

Zika virus Guidance – Jan 25, 2016

Background:

The Public Health Agency of Canada and CDC Atlanta have issued a travel notice regarding the Zika virus that has been associated with birth defects in Brazil and other countries. Zika virus infection is transmitted by infected mosquitoes (*Aedes aegypti* and *albopictus*). Zika is a flavivirus, closely related to West Nile virus and dengue virus, but had been associated with less severe clinical illness.

As of January 22, 2016, the US CDC recommends that pregnant women avoid travel to destinations that are known to have Zika virus outbreaks. These are: Barbados, Bolivia, Brazil, Cape Verde, Colombia, Dominican Republic, Ecuador, El Salvador, French Guiana, Guadeloupe, Guatemala, Guyana, Haiti, Honduras, Martinique, Mexico, Panama, Paraguay, Puerto Rico, Saint Martin, Samoa, Suriname, and Venezuela.

The BC Centre for Disease Control's (BCCDC) Public Health Laboratory (PHL) has confirmed two BC cases that involved foreign travel: one from El Salvador and second from Columbia.

Zika virus symptoms and treatment:

So far, there is growing evidence of an association between Zika virus infection and microcephaly in the fetuses/neonates of infected women as well as with Guillain-Barre syndrome. Only about 1 in 5 people infected with Zika develop symptoms. Symptoms can include fever, headache, conjunctivitis and rash, along with joint and muscle pain. The illness is typically mild and lasts only a few days.

Treatment is supportive and can include rest, fluids, and use of analgesics and antipyretics. Fever should be treated with acetaminophen. Severe disease requiring hospitalization is uncommon.

Laboratory testing:

Zika virus RNA may be present in a patient's blood for about a week after symptom onset. If symptoms have resolved, diagnosis is based on the detection of Zika specific antibodies. There are no commercial diagnostic tests for Zika antibody. In addition, infection with other flaviviruses such as yellow fever virus, including yellow fever vaccination, dengue and West Nile virus can generate cross-reacting antibodies.

Testing is not recommended without a travel history to an area with Zika virus transmission. Pregnant women with a history of travel to an area with Zika virus transmission and who report two or more symptoms consistent with Zika virus infection (acute onset of fever, maculopapular rash, arthralgia, or conjunctivitis) during or within 2 weeks of travel, or who have ultrasound findings of fetal microcephaly or intracranial calcifications, should be tested for Zika virus infection.

With an appropriate travel history, and in consultation with a BCPHL microbiologist, the placenta can be tested for Zika virus in cases of stillbirth/congenital anomaly and testing of amniotic fluid can also be performed in the appropriate context.

Sample collection instructions:

- 1) During acute symptomatic infection collect:
 - a. 5ml EDTA purple top blood tube
 - b. 5 ml gold top serum separator tube
- 2) If symptoms have resolved collect:
 - a. 5 ml gold top serum separator tube only

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Please provide both the travel and clinical history, including the date of onset of symptoms. The onset date is extremely important to ensure appropriate testing.

Send samples with relevant history to the BCCDC Public Health Laboratory.

Advice to British Columbians:

Pregnant women travelling to South America should read travel health advisories released by the Public Health Agency of Canada. Precautions against mosquito bites such as use of mosquito repellents, nets, etc., are recommended throughout the day and not just at dawn and dusk (see URL below outlining mosquito repellents). As BC does not have the specific mosquito vector, local transmission is very unlikely and thus the local public health implications will be limited.

Further information:

<http://www.phac-aspc.gc.ca/phn-asp/2016/zika-eng.php>

http://www.cdc.gov/mmwr/volumes/65/wr/mm6503e1er.htm?s_cid=mm6503e1er_e

http://www.paho.org/hq/index.php?option=com_topics&view=article&id=427&Itemid=41484&lang=en

http://ecdc.europa.eu/en/healthtopics/zika_virus_infection/factsheet-health-professionals/Pages/factsheet_health_professionals.aspx

<http://www.cdc.gov/westnile/faq/repellent.html> (the US EPA does not recommend any additional precautions for repellent use by pregnant or nursing women)

http://www.paho.org/hq/index.php?option=com_content&view=article&id=11605%3A2016-paho-statement-on-zika-transmission-prevention-&catid=8424%3Acontent&lang=en

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