



STATE OF HAWAII
DEPARTMENT OF HEALTH
P. O. BOX 3378
HONOLULU, HI 96801-3378

October 29, 2015

**MEDICAL ADVISORY: LOCALLY-ACQUIRED DENGUE INFECTION
IDENTIFIED ON THE ISLAND OF HAWAII**

Dear Healthcare Provider,

The Hawaii Department of Health (DOH) is investigating 2 confirmed and 4 probable cases of locally-acquired (autochthonous) dengue fever on the island of Hawaii. Confirmation testing by the U.S Centers for Disease Control and Prevention (CDC) is pending, and DOH investigation is ongoing. While our state is not endemic for dengue, it can be transmitted via the bites of *Aedes aegypti* and *albopictus* mosquitoes, the latter of which can be found throughout the state. Dengue infection is intermittently imported from endemic areas by infected travelers; this is the first cluster of locally-acquired dengue fever since the 2011 outbreak on Oahu.

Local environmental investigations have revealed minimal to no evidence of *Aedes* activity currently; however, clinicians should be aware of dengue and other mosquito-borne infections when patients present with compatible findings (i.e., fever, myalgias/arthralgias, rash, AND exposure to or bites from mosquitoes without alternative underlying etiology, especially with travel from an endemic area) and **report all such patients to DOH at the time dengue fever is first suspected.** Delay in reporting directly impedes identifying and abating potential areas of mosquito transmission and places the public's health at risk.

DOH requests healthcare providers report any patients without an alternative underlying etiology and presenting on or after September 1, 2015 with:

- Acute onset fever AND
- At least TWO (2) of the following:
 - Headache/retro-orbital pain
 - Nausea
 - Myalgias and/or arthralgias
 - Generalized maculopapular rash

Dengue fever presents 5–7 (range 3–10) days after a bite by an infected mosquito. Symptoms include high fever, arthralgias, myalgias, severe headache, retro-orbital eye pain, maculopapular rash, and mild hemorrhagic manifestations (e.g., petechiae). Mild cases may have only a nonspecific febrile syndrome. Uncomplicated dengue fever resolves within 2–7 days. In some, symptoms can progress to severe dengue, which can be fatal and present after initial fevers resolve. Hemorrhage and extensive plasma leakage, requiring critical, aggressive supportive care and monitoring, are characteristic. Early laboratory values in dengue fever typically demonstrate leukopenia and thrombocytopenia; patients with severe dengue can have an abruptly increased hematocrit.

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Treatment for dengue infection is supportive; patients should be monitored for potential progression to severe dengue. Diagnosis can be made by serological methods to detect IgM and neutralizing antibodies. Because dengue infection can cross-react with other mosquito-borne illnesses on serological testing, it is critical to **involve DOH as soon as possible obtain polymerase chain reaction (PCR) testing and/or confirmatory serological testing**. PCR testing generally can be performed on blood specimens to detect virus during the first 5–7 days of illness.

Individuals suspected or confirmed to have dengue fever should be instructed to stay indoors and avoid mosquito bites during their first week of illness (i.e., especially while febrile). Patients should be encouraged to aggressively control and eliminate mosquitoes around their homes and businesses by eliminating areas of standing water. Windows and door screens should be checked for holes/tears and repaired. Individuals should use mosquito repellents containing 20–30% DEET and wear long sleeves and pants when possible.

Please note dengue fever is an URGENT CATEGORY NOTIFIABLE CONDITION and must be reported by phone:

- Oahu (Disease Investigation Branch) (808) 586-4586
- Maui District Health Office (808) 984-8213
- Kauai District Health Office..... (808) 241-3563
- Big Island District Health Office (Hilo) (808) 933-0912
- Big Island District Health Office (Kona)..... (808) 322-4877
- After hours on Oahu (808) 566-5049
- After hours on neighbor islands..... (800) 360-2575 (toll free)

For more information about dengue, please refer to <http://health.hawaii.gov/docd/dib/disease/dengue/> or <http://www.cdc.gov/Dengue/>. Thank you for your assistance in our investigation and in protecting the health of our residents and visitors.

Sincerely,



Sarah Y. Park, M.D., F.A.A.P.
State Epidemiologist
Hawaii Department of Health

**** This message contains privileged communication between the Department of Health and clinicians and should not be shared with or forwarded to those not included among the original recipients. ****