

## ZIKA VIRUS (ZIKV) INTERIM GUIDANCE – UPDATE

### Context:

This advisory provides updated information on Zika Virus (ZIKV) and **testing of asymptomatic pregnant** returning travelers. Recommendations will evolve as more information is available. Alberta has four laboratory-confirmed cases of Zika virus to date - one in 2013 and three in 2016 – all related to travel to areas with ZIKV risk.

**Areas of risk:** See the [Centers for Disease Control and Prevention](#) website for countries where ZIKV is circulating. A map of confirmed cases in the Americas is available from the [Pan American Health Organization](#) website.

**Travel recommendations:** Pregnant women and those considering becoming pregnant should discuss their travel plans with their health care provider, and consider postponing travel to areas where ZIKV is circulating. If travel cannot be postponed, then strict mosquito bite prevention measures should be followed. All travellers to these areas should use mosquito bite prevention measures (wear long-sleeved loose fitting shirts, long pants, hats and shoes/boots (not sandals); use insect repellents, permethrin-treated clothing and gear; sleep in well-screened or air-conditioned rooms).

**Microcephaly and ZIKV infection:** Despite reports of a potential association between ZIKV and microcephaly, a causal relationship has not yet been confirmed. Research is ongoing to investigate this association further. As a result, pregnant women and those considering pregnancy should take precautions as noted above.

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

**Sexual transmission** of ZIKV is believed to be rare, but there is some evidence of persistence of ZIKV in semen for weeks. Until more information is available, it is reasonable for males returning from an area of ZIKV transmission to use condoms with any partner who is or could become pregnant for two to three months after their return, as a precaution. Condom use for the duration of the pregnancy may also be a reasonable consideration.

Canadian Blood Services has recently announced a 21-day deferral for blood donors returning from travel to ZIKV-affected areas.

### **Clinical Illness:**

About 20-25% of those infected with ZIKV will have symptoms

**Symptomatic illness:** Two or more symptoms (acute onset of fever, maculopapular rash, myalgia/arthralgia, or conjunctivitis) present during or within two weeks of travel to a country in which ZIKV is circulating.

### 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)):**

**Symptomatic non-pregnant traveller:** (see Laboratory Testing #2 below)

- Consider testing for ZIKV, dengue and chikungunya virus if clinically warranted
- Provide supportive care including acetaminophen to manage fever

**Symptomatic pregnant traveller:**

- Test for ZIKV, dengue and chikungunya virus (see Laboratory Testing #2 below)
- Refer to Maternal-Fetal-Medicine (MFM) for consultation and fetal ultrasound (U/S) recommendations [North Central physicians: call the MFM clinic at (780) 735-4813 or on-call MFM through the RAH switchboard at (780) 735-4111. South Central physicians: refer to MFM or on-call MFM through the FMC switchboard at (403) 944-1110, ext 2]. Please include: countries of travel; date of return; date of symptom onset; current symptoms; all previous U/S reports.

**Asymptomatic pregnant traveller**

- Test for ZIKV (see Laboratory Testing #3 below)
- Refer to Maternal-Fetal-Medicine (MFM) for fetal ultrasound (U/S) recommendations [North Central physicians: call the MFM clinic at (780) 735-4813 or on-call MFM through the RAH switchboard at (780) 735-4111. South Central physicians: refer to MFM or on-call MFM through the FMC switchboard at (403) 944-1110, ext 2.] Please include: countries of travel; date of return; date of symptom onset; current symptoms; all previous U/S reports)

**Laboratory testing:**

For asymptomatic pregnant females, serological testing should be carefully considered: the ZIKV IgM assay may cross react with other flaviviruses such as dengue (acute or remote), or yellow fever (recent vaccine), making interpretation challenging; the confirmatory assay (PRNT) may take weeks to complete.

1. Asymptomatic non-pregnant patient	No testing performed
2. Symptomatic patient (pregnant or non-pregnant)	<p>If symptom onset is &lt;=10 days:</p> <ul style="list-style-type: none"> <li>▪ Molecular: Order Zika virus RT-PCR on urine and EDTA (lavender top) blood, AND</li> <li>▪ Serology: Order SST (Gold Top) blood for Zika virus IgM. Send convalescent blood at least 14 days later.</li> </ul> <p>If symptom onset is &gt;10 days:</p> <ul style="list-style-type: none"> <li>▪ Serology: Order SST (Gold Top) blood for Zika virus IgM. Send convalescent blood at least 14 days later.</li> </ul>
3. Asymptomatic pregnant female	<p>Testing may be considered between 2 and 12 weeks after returning from area of current ZIKV circulation:</p> <ul style="list-style-type: none"> <li>▪ Serology only - Order SST (Gold Top) blood for Zika virus 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>

**Notify the ProvLab Virologist-on-call [Calgary 403-944-1200; or Edmonton 780-407-8822] if molecular testing is required. A complete history is required including: pregnancy status and gestational age, symptoms, date of onset of illness, areas visited within the past 2 weeks, and date of return to Alberta.**

**Additional Resources:**

- [Alberta Health – Zika Virus. 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)
- [Public Health Agency of Canada – Zika Virus. www.phac-aspc.gc.ca/phn-asp/2016/zika-eng.php](http://www.phac-aspc.gc.ca/phn-asp/2016/zika-eng.php)
- [Canadian] Committee to Advise on Tropical Medicine and Travel. [healthy Canadians.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://healthy Canadians.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)
- [World Health Organization - Zika Virus. www.who.int/emergencies/zika-virus/situation-report/en/](http://www.who.int/emergencies/zika-virus/situation-report/en/)
- [Pan American Health Organization – Zika Virus. www.paho.org/hq/index.php?option=com\\_content&view=article&id=11585&Itemid=41688&lang=en](http://www.paho.org/hq/index.php?option=com_content&view=article&id=11585&Itemid=41688&lang=en)

This letter has been posted on the AHS-MOH webpage <http://www.albertahealthservices.ca/medstaff/Page7082.aspx>.