Zika

Traveler Summary

Key Points

- Zika virus (ZIKV) infection is acquired through the bite of day-biting mosquitoes. Low-level, active, viral circulation continues in several Latin American and Caribbean countries but surveillance is incomplete and the actual presence or absence of current transmission is unknown. Male-to-female and male-to-male sexual transmission can uncommonly occur in countries with or without mosquito-borne transmission.
- Risk is high for travelers in populated urban and residential areas of affected regions.
- Symptoms are mild and include a rash, low-grade fever, red eyes, itching, headache, and muscle and joint pain, several of which overlap with COVID-19.
- Consequences of infection include Guillain-Barré syndrome (GBS), which is an acute neurological condition. Infection during pregnancy is strongly associated with congenital malformations in the fetus.
- Prevention includes wearing long sleeves and long pants as well as observing personal protective measures effective against mosquito bites. Additional measures, including trip cancellation or safer-sex practices, are necessary for pregnant women or couples trying to conceive before, during, or immediately after the trip.
- No vaccine or preventive drugs are available.
- Testing (as part of preconception screening) is not recommended for nonpregnant females or males that are symptom-free upon return from ZIKV-affected areas; available tests do not provide accurate results in this scenario.
- Returned travelers with symptoms or pregnant partners should seek expert medical assistance.

Introduction

Zika is a viral infection transmitted via the bite of infected ***Aedes aegypti*** mosquitoes in certain countries of Southeast Asia and in some Latin American and Caribbean countries with low-level, active, viral circulation. Zika virus (ZIKV) infection is closely related to dengue, West Nile virus infection, and Japanese encephalitis. Symptoms appear in approximately 1 of 5 infected persons and usually present as an influenza-like syndrome, which is often mistaken for dengue or chikungunya. Infection of the fetus in pregnant women leads to high rates of fetal malformations.

Some symptoms of ZIKV infection overlap with those of COVID-19. Although ZIKV outbreaks have subsided dramatically, sporadic ZIKV cases and outbreaks have been confirmed. Cases may also be missed in areas that are focusing on diagnosing COVID-19 cases and outbreaks.

Risk Areas

Since 2015, mosquito-transmitted ZIKV has been reported in 87 countries and territories, including a 2015-17 epidemic in almost all countries in Latin America and the Caribbean. Low-level, active, viral circulation continues in several Latin American and Caribbean countries but surveillance is incomplete and the actual presence or absence of current transmission is unknown.

Over 5,000 US travel-associated cases were reported during the 2015-17 outbreak. Since 2015, more than 52 cases of sexually transmitted ZIKV infection have been reported.

Transmission

ZIKV is transmitted to humans through the bite of infected ***Aedes aegypti*** mosquitoes that acquire the virus by feeding on infected nonhuman primates and other infected humans. Transmission via blood transfusion, during pregnancy or delivery, and during sexual activity (male-to-female and male-to-male) may occur; sexual transmission has been reported in at least 13 countries. Live ZIKV usually remains in the blood of an infected person for about 10 days. Dead ZIKV breakdown products have been detected in the saliva, urine, and breast milk of ill persons, without proof of any risk of infecting others. Mosquito-borne ZIKV transmission in areas above 2,300 m (7,500 ft) is believed not to occur.

Risk Factors

Risk is highest for all persons residing in or visiting a ZIKV risk area. In nonaffected areas, sex partners of infected males returning from affected areas are at a low risk (1%) of acquiring infection. Transmission through blood transfusion has not been documented in nonaffected areas.

Symptoms

Symptoms most commonly develop 3 to 14 days (median: 5 days) following exposure and include rash (reddened skin covered with small bumps), headache, malaise, muscle aches, joint pain, eye redness, and occasionally, fever; several of which overlap with COVID-19. The illness is usually mild, with symptoms lasting 4 to 7 days.

In the early stages of the disease, ZIKV infection is indistinguishable from dengue and chikungunya, which often coexist in the same locations; coinfections are usually rare.

Consequences of Infection

ZIKV infection can lead to GBS (an autoimmune neurological complication that can occur after a viral infection), which occurs in an estimated 2 to 3 per 10,000 infections. GBS may occur within 5 to 10 days after onset of symptoms of ZIKV infection.

ZIKV infection during pregnancy causes congenital Zika syndrome in 5% to 14% of fetuses (including tiny heads in 4%–6%), and up to 7% of infections will result in fetal loss. Of the symptom-free newborns, a small percentage will develop more subtle medium- and long-term complications that may not be detectable at birth. A fetus may be at risk during all trimesters of pregnancy, although the risk of adverse fetal effects is highest during the first trimester.

