. Repeat serology may be indicated if initial testing was done ≤ 7 days after the onset of illness.
- **Clinical Management:** Treatment is mainly supportive care. Information on clinical management can be found at: <a href="http://www.cdc.gov/ncidod/dvbid/westnile/clinicians/">http://www.cdc.gov/ncidod/dvbid/westnile/clinicians/</a>.
- WNV -- California: A total of 216 human cases have been reported from 27 counties, including 10 deaths. The largest numbers of cases have been reported from Los Angeles, Kern, Stanislaus and Orange Counties.
- WNV United States: A total of 3,545 human cases have been reported, including 163 deaths. The largest numbers of cases have been reported from Texas (1,438), followed by California (216), Louisiana (213) and Mississippi (202).

## **Recommended Resources**

Orange County Health Care Agency: www.ochealthinfo.com/epi/wnv

Orange County Vector Control District: www.ocvcd.org or Ph: 714-971-2421

California Department of Health Services: www.westnile.ca.gov

Centers for Disease Control and Prevention: www.cdc.gov/ncidod/dvbid/westnile

