



DEPARTMENT OF HEALTH AND HUMAN SERVICES

COUNTY OF MARIN

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///// PUBLIC HEALTH UPDATE /////

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TO: Marin Hospitals and Clinics
Physicians: Neurology, Family Practice, Internal Medicine, Pediatrics, Infectious Disease, and Hospitalists (Adult and Pediatric)
Hospital Infection Control Coordinators

FROM: Fred Schwartz, MD, Public Health Officer
Anju Goel, MD, MPH, Deputy Public Health Officer

RE: 2008 West Nile Virus (WNV) Reporting, Testing and Clinical Guidance

The following updates information from the May 2006 WNV Public Health Update. Testing and reporting forms and procedures are unchanged, and continue to be available at the county WNV webpage (see below).

In 2007, there were 380 cases of WNV illness and 20 deaths in California.

From California data presented at the [National WNV Conference 2/06](#): WNV incidence peaked in early August and the median age of cases was 51 years. Relative risk factors for neuroinvasive illness included diabetes, hypertension, age >51 years, and male gender. While WNV illness appeared to be less frequent in the pediatric age group, pediatric and adult cases had a similar distribution of clinical presentations: WN Fever (60% vs. 61% respectively), Encephalitis (15 % in both), Meningitis (25% vs 21%), and Acute Flaccid Paralysis (7% vs. 4%). While most WN Fever symptoms generally resolve within two weeks, muscle weakness may persist two to four weeks, and subjective "return to normal" may take six to eight weeks.

No human cases were reported in Marin County in 2007, though four dead birds tested positive for WNV. In 2006, one human case was reported, and nine birds, one horse, one squirrel and mosquito pools and chickens tested positive in Marin.

WNV activity is again expected across California in 2008. It is possible that human cases, either imported or locally acquired, will occur in Marin. The Marin County HHS Public Health Laboratory (PHL) with support from the California Department of Public Health (CDPH) Viral and Rickettsial Disease Laboratory (VRDL) is now providing WNV testing at no charge. Specimens sent must be accompanied by the appropriate forms (see below). Private laboratories also offer WNV testing, providing another option for clinicians. **WNV is reportable within one working day by phone or fax (see instructions and forms below).**

Testing is recommended for individuals with the following presentations:

- Encephalitis (consider utilizing the California Encephalitis Project, see below)
- Aseptic Meningitis (NB: Consider enterovirus workup in individuals \leq 18 years of age)
- Acute Flaccid Paralysis/Atypical Guillain-Barré Syndrome/Transverse Myelitis
- Febrile illness compatible with West Nile Fever, lasting \geq 7 days, and evaluated by a health care provider

Testing of asymptomatic individuals, including asymptomatic pregnant women, is NOT recommended.

This update and the following important related materials are posted at the Marin County WNV website. You can also click on the links below.

- [WNV Guidelines for Human Testing & Surveillance, May 2005](#). Includes testing, interpretation of results, diagnosis, and instructions for collecting and sending specimens to the PHL.
- [WNV Revised National Surveillance Case Definition - Domestic Arboviral Disease](#).
- [WNV Laboratory Testing at the California Department of Health Services' Viral and Rickettsial Disease Lab](#).
- [WNV Specimen Algorithm for Clinicians](#). Summarizes where to send specimens, which forms to use, and provides contact information for reporting and questions.
- [WNV Diagnostic Testing Submittal Form for Marin County Public Health Lab \(PHL\)](#). Must accompany specimens sent to the Marin County PHL for WNV testing.
- [WNV Case History Form](#). Must be faxed to the Marin HHS Communicable Disease Unit within one working day of diagnosing a WNV case (based on clinical criteria *and* laboratory results). This is also a useful tool in the evaluation of your patient's history, risk factors, and clinical findings, and does not need to accompany specimens sent to the Marin County PHL for WNV testing.
- [California Encephalitis Project](#). Fact sheets and specimen collection instructions and forms for enhanced testing of encephalitis cases (to rule out WNV and other etiologies) at the VRDL.
- [CDC WNV Pregnancy Registry Forms](#). Surveillance registry for birth outcomes of pregnancy-associated WNV infection.

Please download the forms and related materials at www.co.marin.ca.us: From the homepage, type in the search term "WNV" or "West Nile Virus"; then scroll down to "West Nile Virus"; then scroll down to "Information for Clinicians" and click on: "Testing and Related Information". Or go directly to this link:

www.co.marin.ca.us/depts/hh/main/hs/PublicHealth/WNV/WNVInfoClinicians.cfm. You will also find useful educational materials to share with your patients on the WNV website.

Reporting: Clinicians must report WNV cases and deaths, and laboratories must report positive WNV lab results, to the Marin County HHS Communicable Disease Unit **within one working day** by fax (415-473-6002) or phone (415-473-7805). In reporting, clinicians should complete and fax a **WNV Case History Form**; this form can be downloaded from the Marin County WNV webpage as noted above, or be obtained by phoning 415-473-7805. NOTE: Clinicians using a private lab should also complete and submit the **WNV Case History Form, along with the positive lab report**, to report a WNV case.

Diagnostic Categories:

- WNV Neuro-invasive Disease (WNND): Any or all: Encephalitis, Aseptic Meningitis, Acute Flaccid Paralysis. Most cases (99%) will be IgM positive by day 5 of illness.
- West Nile Fever (WNF): The West Nile fever syndrome can be variable and often includes headache and fever ($T \geq 38C$). Other symptoms may include myalgias, rash, lymphadenopathy,

eye pain, nausea or vomiting. After initial symptoms, the patient may experience fatigue and lethargy for several days or more. Not all cases will be IgM positive by 7 days.

- Asymptomatic (testing not recommended).

Specimens (PHL, VRDL): The PHL is open Monday-Friday 8AM-5PM for receipt of specimens. After hours and on weekends, refrigerate specimens until delivery. All specimens must be accompanied by a completed form, **WEST NILE VIRUS SPECIMEN SUBMITTAL FORM – Marin County HHS Public Health Laboratory**. For testing questions please contact the Marin County HHS PHL at 415- 499-6849 or -507-4133. Clinicians utilizing private labs should consult with the individual laboratories for instructions. For encephalitis cases, the California Encephalitis Project at the CDHS VRDL also provides an extensive battery of testing to rule out WNV and other etiologic agents.

Identification of human cases is important early in the West Nile virus season to assess the burden of human illness and will be important to target mosquito control and public education activities to reduce exposure risk. Depending on the volume of tests requested and laboratory capacity, the Marin County PHL may discontinue testing of individuals with West Nile Fever once West Nile virus is well-established in the area.

For additional information about WNV, including information for clinicians:

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

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

Marin County HHS: <http://www.co.marin.ca.us/depts/hh/main/hs/PublicHealth/WNV/WNV.cfm>