

**ZIKA VIRUS (ZIKV) INTERIM GUIDANCE – UPDATE**

August 15, 2016

**Context:** This advisory provides updated information on Zika virus (ZIKV), areas of risk, and transmission. Recommendations continue to evolve as more information is available. As of 15 Aug 2016 there have been 16 lab-confirmed cases of ZIKV in Alberta: 15 from areas currently experiencing outbreaks and one in 2013. All cases were travel-related.

**Areas of risk:** See the [Centers for Disease Control and Prevention](#) website for countries where ZIKV is currently circulating. A map of confirmed cases in the Americas is available from [Pan American Health Organization](#) (see links below). Though the risk to travellers returning from Rio de Janeiro is low, healthcare providers should still consider ZIKV infection in this group. **The state of Florida in the United States has recently reported cases of ZIKV infections transmitted by local mosquitoes in one area in South Florida (see [CDC map](#)), specifically Miami-Dade and Broward Counties.**

**Travel recommendations:** Pregnant women and those considering pregnancy should discuss their travel plans with their healthcare provider and avoid travel to the areas where ZIKV is circulating, including South Florida. If travel cannot be postponed, all travellers to at-risk areas should take strict mosquito bite prevention measures by wearing light-coloured, long-sleeved, loose fitting tucked-in shirts, long pants, hats and shoes/boots (not sandals); using insect repellents, permethrin-treated clothing and gear; and sleeping in well-screened or air-conditioned rooms.

**Transmission:** ZIKV is primarily transmitted through the bite of infected mosquitoes, chiefly *Aedes aegypti*. These mosquitoes are not found in Canada.

- **Pregnancy:** ZIKV can be passed from a pregnant woman to her fetus during pregnancy/delivery.
- **Sexual transmission:** ZIKV can be spread through sex, including vaginal and anal sex. Using condoms and other barriers with any partner can reduce the chance of sexual transmission. Current research indicates ZIKV remains in semen longer than other bodily fluids including vaginal fluids, urine and blood. Therefore, travellers from an area of risk should use condoms or with **any** partner for **six months** after their return.
  - **Pregnant women and their partners:** Couples should use condoms while in a ZIKV risk area, and for the duration of pregnancy.
  - **Couples planning a pregnancy:** Women planning a pregnancy should **wait at least two months** after return from an area of ZIKV risk before trying to conceive. Couples where the male partner has travelled to an area of risk should delay trying to conceive for **six months** after their return.
- **Transmission through blood and semen donations:** The virus has been reported to be transmitted through blood transfusions from infected donors. Canadian Blood Services employs a 21-day deferral for blood donors returning from travel to ZIKV-affected areas.: Men who have returned from Zika affected countries should postpone semen donations for 6 months.

**Clinical Illness:** About 20-25% of those infected with ZIKV will have symptoms. Symptoms typically include two or more of: acute onset of fever, maculopapular rash, myalgia/arthralgia, or conjunctivitis and present during or within two weeks of travel to circulating risk area. Symptoms are usually mild and last 2 to 7 days.

**Microcephaly, GBS and ZIKV infection:** Current evidence indicates that ZIKV is a cause of microcephaly, ophthalmic and other CNS congenital defects. As a result, pregnant women and those considering pregnancy should take precautions as noted above. In addition, neurological complications of infection such as Guillain-Barré syndrome (GBS) and meningoencephalitis have been reported from several countries affected by ZIKV outbreaks.

## ACTIONS:

Post-travel to areas where ZIKV is currently circulating ([www.cdc.gov/zika/geo/active-countries.html](http://www.cdc.gov/zika/geo/active-countries.html)):

