



## Health, Healthy Living and Seniors

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Dear Health Care Provider:

### **Health Alert: Zika virus outbreak**

#### **Key Points**

- The WHO recently noted that based on mounting evidence there is a strong scientific consensus that Zika virus infection is a cause of Guillain-Barre syndrome, birth defects (i.e. microcephaly) and other neurological disorders.
- Recommend that pregnant women avoid travel to areas where Zika virus is currently circulating, while those attempting to conceive should delay travel.
- Given the increasing evidence regarding the role of sexual transmission of Zika virus, caution is recommended and abstinence or condom use is recommended for 2 months (women) and 6 months (men) upon return from an affected area.
- Pregnant women with a history of travel to or residence in an area affected by ongoing Zika virus transmission, should use condoms or practice abstinence for the duration of pregnancy.
- Testing for Zika virus is now available in Canada, however as capacity is limited priority will be given to pregnant patients, both symptomatic and asymptomatic who have relevant travel history.
- As symptoms of Zika infection can mirror those of influenza, travelers are strongly encouraged to obtain a seasonal vaccination before their departure.
- Preventing mosquito bites, during the daytime and early evening, is key to minimizing risk of infection.
- Rule out Dengue virus before treating symptoms.

We are alerting health care providers in Manitoba of the ongoing Zika virus (ZIKV) outbreak in the Americas.

#### ***Zika virus:***

ZIKV is a flavivirus primarily transmitted by the bite of infected *Aedes* mosquitoes. Most people infected are asymptomatic (~80%), and for those who develop infection it is typically mild and self-limiting, resolving within 7 days after symptom onset. Symptoms usually appear 3 – 12 days following the bite of an infected mosquito and commonly include: acute onset of low-grade fever (38.5°C or lower), maculopapular rash, arthralgia or nonpurulent conjunctivitis. Less common non-specific symptoms have included: myalgia, weakness, lethargy and headaches. ZIKV infection is also associated with severe outcomes such as birth defects (microcephaly), Guillain-Barre syndrome and other neurological disorders.

#### ***Zika virus & pregnancy:***

**The World Health Organization recently noted that based on the mounting evidence**

(i.e. observational, cohort and case-control studies) **there is a strong scientific consensus that ZIKV is a cause of Guillain-Barre syndrome, birth defects** (i.e. microcephaly) **and other neurological disorders**. Research continues to better define the risk of developing neurological disorders following ZIKV infection, and to investigate the biological mechanisms that lead to said disorders.

Infection with ZIKV can occur in any trimester. The incidence of ZIKV infection in pregnant females in the current outbreak is unknown, and data is limited. However there is no evidence to suggest that pregnant patients are either more susceptible or develop more severe presentations.

**Pregnant women with a history of travel to an area currently impacted by the outbreak who report two or more of the common symptoms (mentioned above) during travel or within two weeks after returning should be tested for ZIKV infection.** Those pregnant women with travel history to Zika-affected countries (or areas) with any abnormalities found on routine ultrasound examination of the fetus (including microcephaly or intracranial calcifications) should be tested for ZIKV infection regardless of the presence of prior signs or symptoms compatible with ZIKV infection. For additional information regarding pregnant patients & ZIKV infection and evaluation and testing of infants with possible congenital ZIKV refer to the Interim Guidelines developed by the US CDC ([http://www.cdc.gov/mmwr/volumes/65/wr/mm6512e2er.htm?s\\_cid=mm6512e2er\\_w](http://www.cdc.gov/mmwr/volumes/65/wr/mm6512e2er.htm?s_cid=mm6512e2er_w) and <http://www.cdc.gov/mmwr/volumes/65/wr/mm6507e1.htm>)

#### **Affected countries:**

As of March 24, 2016 local transmission, facilitated by competent *Aedes* mosquitoes, has been documented in thirty-three countries in the Americas (for current list see [www.gov.mb.ca/health/publichealth/diseases/zika.html](http://www.gov.mb.ca/health/publichealth/diseases/zika.html)). Given the broad distribution of *Aedes* vectors, their close association with human habitation and their aggressive biting behavior, the number of ZIKV affected areas is expected to further increase in these regions. Areas at risk of ZIKV outbreak align with the range of the broadly distributed vector.

