



Health, Healthy Living and Seniors

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Dear Health Care Provider:

Health Alert: Zika virus outbreak

Key Points

- Strongly recommended to postpone travel to affected regions if pregnant or attempting to become pregnant
- Testing should be reserved for pregnant individuals and those with severe presentation who have relevant travel history and symptoms. Further as symptoms of Zika infection can mirror those of influenza, travelers are strongly encouraged to obtain a seasonal vaccination before their departure.
- Prevention of mosquito bites 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 outbreak in the Caribbean, Central and South America.

Zika virus:

Zika virus 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. There have been a small number of cases of Guillain-Barre syndrome reported in association with Zika virus infection but the causality is still under investigation.

Zika virus & pregnancy:

A speculative association between Zika virus infection and birth defects has been suggested due to a 20-fold increase in microcephaly rates in Brazilian states experiencing the outbreak in 2015 compared with the rate in 2014. Intensive investigations are ongoing to prove or dispel the potential causality of Zika virus infection in birth defects.

Infection with Zika virus can occur in any trimester. The incidence of Zika virus 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 Zika virus infection.

Those pregnant women with travel history to Zika-affected countries with any abnormalities found on routine ultrasound examination of the fetus (including microcephaly or intracranial calcifications) should be tested for Zika virus infection regardless of the presence of prior signs or symptoms compatible with Zika virus infection. For additional information regarding pregnant patients & Zika virus infection and evaluation and testing of infants with possible congenital Zika virus refer to the Interim Guidelines developed by the US CDC (<http://www.cdc.gov/mmwr/volumes/65/wr/mm6502e1.htm> and <http://www.cdc.gov/mmwr/volumes/65/wr/mm6503e3.htm>)

Affected countries:

As of January 29, 2016 local transmission, facilitated by competent *Aedes* mosquitoes, has been documented in twenty-three countries: Barbados, Bolivia, Brazil, Colombia, Dominican Republic, Ecuador, El Salvador, French Guiana, Guadeloupe, Guatemala, Guyana, Haiti, Honduras, Martinique, Mexico, Nicaragua, Panama, Paraguay, Puerto Rico, Saint Martin, Suriname, U.S. Virgin Islands and Venezuela. Given the broad distribution of *Aedes* vectors, their close association with human habitation and their aggressive biting behavior, the number of affected countries is expected to further increase.

It should be noted that a number of the affected regions, including those in Central America and the Caribbean, are sun destinations at this time of year and it is possible that travel related cases would be observed. It should be noted that Zika virus also circulates in some Asian countries especially in Southeast Asia.

Laboratory Diagnosis:

Serological testing (for Zika virus antibodies) is not routinely available in Canada at this time but would become available in the near future. For female 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 14 days of onset of signs and symptoms for Zika virus RNA testing. 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 Zika virus, **prevention is key**. The two principal mosquito vectors of Zika virus, *Aedes aegypti* and *Aedes 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 countries with evidence of local transmission.

Travelers to outbreak regions 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 possible association between Zika virus and birth defects (microcephaly and incomplete brain development), pregnant mothers should consult with a health care provider to assess the risks. It is recommended that **pregnant women postpone travel** to areas where Zika virus is circulating, and if travel cannot be postponed prevention measures should be strictly followed. Given the fact that Zika virus 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 Zika virus information can be found on the Manitoba Health, Healthy Living and Seniors website: www.gov.mb.ca/health/publichealth/diseases/zika.html

Sincerely,

Original Signed By Richard Rusk

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