

## Editorial

# Zika Virus-An International Public Health Emergency

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Zika virus disease is caused by the Zika virus, which is spread to people primarily through the bite of an *Aedes Aegypti* mosquito. It is an international public health emergency even if its suspected link to severe birth defects has not been proved completely.

It was first discovered in 1947 from the Zika forest, Uganda. In May 2015, the Pan American Health organization issued an alert on first confirmed Zika virus notification in Brazil. On February 2016, the WHO declared it as an international public health emergency.<sup>1</sup>

## Causes

Zika virus is transmitted to people through the bite of an infected mosquito from *Aedes* Genus, mainly *Aedes Aegypti* in tropical and subtropical regions. This is the same mosquito that transmits dengue, chikungunya and yellow fever.

Zika virus has been detected in blood, urine, amniotic fluids, semen, saliva as well as body fluids found in the brain and spinal cord<sup>1</sup>.

## Incubation period

The incubation period of Zika virus disease is not clear, but is likely to be a few days.

## Signs and symptoms

The most common symptoms are fever, rash, joint pain, conjunctivitis. The patient won't even know about the infection as there is no symptoms exhibited as such. The most common symptoms may last from days to week and is in a mild stage.

Other symptoms include muscle pain, tiredness and headache. The symptoms usually draw to a close in 2-7 days.

This infection during pregnancy can cause serious birth defects like microcephaly and other fetal brain defects<sup>2</sup>.

## Diagnosis

Diagnosis is based on symptoms and the person's recent history. Laboratory testing can confirm the presence of Zika virus through PCR (polymerase chain reaction) and virus location from blood samples. However, it may not be reliable as the virus could cross react with other viruses such as dengue and yellow fever.<sup>2</sup>

## Treatment

Zika virus disease is mild and requires no specific treatment. The one who is infected can,

- get plenty of rest
- drink more fluids to prevent dehydration
- take medicines to reduce fever and pain

If the symptoms are not resolving, they should seek medical care and advise. No vaccine is currently available<sup>2</sup>.

## Prevention and control

Mosquitos and their breeding sites pose a significant risk factor for Zika infection. Prevention and control relies on reducing mosquitoes through source reduction and preventing mosquito bites.

This can be done by using insect repellent, wearing clothes that can prevent mosquito bites, using physical barriers such as closed doors and windows, sleeping under mosquito nets etc. It is important to empty, clean or cover containers that can hold water such as buckets, flower pots or tires, so that places where mosquitoes can breed are removed.

During outbreaks, health authorities may advise to spray insecticides. Travellers must take the basic precautions to protect themselves from mosquito bites.

Pregnant women living in areas with ongoing Zika virus transmission should follow the same prevention guidelines for the general people. Along with that they should attend their regular antenatal visits. All people who have been infected with Zika virus or living in or returning from areas where local transmission of Zika virus occurs and their sexual partners especially pregnant women should practice safer sexual practices.

To prevent Zika through sex, couples should use condom every time they have sex or not to have sex during the pregnancy<sup>3</sup>.

## Complications

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Transmission of Zika virus from pregnant women to their fetuses has been documented. Based on the recent research findings, there is scientific consensus that Zika virus is a cause of microcephaly and Guillain-Barré syndrome. There may be a link between Zika and other neurological abnormalities such as: myelitis or brain abnormalities in the absence of microcephaly. Scientists do not exclude the possibility that other factors may combine with Zika virus infections to cause such neurological disorders<sup>1,4,5</sup>.

Zika virus has been detected in breast milk but currently there is no evidence that the virus is transmitted to babies through breastfeeding. WHO recommends exclusive breastfeeding for 6 months<sup>1</sup>.

Zika has been isolated in human semen, and one case of possible person –person sexual transmission has been described. The virus can stay in semen longer than in blood. However more evidence is needed to confirm whether sexual contact is a means of Zika transmission<sup>3</sup>.

## References

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