Dengue Fever – Information for Clinicians

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Suspect dengue cases should be reported to your county health department (CHD) immediately during business hours to ensure prompt mosquito control efforts (section 381.0031, Florida Statutes and Rule 64D-3, Florida Administrative Code).

Recent increases in travel-related dengue fever cases have been identified in Florida, particularly among travelers from Cuba. Dengue infection is caused by any of four distinct but closely related dengue virus (DENV) serotypes (called DENV-1, -2, -3, and -4). Dengue is one of the most frequent cause of acute febrile illness among returning U.S. travelers from the Caribbean, Central and South America, and Asia.

Transmission occurs through the bite of an infected mosquito. Dengue may also be transmitted from mother to fetus in utero or to neonate at parturition. **An infected person should avoid mosquito bites while ill to prevent infection of local mosquitoes.**

Incubation period is 3 to 14 days.

Clinical presentation can range from a mild non-specific febrile syndrome to classic dengue fever or "break-bone fever," or in the most severe forms of the disease (2–4% of cases), dengue hemorrhagic fever (DHF) and dengue shock syndrome (DSS). More than 20% of cases may be asymptomatic. Dengue should be considered when locally acquired infection is suspected or in persons who live in or have traveled to a dengue-endemic area in the two weeks prior to symptom onset and have **fever**. **Symptoms may be similar to COVID-19, so testing for both should be considered.**

Dengue fever signs and symptoms may include:

- Headache or retro-orbital pain
- Myalgia, bone pain, or arthralgia
- Anorexia
- Nausea
- Rash
- Thrombocytopenia
- Leukopenia

Hemorrhagic fever or shock symptoms may appear after the febrile phase and include abdominal pain or tenderness, persistent vomiting, mucosal bleeding, liver enlargement, clinical fluid accumulation, or laboratory results indicating an increase in hematocrit concurrent with a rapid decrease in platelets.

Risk factors for severe disease:

- Previously infected with another dengue virus
- Elderly
- Infants
- Sickle cell anemia
- Diabetes mellitus
- Chronic renal failure

Patients with suspected dengue fever should also be evaluated, tested and managed for possible Zika or chikungunya virus infection if travel was to areas where these viruses are present, as co-infection is possible.

Laboratory testing recommendations per the Centers for Disease Control and Prevention (CDC):

- Polymerase chain reaction **(PCR) is the preferred method of laboratory diagnosis for serum samples collected during the first seven days post-symptom onset**.
- NS1 antigen testing can also be performed within seven days post-symptom onset.
- Testing for DENV-specific IgM antibodies should be requested for serum specimens taken seven or more days after onset. It can take several days for dengue IgM antibody to be produced; diagnosis can be missed if only dengue IgM testing is performed during acute illness.
- Your CHD can provide guidance on how and when to submit samples to the Florida Department of Health (FDOH) Bureau of Public Health Laboratories.

Resources:

Florida Department of Health-Hillsborough County: 813-307-8010
FDOH: www.floridahealth.gov/diseases-and-conditions/dengue/index.html
CDC: www.cdc.gov/dengue/clinicallab/clinical.html (laboratory testing)
www.cdc.gov/dengue/training/cme.html (dengue clinician training)