



To: CAHAN San Diego Participants

Date: July 9, 2014

Chikungunya Case Confirmed in San Diego County Resident

This health alert informs the medical community about the first case of chikungunya virus (CHIKV) infection confirmed in a San Diego County resident and provides resource links for clinicians on this emerging disease. The County of San Diego Health and Human Services Agency (HHS) requests that healthcare providers report suspect cases of CHIKV to the Epidemiology Program, especially when CHIKV testing is being considered or has been requested.

Case Description

A previously healthy San Diego County resident was visiting Haiti in late May and sustained a mosquito bite on her eyelid resulting in itchy swelling. Several days later she developed a febrile illness with fatigue and diarrhea. She returned to San Diego and sought care one week after the bite for diffuse joint pains. She was given a non-steroidal anti-inflammatory drug (NSAID) and sent home. She subsequently developed a faint maculopapular rash on the arms, legs, palms and feet and was bedridden with persistent fatigue and joint pains.

Upon seeking care for two weeks of illness, laboratory testing was performed which revealed positive CHIKV IGM and IGG titers, and negative results for dengue, malaria, and other conditions. Paired acute and convalescent sera submitted to the California Department of Public Health (CDPH) later confirmed the CHIKV diagnosis with a greater-than-fourfold increase in antibody titers. The patient has improved with symptomatic treatment and to date has some remaining joint symptoms.

Background

Chikungunya is a viral disease transmitted to humans through the bites of infected *Aedes aegypti* and *Aedes albopictus* mosquitoes. The incubation period is typically 3-7 days (range 1-12 days) after exposure. Acute onset of fever and polyarthralgia are the primary clinical findings. Joint symptoms are usually symmetric, often occur in the hands and feet, and can be severe and debilitating. Other symptoms may include headache, myalgia, arthritis, conjunctivitis, nausea/vomiting, or maculopapular rash.

Acute symptoms typically resolve within 7-10 days. Some patients may have rheumatologic symptoms for months following acute illness. There is no specific antiviral therapy for CHIKV; treatment is supportive and may include rest, fluids, and use of NSAIDs to relieve acute pain and fever. Mortality associated with CHIKV is rare and occurs mostly in older adults.

CHIKV outbreaks have been identified in countries in Africa, Asia, Europe, and the Indian and Pacific Oceans. In December 2013, the first local transmission of CHIKV in the Americas was reported, prompting the Centers for Disease Control and Prevention (CDC) to issue a [health advisory for clinicians](#) and subsequently a [travel alert for the Caribbean](#).

As of July 1, 2014, over 260,000 cases of CHIKV have been reported in the Caribbean. As of July 8, 2014, 153 cases of imported CHIKV were reported in the United States, with 10 identified in California. Although some parts of the country and the state do have the mosquito vectors for CHIKV, San Diego does not. Updated information of CHIKV geographic distribution and local and imported case counts may be found at dedicated websites maintained by [CDC](#), [Pan American Health Organization](#) (PAHO) and [World Health Organization](#) (WHO).

Laboratory Testing for CHIKV

Serologic testing (IgG and IgM) for exposure to CHIKV is available through commercial laboratories (e.g., Focus/Quest), as well as from the CDPH Viral and Rickettsial Disease Laboratory (VRDL). Should acute specimens test positive at commercial laboratories, healthcare providers are requested to promptly notify the Epidemiology Program and collect a convalescent specimen to submit to the Public Health Laboratory to confirm the diagnosis.

Recommendations for Healthcare Providers

Healthcare providers are requested to do the following:

- Evaluate for CHIKV any patient with acute onset of fever and polyarthralgia who recently returned from areas with known CHIKV transmission.
- Promptly report any person suspected to have CHIKV to the Epidemiology Program at (619) 692-8499 (Mon-Fri 8:00 AM – 5:00 PM) or (858) 565-5255 (after hours).
- Obtain acute and convalescent serum specimens and coordinate testing in consultation with the Epidemiology Program and the Public Health Laboratory (619) 692-8500.
 - Acute serum specimens should be drawn within 7 days of symptom onset. Convalescent serum specimen should be drawn after 10-30 days of symptom onset.
 - If submitting specimens to the Public Health Laboratory, collect 5-7 ml of blood in a serum separator tube (SST). Specimens should be allowed to coagulate, be centrifuged, and have the clot removed prior to shipping/transport.
 - The [CDPH VRDL General Submission Form](#) should be completed and sent with each specimen submitted to the Public Health Laboratory. Test results should be available 5-14 days after the specimen is received.
- Consider other possible causes of fever and joint pain when evaluating patients for CHIKV, especially those that are travel-related. For example, dengue virus and CHIKV infections are transmitted by the same mosquitoes, circulate in the same areas, and can cause occasional co-infections. As a precaution, patients with suspect CHIKV should be [managed as dengue](#) until dengue has been ruled out.
- Advise patients to take measures to prevent mosquito bites when traveling to areas with known CHIKV transmission. Patients should also be aware of the symptoms of CHIKV infection. No vaccine or medicine is available to prevent CHIKV infection or disease. The [CDC travel health webpage](#) is a valuable patient resource.

Clinicians are encouraged to print and distribute the [CDC poster](#) summarizing CHIKV information. Additional information on CHIKV for healthcare providers is available on the [CDC CHIKV website](#). Questions may be directed to County of San Diego Epidemiology Program at (619) 692-8499.

Thank you for your continued participation.

CAHAN San Diego

County of San Diego, Health & Human Services Agency
Epidemiology and Immunization Services Branch
Phone: (619) 692-8499, Fax: (858) 715-6458
Urgent Phone for pm/weekends/holidays: (858) 565-5255
E-mail: cahan@sdcounty.ca.gov
Secure Website: <http://cahan.ca.gov>
Public-Access Website: <http://www.cahansandiego.com>

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