

WILLIAM B. WALKER, M.D.  
HEALTH SERVICES DIRECTOR

WENDEL BRUNNER, M.D.  
DIRECTOR OF PUBLIC HEALTH



CONTRA COSTA  
PUBLIC HEALTH  
COMMUNICABLE DISEASE  
PROGRAMS  
597 CENTER AVENUE, SUITE 200-A  
MARTINEZ, CALIFORNIA 94553  
PH (925) 313-6740  
FAX (925) 313-6465

**HEALTH ADVISORY**  
**JUNE 20, 2014**

**WEST NILE VIRUS**

**SUMMARY:**

The first human case of West Nile Virus (WNV) in Contra Costa of 2014 has been reported in a central Contra Costa County resident in his 60s. The person was hospitalized and is now recovering.

**CURRENT SITUATION**

- West Nile Virus activity is present in Contra Costa County with one human case identified to date. Current Contra Costa West Nile Virus activity including locations of dead birds and mosquitoes can be found at [http://contracostamosquito.com/wnv\\_contra\\_2014.htm](http://contracostamosquito.com/wnv_contra_2014.htm).
- Information about West Nile Virus activity (infection in humans and animals) in California can be found on <http://www.westnile.ca.gov/>.

**ACTIONS REQUESTED OF HEALTHCARE PROFESSIONALS:**

1. **Be vigilant** for suspect human cases of West Nile Virus (WNV), especially those with aseptic meningitis, encephalitis or acute flaccid paralysis or other acute signs of central or peripheral neurologic dysfunction.
2. **Report** suspect cases to Contra Costa Public Health Communicable Disease by completing the WNV Case History Form (on our website at <http://cchealth.org/westnile/providers.php>) and faxing to 925-313-6465.
3. **Test** for WNV by submitting specimens to Contra Costa Public Health Lab (instructions below).
4. **Advise** patients of WNV personal prevention measures: the use of effective mosquito repellents, empty standing water and/or use mosquitofish, and fix window screens, etc.

**BACKGROUND:**

West Nile Virus is transmitted through the bite of an infected mosquito. WNV has been identified in Contra Costa each year since its introduction in 2005. 80% of infections are asymptomatic, 20% result in West Nile Fever and less than 1% develops CNS disease. There is risk for severe disease with advanced age and co-morbidities including hypertension, chronic renal disease, hepatitis C virus and immunosuppression. WNV infections are seen during increased mosquito activity as occurs during warm summer months into early fall.



**CURRENT RECOMMENDATIONS:**

**REPORTING**

- Maintain heightened awareness of the possibility of WNV infections for individuals presenting with meningitis, encephalitis or acute flaccid paralysis or other acute signs of central or peripheral neurologic dysfunction.
- Report any suspect of WNV within one working day of identification by faxing the West Nile Virus Case Report Form to Contra Costa Public Health at 925-313-6465.  
<http://cchealth.org/westnile/providers.php>

**TESTING**

West Nile virus testing is recommended on individuals with the following:

- A. Encephalitis; OR
  - B. Aseptic meningitis (Note: Consider enterovirus for individuals  $\leq 18$  years of age); OR
  - C. Acute flaccid paralysis; atypical Guillain-Barré Syndrome; transverse myelitis; OR
  - D. Febrile illness compatible with West Nile fever and lasting  $\geq 7$  days (must be seen by health care provider)
1. Required specimens for submittal:
    - Acute Serum:  $\geq 2$ cc serum
    - Cerebrospinal Fluid (CSF): 1-2cc CSF may be submitted with acute serum for further testing at CDC if lumbar puncture is performed and residual CSF is available (Please note: these results may not be available for several weeks)
  2. If West Nile virus is highly suspected and acute serum is negative or inconclusive:
    - 2nd Serum:  $\geq 2$  cc serum collected 3-5 days after acute serum
  3. Each specimen should be labeled with: (1) date of collection, (2) specimen type, and (3) patient name and accompanied by this requisition:  
[http://cchealth.org/laboratory/pdf/lab\\_test\\_form.pdf](http://cchealth.org/laboratory/pdf/lab_test_form.pdf)
  4. Refrigerate specimens and send on cold pack when using a courier
    - Serum that cannot be shipped within 24 hours of collection may be stored at 4°C or -70°C
    - CSF that cannot be shipped within 24 hours of collection should be stored frozen at -70°C
  5. Frozen specimens should be sent on dry ice when using a courier
  6. Please do not send specimens during the weekends (Specimen Receiving Hours: M-F 8-5)
  7. Send specimens to:  
Contra Costa Public Health Lab  
2500 Alhambra Avenue 2<sup>nd</sup> Floor  
Martinez, CA 94553  
(925) 370-5775



**CLINICAL INFORMATION:**

Clinical disease ranges from mild febrile illness to severe encephalitis.

- **West Nile Fever**— is characterized by fever (although some patients will not experience fever) headache, malaise, back pain, myalgias, and anorexia persisting for three to six days. Additional symptoms may include maculopapular rash, eye pain, pharyngitis, nausea, vomiting, diarrhea, and abdominal pain.
- **West Nile Neuroinvasive Disease** — May present as encephalitis, meningitis, or flaccid paralysis or a mixed pattern of disease. These illnesses are usually characterized by the acute onset of fever with headache, myalgia, stiff neck, altered mental status, seizures, limb weakness or cerebrospinal fluid (CSF) pleocytosis.

There is no specific treatment for West Nile Virus infection. Supportive measures are employed as needed.

**ADDITIONAL QUESTIONS:**

Contra Costa Public Health, Communicable Disease Programs can be reached 8AM-5PM M-F at: 925-313-6740 (phone) or 925-313-6465 (fax).

**MORE RESOURCES**

More information may be found at: <http://cchealth.org/westnile/providers.php>, <http://cchealth.org> or [www.cdc.gov](http://www.cdc.gov).

