



PHYSICIANS' BULLETIN

ZONOOSES – MOSQUITO-BORNE ENCEPHALITIS HIGHLIGHTED

When seeing patients with recent history of exposure to arthropods, rodents and other vertebrates of public health significance, particularly patients with travel history to endemic areas within and outside the United States, consider zoonoses in your evaluation. Zoonoses of particular interest include mosquito-borne encephalitis, malaria, Lyme Disease, Rocky Mountain Spotted Fever, plague, tularemia, hantavirus, and rabies. Because of the impending arrival of West Nile Virus, mosquito-borne encephalitis is highlighted in this publication.

MOSQUITO-BORNE ENCEPHALITIS. Saint Louis Encephalitis (SLE) and Western Equine Encephalitis (WEE) are currently the two main mosquito-borne viral agents of encephalitis in Southern California. Although only one case of West Nile Virus (WNV) is suspected to have been acquired in Southern California (Los Angeles) and WNV is not considered endemic in this state as of this writing, its rapid westerly spread and imminent arrival in our region, possibly as early as this spring, require vigilance in diagnosing and tracking the disease. Most people exposed to mosquito-borne encephalitis viruses remain asymptomatic or may present with nonspecific flu-like syndromes. Mild cases of SLE, WEE and WNV may present as viral meningitis. Severe infections may include acute onset of headache, high fever, meningeal signs, stupor, disorientation, coma, tremors, occasionally convulsions (especially in infants) and spastic (but rarely flaccid) paralysis. With WNV, advanced age is the most significant risk factor for developing severe neurological disease.

Physicians are requested to report all cases of encephalitis, aseptic meningitis, and Atypical Guillain-Barré Syndrome to the Community Epidemiology Division (CED) of the County Health and Human Services Agency. If any of these three conditions is part of the differential diagnosis, acute phase serum and CSF specimens should be collected without delay, and the CED should be contacted for case reporting and for instructions on specimens submission to the California Department of Health Services (CDHS). The CDHS Viral and Rickettsial Disease Laboratory will test for WNV and other mosquito-borne encephalitides, provided that:

1. The case involves:
 - A. A hospitalized/ER patient at least 6 months of age with viral encephalitis characterized by encephalopathy (depressed or altered level of consciousness, lethargy, or personality change), and one or more characteristic symptoms including fever ($T \geq 38^\circ\text{C}$), seizure(s), focal neurologic findings, CSF pleocytosis, abnormal EEG, and/or abnormal neuroimaging.
 - B. A hospitalized/ER patient at least 17 years of age with aseptic meningitis characterized by fever ($T \geq 38^\circ\text{C}$), and headache, stiff neck and/or other meningeal signs, and CSF pleocytosis.
 - C. A hospitalized/ER patient with Atypical Guillain-Barré Syndrome characterized by fever ($T \geq 38^\circ\text{C}$), altered mental status, and/or CSF pleocytosis.
2. The case is reported to the local health department (to CED on a Confidential Morbidity Report Form), and
3. All specimens are accompanied by "West Nile Surveillance Case History Form," which is available on the San Diego County Emergency Medical Alert Network (EMAN) website at: <http://www.emansandiego.com> and provided (in reduced format) on the back page. Specimens include CSF: ~2cc and Serum: 3-5cc, in a red top tube, after separating from packed cells. Store and ship specimens with cold pack or dry ice (preferred). Do NOT ship at room temperature. Label specimens with: patient's name, date of birth, date of specimen collection, and specimen type.

REPORTING REMINDER

Health care providers are urged to promptly notify the County Community Epidemiology Division of any reportable communicable and noncommunicable disease & condition at:

- (619) 515-6620, M-F 8:00 AM to 5:00 PM
- (858) 565-5255, Evenings & Weekends.
- FAX (619) 515-6644.

For information on **West Nile Virus**, including questions and answers for clinicians, a testing algorithm, referral of cases for testing, and case and specimen submission forms, visit the San Diego County EMAN website at: <http://www.emansandiego.com>. EMAN is a network dedicated to facilitating bi-directional confidential communication between San Diego County's medical community and public health and safety agencies in order to ensure rapid identification of and response to unusual disease events or public health emergencies. San Diego Clinicians are encouraged to subscribe.

West Nile Case History Form

This case history form is required for testing (specimens will not be tested without this form)!

Case patients must be hospitalized with encephalitis (= 6 months of age), aseptic meningitis (= 17 years old), or atypical Guillain-Barré syndrome.

Patient Information:
 Last name _____ First name _____ DOB ____/____/____ Medical Record # _____
 Street Address: _____ City _____ Zip Code _____ Occupation _____

Race: White Black Native American
 Asian/Pacific Islander Other Unknown
Sex: Female Male

Exposures 4 wks prior to onset (specify details):
 Mosquito bites/exposure: No Yes
 Other insect bites: No Yes
 Outdoor activity (camping, hiking, etc) No Yes
 Yellow fever vaccination: No Yes
 Date: _____
 Military: No Yes
 Blood Transfusion: No Yes

Clinical:
 Date of first symptom(s): ____/____/____
 Date of hospital admission: ____/____/____
 Do the following apply anytime during current illness:
 In ICU No Yes _____
 Fever $\geq 38^\circ$ No Yes _____
 Alt. conscious No Yes _____
 Stiff neck No Yes _____
 Muscle Weakness No Yes _____
 Encephalitis No Yes _____
 Aseptic Mening No Yes _____
 Guillain-Barré No Yes _____

Significant Past History (medical, social, family):

Ethnicity: Hispanic Non-hispanic
Travel within 4 wks prior to onset
 (specify location, dates, and mode of transportation):
 Outside of United States: No Yes
 In United States: No Yes
 In State (out of local area): No Yes
 Ever traveled outside the US? No Yes

CBC results (first available & subsequent):
 Date: _____
 WBC: _____
 Diff: _____
 HCT _____
 Pit: _____

CSF results (first & subsequent):
 Date: _____
 OP: _____
 RBC: _____
 WBC: _____
 %Diff: _____
 Protein _____
 Glucose _____
 CrAg _____
 VDRL _____

Miscellaneous exposures or potentially pertinent information:

Contact Physician Information (MANDATORY - FOR OBTAINING UPDATES AND RELAYING RESULTS):
 Name: _____ Facility: _____
 Pager: _____ Fax: _____ e-mail: _____

Questions regarding project or specimens contact Evelyn Tu (510) 307-8606 or pager (510) 639-8667.

Fax this form to (610) 307-8699 or send with specimens to:
Specimen Receiving
West Nile Virus Testing
860 Marina Bay Parkway, Richmond, CA 94804

EPIDEMIOLOGY: For epidemiologic consultations contact the San Diego County Community Epidemiology Division at (619) 515-8620 Monday-Friday 8:00 AM to 6:00 PM, or at (858) 565-5255 on evenings and weekends.

LABORATORY: The San Diego County Public Health Laboratory (PHL) offers testing for selected vector-borne diseases. For information and specific instructions on collection and submission of appropriate specimens call the PHL at (619) 692-8500.

VECTOR PREVENTION AND CONTROL: For information on vector prevention and control, physicians may refer clients to the County Department of Environmental Health, Vector Surveillance and Control Program (VSC) at (858) 694-2888. Refer clients who inquire about reporting dead birds for testing to the VCS.

The Physicians' Bulletin is published on an as-needed basis by the County of San Diego Health and Human Services Agency to provide updated information on health issues of concern to San Diego County's medical community.

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