



COMMONWEALTH of VIRGINIA

Department of Health

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Dear Colleague:

The January earthquake in Haiti has evoked an outpouring of compassion; with many good-hearted Virginians responding to help. Some, including many of you, have selflessly volunteered by traveling to Haiti to assist in the recovery. This week the U.S. Centers for Disease Control and Prevention (CDC) announced that they have received reports of dengue infection among relief workers returning from Haiti, where this viral disease is endemic.

I want to make sure you have access to up-to-date information concerning dengue. Many, if not most, practicing Virginia clinicians do not routinely come across dengue cases. The Virginia Department of Health (VDH) is sharing the following information to help you help your patients who may have been infected with dengue through travel to Haiti:

Symptoms of Dengue Fever

Dengue fever (DF), typically acquired by bites from infected mosquitoes, is characterized by high fever plus two or more of the following: headache, retro-orbital pain, joint pain, muscle or bone pain, rash, mild hemorrhagic manifestations (e.g., nose or gum bleed, petechiae, or easy bruising), and leukopenia. The incubation period for DF ranges from 3 to 14 days but is typically about one week. Illness may therefore be expected to occur while the workers are stationed in Haiti or after they return to the US. Most dengue fever cases are self-limited and can be treated with bed rest, acetaminophen, and oral fluids.

A small proportion of patients develop dengue hemorrhagic fever (DHF), which is characterized by the presence of resolving fever or a recent history of fever lasting 2–7 days, any hemorrhagic manifestation, thrombocytopenia (platelet count $<100,000/\text{mm}^3$), and abnormal vascular permeability evidenced by hemoconcentration, hypoalbuminemia, or abdominal or pleural effusions. DHF can result in circulatory instability or shock, and the risk for these complications may be increased among persons with prior dengue infection. Adequate management of DHF patients generally requires timely hospitalization and judicious administration of intravascular fluids and close monitoring of vital signs and hemodynamic status.

Recommendations

Clinicians seeing a patient who has an illness consistent with dengue and who has recently traveled to Haiti should:

1. **Immediately report suspected cases to your local health department.** Your local health department will help you with diagnostic and testing information. Local health department contact information is available at www.vdh.virginia.gov.
2. **Consult your local health department for uncertain dengue cases.** Your local health director will be able to help you work through those cases for which the likelihood of dengue is unclear. Contact your local health director through your local health district.
3. **Seriously consider laboratory testing to assist in prevention efforts.** VDH will arrange for free testing of suspected dengue cases. This testing will include arboviral testing at Virginia's Division of Consolidated Laboratory Services as well as submission and tracking of samples to the CDC. Initiation of supportive care should not be delayed pending results of laboratory testing. CDC confirmatory dengue testing is unlikely to be completed in a timeframe helpful for individual patient treatment decisions. Instead, laboratory results are used to inform primary prevention efforts within the patient's household and community. Commercial laboratory testing is available, but not always able to distinguish recent from past dengue infection.
4. **Collect specimens from patients who have symptoms consistent with dengue infection and who have traveled to Haiti within the past 30 days. Your local health department will work with you to arrange for free testing for those patients meeting case criteria.** Optimal diagnostic testing includes paired samples (2 cc. {ml} of centrifuged sera).

<i>Type of sample</i>	<i>Interval since onset of symptoms</i>
Acute	until day 5
Convalescent	6 to 30 days

5. **Complete a CDC Dengue Case Investigation Form with "Haiti Travel" printed on the heading of the form for all suspected cases and provide it to your local health department.** (<http://www.cdc.gov/Dengue/resources/caseformhaiti.pdf>)

Infected travelers also present a risk for potential local spread of dengue. The mosquito species that can transmit dengue in Virginia is the Asian tiger mosquito (*Aedes albopictus*), the most common nuisance mosquito species throughout our urban areas. Asian tiger mosquitoes have been the key vector in a number of large dengue outbreaks. They are just becoming active now; by mid-May, their biting populations will be quite evident in shady residential areas. Persons infected with dengue can infect feeding tiger mosquitoes starting from the day before through five to seven days after onset of symptoms. Anyone coming back from Haiti infected with dengue could potentially infect the local tiger mosquito population which could then pass it on to other people. Three states (Florida, Texas, and Hawaii) have had local dengue outbreaks in the last decade.

For More Information:

- Consult your local health department's district director with any questions about dengue.
- Additional information about dengue is also available at: <http://www.cdc.gov/dengue/> (includes fact sheet for providers).
- Call CDC's toll-free information line, 800-CDC-INFO (800-232-4636) TTY: (888) 232-6348, which is available 24 hours a day, every day.

Thank you for all you do to promote health in Virginia. Your responsiveness, dedication, and skills are truly admirable!

Sincerely,

A handwritten signature in cursive script, appearing to read "Karen Remley".

Karen Remley, MD, MBA, FAAP