A number of the affected regions, particularly those in Central America and the Caribbean, are sun destinations and it is possible that travel related cases would be observed. Further, ZIKV also circulates in some African, Asian and Oceanic nations.

#### **Laboratory Diagnosis:**

Serological testing (for ZIKV antibodies) is now available in Canada at the National Microbiology Laboratory. For asymptomatic pregnant patients with travel history to ZIKV affected areas, and for non-pregnant patients who meet the clinical **AND** travel criteria, the acceptable specimens are **serum** (clotted blood in red-topped tubes) **and a urine specimen** in sterile container (with no preservative taken within 15 days of onset of signs and symptoms for ZIKV RNA testing). Serum sample is the preferred specimen but it may be accompanied by urine where there are signs and symptoms. Serum can also be used for Dengue and Chikungunya serology. If patient is pregnant, please make sure that is clearly indicated on the requisition. It is preferred that specimens are collected and shipped to Cadham Provincial Laboratory (CPL, using General Requisition) within 24 hours of collection on cold packs (refrigerated). Please clearly provide the following on the requisition: Travel history, travel dates, signs and symptoms, date of onset, and if applicable, abnormal findings on ultrasound (<http://www.cdc.gov/mmwr/volumes/65/wr/pdfs/mm6503e3er.pdf>). Please call CPL to discuss with their Microbiologists as required.

**Prevention:**

As there is neither a vaccine, nor specific medications to treat ZIKV, **prevention is key**. The two principal mosquito vectors of ZIKV, *Aedes aegypti* and *Ae albopictus*, are widely distributed throughout the tropics and sub-tropics, highly adapted to living in close association with humans and prefer to bite during the day and early evening. Individuals are encouraged to adopt prevention measures when travelling through an area affected by the ongoing ZIKV outbreak, or an area at risk.

Travelers to outbreak regions, or those at risk, should use appropriate mosquito repellents, such as those containing DEET or Icaridin, wear protective clothing and use bed nets.

Additionally every effort should be made to keep mosquitoes out of living areas by ensuring doors are closed, window screens are in good repair and using air conditioning.

Given the strengthening association between ZIKV and birth defects (microcephaly and incomplete brain development), it is **recommended that pregnant women avoid travel to areas at risk and areas affected by the current ZIKV outbreak**. For women planning pregnancy, consultation with a health care provider and postponement of travel to an area at risk or affected by the ongoing ZIKV outbreak should be strongly considered. Where travel cannot be postponed prevention measures should be strictly followed.

While research as to the role of sexual transmission continues, caution is recommended. Women should avoid becoming pregnant during travel to an area affected by the ongoing ZIKV outbreak, or an area at risk, and for two months after return from said area(s). For men who show no symptoms, condom use is recommended for a period of 6 months after returning from an area affected by the ongoing ZIKV outbreak, or an area at risk. In addition, pregnant women residing in or returning from a ZIKV affected area(s), or an area at risk, should use condoms or practice abstinence for the duration of the pregnancy.

As ZIKV co-circulates with Dengue and Chikungunya viruses in the afore-mentioned regions, it is important to consider testing for all three agents and **avoid using aspirin or other NSAIDs before Dengue virus infection is ruled** out to reduce the possibility of bleeding.

Additional ZIKV information can be found on the Manitoba Health, Healthy Living and Seniors website: [www.gov.mb.ca/health/publichealth/diseases/zika.html](http://www.gov.mb.ca/health/publichealth/diseases/zika.html)

Sincerely,

*Original Signed By Richard Rusk*

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