

EDUCATION CORNER

IMPACT OF ZIKA VIRUS ON ORGAN DONATION & TRANSPLANTATION

Background

- Zika is a flavivirus transmitted primarily by infected mosquitoes of the *Aedes* species which also spread Chikungunya and dengue
- Alert issued in May 2015 regarding first confirmed case in Brazil
- Previously reported in tropical Africa, Southeast Asia and the Pacific Islands
- Now reported in more than 20 countries and territories:
 - ⇒ [CDC map of active transmission locations](#)
- Local transmission in U.S. had been limited to Puerto Rico and U.S. Virgin Islands

The U.S. does have the mosquito species that can spread the Zika virus after biting an infected person and the virus can be transmitted sexually. The number of cases of Zika infection will likely increase in the U.S. due to travel to areas experiencing recent outbreaks. The CDC states that, though these may result in a local spread of the virus in the U.S., it is unlikely that the mainland U.S. will experience a widespread transmission of Zika.

General Clinical Information

- Asymptomatic in 80% of infected people, according to the CDC
- Most common symptoms are fever, rash, joint pain or conjunctivitis; possible muscle pain or headache;
- Incubation period of two to seven days
- Resolution of symptoms typically within a week; hospitalization or death are rare
- Maternal infections during pregnancy confirmed in several infants born with microcephaly in Brazil; knowledge of the link between the two is evolving
- Cases of Guillain-Barré syndrome reported following suspected Zika infection; relationship of Zika and Guillain-Barré unknown
- No vaccine nor treatment currently available

Zika and Transplantation Patients

- Severity of symptoms in immunocompromised patients unknown
- Risk of transmission through transplantation not yet known; theoretically possible through blood transfusion
- Unknown which organs may be affected or for how long infection may remain present

Impact on Evaluation of Potential Donors

The OPTN/UNOS Ad Hoc Disease Transmission Advisory Committee (DTAC), the American Society of Transplantation (AST), and the American Society of Transplant Surgeons (ASTS) recommend:

- A focus on recent travel history, epidemiological risk factors, and recent symptoms; highlight information during organ offers
- Donation to pregnant or child-bearing age women be deferred from deceased donors if there is a history of travel to a Zika-endemic area within 28 days prior to donation
- Donation from living donors with Zika infection be deferred where possible
- Risk of donor-derived infection be weighed against benefit of transplantation
- Transplant centers advise standard travel precautions to pre- and post-transplant patients considering travel to a Zika-endemic area; patients who are pregnant or trying to become pregnant advised to follow CDC travel guidance



References:

UNOS Transplant Pro, *Guidance for organ donation and transplantation professionals regarding the Zika virus* (Feb 4, 2016)

<https://www.transplantpro.org/news/opos/guidance-for-organ-donation-and-transplantation-professionals-regarding-the-zika-virus/>

Centers for Disease Control and Prevention, *Zika Virus*
<http://www.cdc.gov/zika/index.html>

We recommend checking the CDC site regularly for updates and new developments.

This inservice is also available on The Alliance blog: www.organdonationalliance.org/education-corner-zika-virus-donation-transplantation/

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