

! Zika Virus Infection (Local or Pregnant Cases)

Version 3.1 (March 18, 2016)

Merlin reporting code = 06010

Case report form (CRF): [Florida Confidential Vector-borne Disease Infection CRF](#)

MERLIN EXTENDED DATA REQUIRED

Upload ultrasound and other imaging reports, newborn's medical record, and other relevant records into Merlin

Background

Zika virus (ZIKV) is transmitted via mosquitoes. Most infections are asymptomatic; about 1 in 5 people infected with ZIKV become ill. The most common symptoms are fever, rash, joint pain, and conjunctivitis. The possibility of a link between ZIKV infection and Guillain-Barré syndrome is under investigation.

Clinical criteria for diagnosis

- An illness characterized by two or more of the following symptoms: fever (measured or reported), rash, arthralgia, or conjunctivitis
- OR
- Guillain-Barré syndrome meeting Brighton Collaboration level 1, 2, or 3.

Laboratory criteria for diagnosis

Confirmatory:

- Detection of viral RNA by reverse transcriptase polymerase chain reaction (PCR) in **two different specimens**: serum, cerebrospinal fluid (CSF), tissue, or other specimen (e.g., amniotic fluid, placenta, urine, semen, saliva);

OR

- Detection of viral RNA by PCR in **one specimen**: serum, CSF, tissue, or other specimen (e.g., amniotic fluid, placenta, urine, semen, saliva) **and either**:
 1. Detection of ZIKV IgM antibodies by enzyme immunosorbent assay (EIA) or immunofluorescent assay (IFA) in serum or CSF **and** ≥ 4 -fold difference in neutralizing antibody titers by plaque reduction neutralization test (PRNT) between ZIKV and dengue virus (DENV) or other flaviviruses endemic to the region where exposure occurred
- OR
2. Detection of ZIKV IgM antibodies by EIA or IFA in serum or CSF **and** negative or equivocal for DENV IgM antibodies;

OR

- Detection of ZIKV viral antigen by immunohistochemistry (IHC) in tissue.

Presumptive:

- Detection of ZIKV IgM antibodies by EIA or IFA in serum or CSF **and** ≥ 4 -fold difference in neutralizing antibody titers by plaque reduction neutralization test (PRNT) between ZIKV and dengue virus (DENV) or other flaviviruses endemic to the region where exposure occurred

OR

- All of the following:
 - Detection of ZIKV IgM antibodies by EIA or IFA in serum or CSF,
 - Negative or equivocal for DENV IgM antibodies, and
 - < 4 -fold difference in neutralizing antibody titers by PRNT between ZIKV and DENV or other flaviviruses endemic to the region where exposure occurred or no PRNT for neutralizing antibodies.

Supportive:

- Detection of viral RNA by PCR **in one specimen**: serum, cerebrospinal fluid (CSF), tissue, or other specimen (e.g., amniotic fluid, placenta, urine, semen, saliva)

OR

- Detection of ZIKV IgM antibodies by EIA or IFA in serum or CSF **and both of the following**:
 - Positive for DENV IgM antibodies **and**
 - <4-fold difference in neutralizing antibody titers by PRNT between ZIKV and DENV or other flaviviruses endemic to the region where exposure occurred or no PRNT for neutralizing antibodies.

Epidemiological criteria for diagnosisLocal infection:

Epidemiological link to a confirmed or probable case (e.g., sexual contact, blood transfusion, organ transplantation, similar local geographical location of residence [mosquito transmission]) and common differential diagnoses ruled out.

Pregnant woman:

- Recent travel to a country or region with ZIKV transmission

OR

- Epidemiological link to a confirmed or probable case (e.g., sexual contact, blood transfusion, organ transplantation, similar local geographical location of residence [mosquito transmission]) and common differential diagnoses ruled out.

Case classificationConfirmed:

A clinically compatible illness in a person with confirmatory laboratory evidence and appropriate epidemiological criteria.

Probable:

A clinically compatible illness in a person with presumptive laboratory evidence and appropriate epidemiological criteria.

Suspect:

- A person who does not meet clinical criteria but has confirmatory, presumptive, or supportive laboratory evidence and appropriate epidemiological criteria

OR

- A clinically compatible illness in a person with supportive laboratory evidence and appropriate epidemiological criteria.

Comments

Only about 1 in 5 people infected with Zika virus are symptomatic and some patients may not have fever. Zika fever, dengue fever, and chikungunya fever are difficult to differentiate clinically. It is also important to note that co-infections with these viruses can occur.

Cross-reaction with related flaviviruses (e.g., dengue, West Nile, yellow fever, Japanese encephalitis viruses) on serological tests is common and results may be difficult to interpret. Due to this cross-reactivity, it is important to ask if there has been any lifetime travel to a flavivirus-endemic country or vaccination for yellow fever or Japanese encephalitis viruses.

Clinicians should also consider testing for dengue and chikungunya fever for suspect cases of Zika fever if fever was reported. As testing capacity allows, all samples meeting the requirements for Zika fever PCR testing at the Bureau of Public Health Laboratories (BPHL) will also be tested for dengue

and chikungunya viruses if the patient reported fever. All samples collected in the first four days of illness and meeting standard requirements for dengue and chikungunya testing will also be tested for Zika virus by PCR if travel to a Zika fever endemic area is reported.

Acute and convalescent samples from people with infections believed to be Florida-acquired should be sent to BPHL. Acute samples from people with infections believed to be acquired outside Florida should also be sent to BPHL.