

Factsheet Japanese Encephalitis



What

JE is a viral disease caused by the JE Virus (JEV), which is transmitted by certain mosquitoes that feed primarily at dusk and during the night. The virus mainly affects pigs and wading birds, which can carry high levels of the virus. Humans can become infected in areas where the virus circulates and where there are large populations of animals, particularly pigs

Who

Japanese Encephalitis (JE) is endemic across much of Asia and parts of the Western Pacific region. Travelers who are immunologically naïve and visit these endemic areas can be at risk of contracting the disease, regardless of age. However, young children and older adults are particularly vulnerable and more likely to develop severe neurological complications from the infection.

Where and when

In temperate regions of Asia, JEV transmission is seasonal, with peak months varying by location. However, human cases typically peak during the summer and fall. In subtropical and tropical areas, transmission can occur year-round, often with a surge during the rainy season. The highest risk for infection is in rural, agricultural regions of Asia, where the virus is most commonly transmitted.

Prevention

To reduce the risk of JE among travelers to endemic regions, measures to prevent mosquito bites are essential. This may be done by use of insect repellents, wearing protective clothing, sleeping under insectnets or in airconditioned rooms. Avoid mosquito-breeding areas.

Additionally, a vaccine is available and offers substantial protection for a limited period, especially in high-risk settings. The decision to vaccinate depends on factors such as location, duration of stay, season, type of accommodations, and planned activities.



Treatment

Treatment for patients with Japanese Encephalitis (JE) focuses on supportive care. This includes managing intracranial pressure, ensuring adequate blood flow to the brain, controlling seizures, and preventing further complications.

There is no specific antiviral treatment for JE, so care is aimed at symptom management and supporting the patient's recovery.

Symptoms

The majority of human infections with Japanese encephalitis (JE) are asymptomatic. After an incubation period of 5 to 15 days, if symptoms do occur, they are usually nonspecific and may include fever, diarrhea, and rigors, followed by headache, vomiting, and generalized weakness. Over the next few days, more severe symptoms may develop, including mental status changes, focal neurologic deficits, movement disorders, or even coma.

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In case of infection

Less than 1% of Japanese encephalitis (JE) infections result in symptomatic neurologic disease. However, when neurologic disease occurs, it is often severe, with a high mortality rate of about 25%. Among survivors, 30-50% may experience long-term neurologic symptoms, including weakness, cognitive impairment, recurrent seizures, and behavioral problems.