Need for Medical Assistance

Medical assistance is not normally necessary because serious complications are extremely rare. Most ZIKV infections resolve spontaneously over a few days. Self-medication with acetaminophen may help relieve some symptoms.

Pregnant women with symptoms consistent with ZIKV infection during or within 2 weeks of travel to risk areas, or who have ultrasound findings of fetal microcephaly or calcifications in the head, should seek expert medical care and testing as soon as possible upon returning home. Pregnant women without symptoms may be tested from 2 to 12 weeks after returning from a risk area and those with possible sexual exposure to ZIKV may be tested.

Testing of any traveler (including pregnant women) returned from non-ZIKV affected areas is not recommended.

At this time, testing men for the purpose of assessing risk for sexual transmission and testing asymptomatic women contemplating pregnancy are not recommended.

Prevention

General

Personal protective measures are the main prevention strategy. No vaccine or preventive medications are available.

Mosquitoes that transmit ZIKV (***Aedes*** spp.) can bite throughout the day but have peak biting activity in the early morning and late afternoon and evening. Travelers (especially pregnant women) should be especially vigilant in applying repellent during peak biting activity times.

Pregnant women and their babies are at special risk from the consequences of vector-borne diseases. Wear clothing covering as much skin as practicable, leaving only extremities, head, and neck exposed. Pregnant and breastfeeding women may use DEET, picaridin, IR3535, OLE, and 2-undecanone but these should not be applied directly to the nipple area to prevent ingestion by breastfeeding children. DEET, which may be more effective, has been shown (in 1 short-term study) to be safe in the second and third trimesters of pregnancy when used at concentrations of 20% or lower; however, the use of DEET in the first trimester has not been well studied. Although no evidence exists to indicate that the use of DEET or picaridin by pregnant or breastfeeding women poses a health hazard to unborn babies or breastfeeding children, no long-term follow-up studies are available. Botanical repellents are ineffective.

Treat outer clothing, boots, tents, and sleeping bag liners with permethrin (or other pyrethroid) when traveling in a very high-risk area for ZIKV infection. Additionally, containers with stagnant water can serve as breeding sites for mosquitoes and should be removed from the proximity of human habitation whenever possible. See ***Insect Precautions***.

Pregnant women (in any trimester) or those trying to conceive should discuss specific travel recommendations with a travel health provider. The level of risk varies by country, and travel recommendations for pregnant women are tiered by risk level.

Many other typical tropical infections pose greater risk than ZIKV infection for pregnant women and their unborn children.

Sexual Transmission

Travelers going to ZIKV-affected areas should abstain from sex or observe safer-sex practices (consistent male or female condom use, nonpenetrative sex, and a reduced number of sexual partners) every time.

Pregnant couples

Couples where 1 or both partners (symptomatic or asymptomatic) have returned from or reside in a ZIKV risk area should abstain from sex or observe safer-sex practices for at least the duration of the pregnancy when the female partner is pregnant. Travelers with symptoms should ideally abstain from sex pending test results and seek expert advice if ZIKV infection is proven.

Persons living in areas with active transmission

Persons living in ZIKV-affected areas should discuss appropriate timing of potential pregnancies with their provider and make an informed decision about whether or when to become pregnant, to prevent possible adverse pregnancy and fetal outcomes.

Persons living in areas with no active transmission, but for travelers returning from an area with active transmission

Women and men who are not trying to conceive should consider abstaining from sex or observing safer-sex practices for a period of 3 months (males) and 2 months (females) upon return regardless of the presence or absence of symptoms. Some couples may choose to wait shorter or longer periods after possible ZIKV exposure depending on individual circumstances (e.g., age, fertility, or details of exposure), clinical judgment, and an assessment of risks and expected outcomes. No studies have reported infectious ZIKV particles in semen specimens obtained 38 days or more after symptom onset in men.

Testing (as part of preconception screening) is not recommended for nonpregnant males or females that are symptom-free upon return from ZIKV-affected areas; available tests do not provide accurate results in this scenario.

No waiting period is necessary for travelers returning from negligible-risk areas.

Travel Considerations

Pregnant travelers and travelers contemplating conception

Travel recommendations for pregnant women are tiered by individual country risk levels and should be discussed with their provider. Women and men trying to conceive should consider postponing nonessential travel to significant-risk areas.

Considerations for these travel recommendations for pregnant travelers and travelers contemplating conception include: 1) the uncertainty of an association between congenital Zika syndrome and the pre-2007 ZIKV strains present in Asia and Africa and 2) the very low-to-negligible risk of infection for travelers going to long-standing endemic countries not reporting recent outbreaks. Many other tropical infections pose greater risk to pregnant women and their unborn children in these countries.