



CST INFORMATION SHEET ON ZIKA VIRUS AND TRANSPLANTATION

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What is Zika virus?

Zika virus is a flavivirus transmitted by the *Aedes aegypti* mosquito. The mosquito primarily bites during the day and is the same type of mosquito that transmits Dengue and Chikungunya viruses. The virus can also be transmitted by blood transfusion. The virus has quickly spread in South and Central America and travel-related infections have been seen in the United States and Canada. For up to date maps on Zika affected areas, see <http://www.cdc.gov/zika/geo/>

What are the consequences of Zika virus?

Zika virus infection can cause fever, rash, joint pain, myalgias, headache and conjunctivitis. It has an incubation period of 3-12 days. Viremia from Zika virus is thought to last about 10 days. In most people, Zika virus infection is asymptomatic and others have a self-limited illness. There may be an association of Zika virus with Guillain Barre syndrome and with congenital abnormalities (i.e. microcephaly) if a pregnant woman becomes infected.

What is the impact of Zika virus on organ donation?

Zika virus has the potential to be transmitted by blood transfusion and organ transplantation. It is important to take a travel history and symptoms of febrile illness in the donor. Zika infection may be asymptomatic in donors as well. Results from laboratory tests for Zika will not be available in time to make decisions regarding deceased organ donation and routine donor screening is not recommended. Therefore, in deceased donors with a relevant recent travel history the risks of Zika transmission should be weighed against the benefits of organ transplantation on a case by case basis. In living donors with a recent travel history consideration should be given to deferring donation for a period of time (unknown but possibly in the range of 1-2 months; more information may become available over time).

What is the impact of Zika virus on transplant patients?

The severity of disease that Zika can cause in transplant patients is unknown. It may be asymptomatic, mild or severe. There may also be coinfections with other viruses that can be transmitted by the same mosquito. If you suspect Zika virus infection in a transplant recipient, please consult your local infectious disease or transplant infectious disease expert for further management.

What is the testing for Zika virus in suspected infections?

Zika virus testing should be done in transplant recipients suspected of having infection. Depending on how long the patient has been ill, PCR can detect viremia in the early phases of the disease (up to 7-10 days after onset of illness). PCR testing can be done on serum/plasma, urine, CSF, or tissue.

Serologic testing for IgM antibodies and PRNT (Plaque reduction neutralization testing) can also be performed in the acute (≥ 4 days after symptom onset) and convalescent ($\geq 2-3$ weeks) phase.

Consult your local lab for appropriate specimen collection and handling. Testing is sent to the National Microbiology Laboratory in Winnipeg and results can take 2-8 weeks depending on the extent of testing.

Is there treatment?

There is currently no antiviral or vaccine for Zika virus. Treatment is supportive care.

Are there any infection control precautions for those infected with Zika virus?

Zika virus cannot be transmitted person-to-person. Therefore, there are no specific precautions. The American Association of Blood Banks has suggested that persons who have travelled to Zika-affected areas defer blood donation for a period of 28 days.

What do I tell a transplant recipient who wants to travel to a Zika affected area?

Transplant recipients should carefully consider whether travel is necessary. If traveling, they should be counseled regarding mosquito protection measures such as wearing full-sleeved clothing, using mosquito nets, and using insect repellent with DEET. They should promptly contact a health care provider if symptoms develop while travelling or after returning.