

Fact sheet on Zika Virus Disease
[Updated 3rd February 2016]

Introduction

Zika virus disease is an emerging viral disease transmitted through the bite of an infected *Aedes* mosquito. This is the same mosquito that is known to transmit infections like dengue and chikungunya. Zika virus was first identified in Uganda in 1947. Outbreaks of Zika virus disease have been recorded in Africa, the Americas, Asia and the Pacific. During large outbreaks in French Polynesia and Brazil in 2013 and 2015 respectively, national health authorities reported potential neurological and auto-immune complications of Zika virus disease.

Currently, World Health Organization has reported 22 countries and territories in Americas from where local transmission of Zika virus has been reported. Microcephaly in the newborn and other neurological syndromes (Guillain Barre Syndrome) have been found temporally associated with Zika virus infection. However, there are a number of genetic and other causes for microcephaly and neurological syndromes like Guillain Barre Syndrome.

Zika virus disease has the potential for further international spread given the wide geographical distribution of the mosquito vector, a lack of immunity among population in newly affected areas and the high volume of international travel. As of now, the disease has not been reported in India. However, the mosquito that transmits Zika virus, namely *Aedes aegypti*, that also transmits dengue virus, is widely prevalent in India.

Causative Agent

Zika virus disease is caused by Zika virus which belongs to the genre Flavivirus. this viruse is transmitted by the bite from an infected mosquito hence also called arboviruses. The reservoir of infection is not known.

Transmission

Zika virus is transmitted to people through the bite of an infected mosquito from the *Aedes* genus, mainly *Aedes aegypti*, which usually bite during the morning and late afternoon hours. Transmission from a infected pregnant mother to her baby during pregnancy or around the time of birth is also now being seen as a distinct possibility.

Signs and Symptoms

The incubation period (the time from exposure to symptoms) of Zika virus disease is not clear, but is likely to be a few days. The symptoms are similar to other arbovirus infections such as dengue, and include fever, skin rashes, conjunctivitis, muscle and joint pain, malaise, and headache. These symptoms are usually mild and last for 2-7 days. Only one out of four infected people develops symptoms of the disease.

Zika virus infection should be suspected in patients reporting with acute onset of fever, maculo-papular rash and arthralgia, among those individuals who travelled to areas with ongoing transmission during the two weeks preceding the onset of illness. Based on the available information of previous outbreaks, severe forms of disease requiring hospitalization is uncommon and fatalities are rare.

Recently in Brazil, local health authorities have observed an increase in Zika virus infections in the general public as well as an increase in babies born with microcephaly in northeast Brazil. Agencies investigating the Zika outbreaks are finding an increasing body of evidence about the link between Zika virus and microcephaly. However, more investigation is needed before we understand the relationship between microcephaly in babies and the Zika virus. Other potential causes are also being investigated.

Diagnosis

Zika virus is diagnosed through PCR (polymerase chain reaction) and virus isolation from blood samples. Diagnosis by serology is not recommended.

Prevention

Aedes mosquitoes and their breeding sites pose a significant risk factor for Zika virus infection. Prevention and control relies on reducing mosquitoes through source reduction (removal and modification of breeding sites) and reducing contact between mosquitoes and people.

For source reduction of mosquito breeding, it is important to empty, clean or cover containers that can hold water such as buckets, flower pots or tyres, so that places where mosquitoes can breed are removed. During outbreaks, spraying of insecticides should be carried out as per guidelines of National Vector Borne Disease Control Programme.

Aedes mosquitoes bite during day time. Hence personal protection is important. This can be done by using insect repellent; wearing clothes (preferably light-coloured) that cover as much of the body as possible; using physical barriers such as screens, closed doors and

windows; and sleeping under mosquito nets. Special attention and help should be given to those who may not be able to protect themselves adequately, such as young children, the sick or elderly.

Anyone who is living in or traveling to an area where Zika virus is found, who has not already been infected with Zika virus is at risk for infection, including pregnant women. Travellers should take the basic precautions described above to protect themselves from mosquito bites.

Treatment

Zika virus disease is usually relatively mild and requires no specific treatment. People sick with Zika virus should get plenty of rest, drink enough fluids, and treat pain and fever with paracetamol. If symptoms worsen, they should seek medical care and advice. There is currently no vaccine available.