



Information related to hepatitis E infection among refugees from Ethiopia

23 July 2015

Dear State Refugee Health Coordinator:

CDC has been notified of two refugees who were hospitalized in the US due to hepatitis E infection a few weeks after resettlement in the U.S. in April 2015. They arrived from the Tigray region of Ethiopia, where they had lived in Sheder camp since 2008. Both patients recovered quickly and were doing well when last assessed. The United Nations High Commissioner for Refugees (UNHCR) has reported an ongoing outbreak of Acute Jaundice Syndrome in parts of Ethiopia from which there is US resettlement. While risk is likely low, there is concern that refugees departing Ethiopia could be in the incubation stages of hepatitis E but still appear to be asymptomatic at time of departure.

Hepatitis E virus (HEV) causes acute viral hepatitis and is usually spread by the fecal-oral route mainly by drinking fecally contaminated water (similar to hepatitis A). The incubation period is 15–60 days (mean: 40 days). Most people with hepatitis E have minimal symptoms and recover completely. Common signs and symptoms of acute hepatitis include fever, fatigue, loss of appetite, nausea, vomiting, abdominal pain, jaundice, dark urine, clay-colored stool, and/or joint pain. Persons with hepatitis E will have elevated liver enzymes (i.e. AST, ALT), as well as an elevated bilirubin. In outbreak settings the overall case-fatality rate is $\leq 4\%$; however, for pregnant women, hepatitis E can result in serious illness and case fatality rate can reach 10%–30% among pregnant women when acquired during the third trimester of pregnancy. There is no treatment for hepatitis E beyond supportive care. Hepatitis E is preventable by provision of clean water and proper hygiene. Additional information about the disease can be found at: <http://www.cdc.gov/Hepatitis/HEV/HEVfaq.htm#section3>.

CDC is in close communication with the US Department of State, Bureau of Population, Refugees, and Migration and with physicians from the International Organization of Migration (IOM) to ensure that all refugees departing Ethiopia are monitored for symptoms associated with hepatitis E. Current protocol includes a five-day stay at the Addis transit center where refugees are assessed daily by a nurse and/or physician for communicable diseases of public health importance. IOM has been advised to ensure that high hygiene and sanitation standards are maintained at the transit center in Addis. Any refugee presenting with prodromal symptoms will be temporarily delayed from travel and closely observed. IOM will also counsel all pregnant women about the importance of seeking care if they develop symptoms during travel or upon arrival in the United States.

Refugees should not be routinely screened or tested for hepatitis E. However, if a refugee originating in Ethiopia presents with signs and symptoms suggestive of acute viral hepatitis their workup should include HEV testing in addition to evaluation for other hepatitis etiologies. There is no FDA-approved

HEV test in the United States, but some commercial laboratories offer the test. The Hepatitis Reference Laboratory of the Division of Viral Hepatitis at CDC can also assist with HEV serology testing (and PCR if clinically suggested). Any clinician suspecting hepatitis E in a refugee who arrived from the Ethiopia camps within three months of arrival can contact Eyasu Teshale, MD for information on how to obtain HEV testing at CDC. Dr. Teshale can be reached by email at eht4@cdc.gov or by phone at 404.319.1470.

CDC, with in-country partners, will continue to monitor the situation in Ethiopia and will follow up with additional information and recommendations, if necessary.

Sincerely,



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