

Zika Virus Infection



Causative agent

Zika virus infection is a mosquito-borne disease caused by Zika virus.

Clinical features

Most people infected with Zika virus infection are asymptomatic. For patients with symptoms, they commonly present with rash, fever, conjunctivitis, muscle and joint pain, malaise and headache. These symptoms are generally mild and usually last for 2 – 7 days.

Zika virus infection during pregnancy is a cause of microcephaly and other congenital malformations in the infant. Congenital malformations can occur following both symptomatic and asymptomatic infection. Zika infection in pregnancy can also cause complications such as fetal loss, stillbirth and preterm birth.

Zika virus infection can also cause Guillain-Barré syndrome, neuropathy and myelitis.

Mode of transmission

Zika virus is primarily transmitted to humans through the bite of an infected *Aedes* mosquito. *Aedes aegypti*, which is currently not found in Hong Kong, is considered the most important vector. Other *Aedes* mosquito species such as *Aedes albopictus*, which is commonly found in Hong Kong, are also potential vectors.

Zika virus can also be transmitted from mother to fetus during pregnancy, as well as through sexual contact, transfusion of blood and blood products, and organ transplantation.

Incubation period

The incubation period of Zika virus infection ranges from 3 – 14 days.



Management

There is no specific antiviral treatment for Zika virus infection. Treatment is directed primarily at relieving the symptoms, including using anti-pyretics, analgesics and replacement of fluids. Aspirin and other nonsteroidal anti-inflammatory drugs should be avoided until dengue fever is ruled out because of bleeding risk.

Prevention

At present, there is no vaccine available against Zika virus infection. The best preventive measure is to avoid mosquito bites and prevent mosquito proliferation. Special attention should be given to prevention of mosquito bites among pregnant women, women preparing for pregnancy and young children. The public is also advised to take precautions to prevent sexual transmission of Zika virus.

Prevention of mosquito bites

1. Wear loose, light-coloured, long-sleeved tops and trousers.
2. Use DEET-containing insect repellent on exposed parts of the body and clothing.
 - Pregnant women and children of 6 months or older can use DEET-containing insect repellent. In general, use DEET of up to 30% for pregnant women and up to 10% for children. For children who travel to countries or areas where mosquito-borne diseases are endemic or epidemic and where exposure is likely, children aged 2 months or above can use DEET-containing insect repellents with a concentration of DEET up to 30%
3. Take additional preventive measures when engaging in outdoor activities:
 - Avoid using fragrant cosmetics or skin care products
 - Re-apply insect repellents according to instructions

Prevention of mosquito proliferation

1. Prevent accumulation of stagnant water

- Change the water in vases once a week
 - Avoid using saucers underneath flower pots
 - Cover water containers tightly
 - Ensure air-conditioner drip trays are free of stagnant water
 - Put all used cans and bottles into covered dustbins
2. **Control vectors and reservoir of the diseases**
- Store food and dispose of garbage properly

For more information about control and prevention of mosquito breeding, please visit the website of Food and Environmental Hygiene Department (FEHD) https://www.fehd.gov.hk/english/pestcontrol/handbook_prev_mos_breeding.html



Advice for travellers

1. Take measures to avoid mosquito bites. For details about the use of insect repellents and the key points to be observed, please refer to 'Tips for using insect repellents'. (<https://www.chp.gov.hk/en/features/38927.html>).
2. If going to areas of active Zika virus transmission, especially for pregnant women, persons with immune disorders or severe chronic illnesses and women planning to conceive or their male sexual partners, arrange a consultation with a doctor at least 6 weeks before the trip, and have extra preventive measures to avoid mosquito bites
3. If travelling in rural areas of active Zika virus transmission, carry a portable bed net and apply permethrin (an insecticide) on it. Permethrin should NOT be applied to the skin. Seek medical attention promptly if feeling unwell.
4. Travellers returning from areas of active transmission should apply insect repellent for at least 3 weeks after arrival in Hong Kong. If feeling unwell e.g. having a fever, the person should seek medical advice promptly, and provide travel details to the doctor.

Prevention of sexual transmission

1. All travellers should practice safer sex (including correct and consistent use of condoms) or abstain from sexual activity during travel to areas of active transmission.
2. Male and female travellers returning from areas of active transmission should practice safer sex or abstinence for at least 3 months and 2 months respectively upon return.

Advice for pregnant women

1. Pregnant women should pay close attention to the infection risk if they travel to areas with active transmission and strictly follow recommendations to prevent mosquito bites and sexual transmission during travel.
2. Pregnant women are advised to use DEET-containing insect repellent during travel to areas with active transmission.
3. Sexual partners of pregnant women living in or returning from areas of active transmission should practice safer sex or abstain from sexual activity throughout pregnancy.
4. Pregnant women returning from areas with active transmission are advised to:
 - Attend antenatal follow up regularly and inform the attending doctor about recent travel history;
 - Observe for symptoms of Zika virus infection and seek medical advice as soon as possible if feeling unwell;
 - Apply insect repellent for at least 3 weeks after arrival in Hong Kong.

