

## **Japanese Encephalitis in Malaysia: an overview and timeline**

### **ABSTRACT**

Japanese encephalitis (JE) is a vector-borne zoonotic disease caused by the Japanese encephalitis virus (JEV). It causes encephalitis in human and horses, and may lead to reproductive failure in sows. The first human encephalitis case in Malaya (now Malaysia) was reported during World War II in a British prison in 1942. Later, encephalitis was observed among race horses in Singapore. In 1951, the first JEV was isolated from the brain of an encephalitis patient. The true storyline of JE exposure among humans and animals has not been documented in Malaysia. In some places such as Sarawak, JEV has been isolated from mosquitoes before an outbreak in 1992. JE is an epidemic in Malaysia except Sarawak. There are four major outbreaks reported in Pulau Langkawi (1974), Penang (1988), Perak and Negeri Sembilan (1998–1999), and Sarawak (1992). JE is considered endemic only in Sarawak. Initially, both adults and children were victims of JE in Malaysia, however, according to the current reports; JE infection is only lethal to children in Malaysia. This paper describes a timeline of JE cases (background of each case) from first detection to current status, vaccination programs against JE, diagnostic methods used in hospitals and factors which may contribute to the transmission of JE among humans and animals in Malaysia.

**Keyword:** Japanese encephalitis; Outbreak; Human; Animals; Malaysia