- 1. Symptomatic non-pregnant traveller/patient with potential ZIKV exposure:** (see Laboratory Testing #2 below)
  - Consider testing for ZIKV, dengue and chikungunya if clinically warranted.
  - Provide supportive care including acetaminophen to manage fever; avoid NSAIDs and steroids.
- 2. Symptomatic pregnant traveller/patient with potential ZIKV exposure:**
  - Test for ZIKV, dengue and chikungunya virus (see Laboratory Testing #2 below)
  - Refer to Maternal-Fetal-Medicine (MFM) for consultation at (780) 735-4813 or on-call MFM through the Royal Alexandra Hospital switchboard at (780) 735-4111. Please include: countries of travel; date of return; date of symptom onset; current symptoms; all previous U/S reports.
- 3. Asymptomatic pregnant traveller**
  - Test for ZIKV (see Laboratory Testing #3 below)
  - Refer to Maternal-Fetal-Medicine (MFM) for consultation at (780) 735-4813 or on-call MFM through the Royal Alexandra Hospital switchboard at (780) 735-4111. Please include: countries of travel; date of return; date of symptom onset; current symptoms; all previous U/S reports)

## Laboratory testing:

Refer to: [http://www.provlab.ab.ca/partner\\_updates.htm](http://www.provlab.ab.ca/partner_updates.htm) for the most recent Prov Lab bulletin on ZIKV testing. Use the ProvLab Zoonotic Serology requisition to order: [www.provlab.ab.ca/requisition\\_history\\_form.htm](http://www.provlab.ab.ca/requisition_history_form.htm). **A complete history is required, including: travel history (areas visited within the past 3 months); date of return to Canada; date of onset of symptoms; nature of symptoms; pregnancy status.**

For asymptomatic pregnant females, serological testing should be carefully considered: ZIKV IgM antibody cross reacts with other flaviviruses such as dengue or yellow fever, making lab result interpretation challenging; the confirmatory assay (PRNT) may take weeks to complete. PRNT assays may be positive for more than one virus, making it impossible to determine the virus responsible.

1. Asymptomatic non-pregnant patient	No testing performed
2. Symptomatic patient (pregnant or non-pregnant)	Molecular Testing: <ul style="list-style-type: none"><li>▪ Blood (Lavender Top) - Order ZIKV RT-PCR <b>up to 10 days</b> after symptom onset</li><li>▪ Urine – Order ZIKV RT-PCR <b>up to 14 days</b> after symptom onset</li></ul> AND Serology: <ul style="list-style-type: none"><li>▪ Order SST (Gold Top) blood for ZIKV IgM</li><li>▪ Send convalescent blood <b>at least 14 days later</b></li></ul>
3. Asymptomatic pregnant female	Testing may be considered <b>between 2 and 12 weeks</b> after returning from area of current ZIKV circulation: <ul style="list-style-type: none"><li>▪ Serology only - Order SST (Gold Top) blood for ZIKV IgM for TWO samples collected at least 14 days apart within this 2 to 12 week period AND ONLY one SST (Gold Top) if the first sample was collected at about 12 weeks after return</li></ul>

## Additional Resources:

- Alberta Health – ZIKV. [www.health.alberta.ca/health-info/zika-virus.html](http://www.health.alberta.ca/health-info/zika-virus.html)
- Alberta Health Services. [www.ahs.ca/zika](http://www.ahs.ca/zika)
- Centers for Disease Control and Prevention. [www.cdc.gov/zika/geo/active-countries.html](http://www.cdc.gov/zika/geo/active-countries.html); [www.cdc.gov/zika/intheus/florida-update.html](http://www.cdc.gov/zika/intheus/florida-update.html)
- Public Health Agency of Canada – ZIKV. <http://www.healthycanadians.gc.ca/diseases-conditions-maladies-affections/disease-maladie/zika-virus/index-eng.php>
- Canadian Committee to Advise on Tropical Medicine and Travel. [www.healthycanadians.gc.ca/publications/diseases-conditions-maladies-affections/committee-statement-treatment-prevention-zika-declaration-comite-traitement-prevention/index-eng.php?id=zika\\_virus\\_16\\_phac\\_catmat](http://www.healthycanadians.gc.ca/publications/diseases-conditions-maladies-affections/committee-statement-treatment-prevention-zika-declaration-comite-traitement-prevention/index-eng.php?id=zika_virus_16_phac_catmat)

This letter has been posted on the AHS-MOH webpage [www.albertahealthservices.ca/medstaff/Page7082.aspx](http://www.albertahealthservices.ca/medstaff/Page7082.aspx).