

# Dengue 'Under-recognized' as Source of Febrile Illness in US

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Dengue is commonly considered to be a tropical scourge, but the mosquito-borne viral infection is present in the United States and may be under-recognized as a cause of potentially fatal acute febrile illness, according to public health experts.

The case of a 63-year-old woman who died from complications of dengue acquired in New Mexico or Texas in 2012 indicates that clinicians should consider a diagnosis of locally acquired or travel-associated dengue in certain circumstances, write Tyler Sharp, PhD, from the Centers for Disease Control and Prevention in Atlanta, Georgia, and colleagues.

"Clinicians in the United States should be aware of dengue and request diagnostic testing that includes both molecular and serologic diagnostics for patients with dengue-like symptoms. Competent DENV [dengue virus] vectors are present in most states, and importation of DENV via travelers has resulted in recent dengue outbreaks in Florida, Hawaii, and Texas," the authors write in an [article published](#) in the January 24 issue of the *Morbidity and Mortality Weekly Report*.

The authors also note that hemophagocytic lymphohistiocytosis (HLH), a potentially fatal hyperinflammatory syndrome, is a rare complication of dengue infection. A postmortem review of the patient's records showed that her case met the clinical case definition for HLH, and DENV 3 was detected in bone aspirate a month after her death.

"Clinicians in areas with endemic dengue should be aware of dengue-associated HLH because the clinical similarity of severe dengue and HLH might contribute to underrecognition of HLH," the authors write.

Dengue is caused by 1 of 4 viruses (DENV 1 through DENV 4) transmitted by mosquitoes, including species common in the United States. Characteristic symptoms include fever, headache, myalgia, and leukopenia. The associated myalgia is reportedly so painful that it has earned dengue the grim sobriquet "breakbone fever."

The nonspecific signs and symptoms of dengue may lead to a misdiagnosis of West Nile Virus (WNV), influenza, or other acute febrile illness. In addition, anti-DENV immunoglobulin M antibodies may be cross-reactive with anti-WNV antibodies, the authors caution.

"Clinicians should be aware of this possible crossreaction when evaluating patients with suspected WNV infection, especially those with recent travel to the tropics. Physicians and public health professionals in the United States should be vigilant for dengue, particularly in the context of ongoing WNV outbreaks and where competent DENV vectors (e.g., *Aedes aegypti* and *Aedes albopictus* mosquitos) are present," they write.

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