

Zika Virus Disease, International Public Health Emergency
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On Monday February 1, 2016, the World Health Organization declared an International emergency, citing the Zika virus disease outbreaks in Brazil where health authorities have observed an increase in Guillain-Barré syndrome which coincided with Zika virus infections in the general public, as well as an increase in babies born with microcephaly in northeast Brazil.

Zika virus, a mosquito-borne flavivirus (Genus Flavivirus also include west Nile virus, dengue virus and yellow fever virus), is transmitted by *Aedes* mosquitoes, including *Aedes aegypti* and potentially *Aedes albopictus*, which are found in Texas and along the U.S.-Mexico Border. *Aedes* mosquitoes typically lay eggs in standing water in containers such as buckets, bowls, animal dishes, flower pots and vases. They are aggressive daytime biters and live indoors and outdoors near people.

The first laboratory confirmed case was reported in Brazil in May 2015, and by the end of January 2016, 26 countries from the Americas had been affected, including Puerto Rico and Mexico. Projections indicate that in a 12 month period there could be 3-4 million cases of Zika in the Americas. In the United States there are 35 travel-associated Zika virus disease cases reported, and no locally acquired vector-borne cases.

Transmission of Zika virus occurs in a human-mosquito-human cycle. Transmission is also associated with blood transfusion and sexual intercourse. Maternal-fetal transmission of Zika virus has been documented and the association to neurological diseases is currently under research. The U.S. Centers for Disease Control and Prevention has issued new recommendations for asymptomatic pregnant women to be tested after returning from affected areas, and for men with pregnant sex partners who live in or have traveled to Zika- affected areas to consistently and correctly use condoms during sex or abstain for the duration of the pregnancy.

The disease is usually mild with approximately 80 percent of those infected unaware of their infection. Severe presentations and associated mortality are uncommon. Symptoms appear 2 to 7 days after infected mosquito exposure, the most common are: fever with maculopapular rash, conjunctivitis, myalgia/arthralgia, malaise, headache, retro-orbital pain, and vomiting.

There is currently no vaccine. Treatment is symptomatic/supportive, oriented at relieving fever and pain.

To avoid local transmission, it is recommended that Zika virus infection cases or suspects avoid sustaining mosquito bites during the first 7 days following illness onset. Patients are also urged to eliminate mosquito breeding habitats around their homes.

Diagnostic and Laboratory testing instructions:

1. - Clinical illness is consistent with Zika virus disease if two or more symptoms (including acute onset of fever, maculopapular rash, arthralgia, or conjunctivitis) are present during or within 2 weeks of any time spent in an area with ongoing Zika virus transmission.
2. - Please notify the DSHS regional office and the Local Health Department if you have a suspected Zika virus case and would like to have specimens tested. Support will be provided for laboratory sampling requirements and shipment guidance.

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3. - After consultation with the health department, specimens should be sent to the DSHS laboratory in Austin, The specimens will be tested for chikungunya and dengue virus at the Texas Department of State Health Services (DSHS) laboratory while a split specimen is sent to the Centers for Disease Control and Prevention (CDC) for Zika testing.
4. - If a provider does not already have an account with the DSHS laboratory, they should call 512-776-7578 or submit the Submitter ID Request Form located at: http://www.dshs.state.tx.us/lab/mrs_forms.shtm. The completed Submitter ID Request Form can be faxed to 512-776-7533.
5. Extensive cross-reactivity would be expected in sample from DENV/ZIKV circulation areas. A positive IgM assay with either antigen should be confirmed using PRNT against both Zika virus and dengue virus as well as any other flavivirus that might be found in that area. Plaque reduction neutralization test (PRNT) are performed at the CDC and include any flavivirus (e.g. SLEV, ZIKV, WNV, etc.) that might be found in that geographic area (including travel areas) in order to confirm specific virus causing the infection.

The El Paso Department of Public Health invites physicians to register and report notifiable conditions electronically at:

<https://elpaso.phims.org/cmr/login.aspx>

Or by calling (915) 212-6520 or fax (915) 212-0170.

For references and more information on CDC Guidelines and Laboratory Criteria, please refer to the City of El Paso Department of Public Health website, Physicians-Provider and Zika links. www.ephealth.com