

Japanese Encephalitis

Japanese encephalitis (JE) is the main cause of viral encephalitis in many countries of Asia. The JE virus is a flavivirus related to dengue, yellow fever and West Nile viruses. The virus exists in a transmission cycle between mosquitoes, pigs and/or water birds. Humans get infected when bitten by an infected mosquito. The disease is predominantly found in rural and periurban settings. Most JE virus infections are mild (fever and headache) or without apparent symptoms, but approximately 1 in 200 infections results in severe disease characterized by rapid onset of high fever, headache, neck stiffness, disorientation, coma, seizures, spastic paralysis and death. The case fatality rate can be as high as 30% among those with disease symptoms; 20-30% of those who survive suffer permanent neuropsychiatric sequelae. In areas where the JE virus is common, encephalitis occurs mainly in young children because older children and adults have already been infected and are immune.

2011 estimate of the global disease burden

There are four main types of JE vaccines currently in use: inactivated mouse brain-based vaccines, inactivated cell-based vaccines, live attenuated vaccines, and live recombinant vaccines.

JE vaccination should be integrated into national immunization schedules in all areas where JE is recognized as a public health priority.

Monitoring vaccine impact in settings where JE vaccine has been introduced is a research priority.