



STATE OF MARYLAND

DHMH

Maryland Department of Health and Mental Hygiene

Larry Hogan, Governor - Boyd Rutherford, Lt. Governor - Van Mitchell, Secretary

December 30, 2015

Dear Colleagues,

In response to increased media attention, the Maryland Department of Health and Mental Hygiene (DHMH) is sending this communication to provide you with information regarding Zika virus, an arbovirus in the *Flaviviridae* family, which also includes dengue and West Nile viruses. Outbreaks of Zika have occurred in Africa, Southeast Asia, and the Pacific Islands. Zika virus is not currently found in the United States; however, cases of Zika have been reported in returning travelers. These imported cases might result in local spread of the virus in some areas of the United States; no cases have been reported in Maryland to date.

Zika virus is primarily transmitted to humans through the bite of infected *Aedes* species mosquitoes, which are aggressive daytime biters. Perinatal and possible sexual transmission have also been reported. Transfusion-associated transmission is theoretically possible, though to date, there are no reliable reports of this happening. The reservoir for Zika virus is unknown.

Approximately 20% of individuals infected with Zika virus will become ill. Characteristic clinical findings are acute onset of fever with maculopapular rash, arthralgia (mostly in the small joints of the hands and feet), or conjunctivitis. Other commonly reported symptoms include myalgia, headache, retro-orbital pain and vomiting. Clinical illness is usually mild with symptoms lasting for several days to a week. Severe disease requiring hospitalization is uncommon, and there have been no reported deaths to date.

Based on the typical clinical features, the differential diagnosis for Zika virus infection is broad. In addition to dengue, other considerations include leptospirosis, malaria, rickettsia, group A streptococcus, rubella, measles, and parvovirus, enterovirus, adenovirus, and alphavirus infections (e.g., Chikungunya, Mayaro, Ross River, Barmah Forest, O'nyong-nyong, and Sindbis viruses). Preliminary diagnosis is based on the patient's clinical features, places and dates of travel, and activities. Laboratory diagnosis is generally accomplished by testing serum or plasma to detect virus, viral nucleic acid, or virus-specific IgM and neutralizing antibodies.

There are no specific antiviral treatments or vaccines available for Zika virus disease. Treatment is supportive, and should include rest, fluids, antipyretics, and analgesics. Aspirin and other non-steroidal anti-inflammatory drugs (NSAIDs) should be avoided until dengue can be ruled out to reduce the risk of hemorrhage.

In May 2015, the first Zika virus infections were confirmed in Brazil. In October 2015, the Brazilian Ministry of Health started receiving reports of increased numbers of babies being born with microcephaly. Current data support a roughly ten-fold increase in microcephaly cases compared to the usual annual incidence in Brazil. Though some samples from babies with microcephaly have

tested positive for Zika virus, other affected babies have tested negative using the same testing techniques. Common causes of microcephaly include various maternal infections, genetic abnormalities, and in utero exposure to toxins. While several media reports have ascribed cases of microcephaly to maternal infection with Zika virus during pregnancy, this association has not been definitively established and is still under investigation. All travelers to Brazil and other Latin American countries are encouraged to take precautions to avoid mosquito bites, including using insect repellent and mosquito bed nets.

Although Zika virus disease is not nationally reportable in the United States, healthcare providers are encouraged to inquire about patients' travel histories and report suspected cases to their state or local health departments to facilitate diagnosis and mitigate the risk of local transmission. Currently, Zika virus testing is only performed by the Centers for Disease Control and Prevention (CDC) and must be coordinated through DHMH. If you feel you have a patient who warrants testing for Zika virus, please contact DHMH to discuss the case.

Please contact the Infectious Disease Epidemiology and Outbreak Response Branch at DHMH at (410) 767-6700 with any additional questions or concerns. For additional information on Zika virus, please see the enclosed fact sheet and the following CDC website: <http://www.cdc.gov/zika/>

Sincerely,



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Enclosure: Zika Virus Fact Sheet