

Revised: August 2010

Japanese Encephalitis (JE) Update

Japanese Encephalitis (JE) is a serious illness that affects the brain. Although many people get infected with the JE virus without becoming ill, for those who do show symptoms, 1/3rd will recover, 1/3rd will die and 1/3rd will suffer serious brain damage. The virus that causes JE is carried by culex mosquitoes which breed in flooded rice fields. Mosquitoes feed on infected pigs and wild birds and infected mosquitoes transmit JE virus to humans and animals while feeding. The disease is inherently rural in nature. JE is endemic in the Terai (southern Nepal that borders with India), with maximum number of cases occurring in the western districts of Banke, Kanchanpur and Kailali. An immunization program targeting children in the affected districts has decreased the number of cases in these areas. It is now known that JE is firmly established in the Kathmandu valley with several cases each year being admitted to different area hospitals. The highest risk months for JE are August, September and early October of each year.

This raises the question as to whether all residents and tourists to Kathmandu Valley should receive the vaccine against JE.

Short term travelers who will stay in Kathmandu for less than a month who will go trekking are the lowest risk individuals and we do not feel that they need to be immunized against JE. Travelers who will reside in Kathmandu for more than a month particularly in the post-monsoon months of August to October are recommended to obtain the JE vaccine. Persons who will be living in known JE endemic areas such as most of the Terai and those living in Kathmandu particularly in the rural areas of the valley should be immunized against JE.

Japanese Encephalitis (JE) Vaccines

New Vero cell JE vaccine (Ixiaro) now available in the West (US, Canada, EU) and Australia, is given as 2 injections, 28 day apart in persons >17 years of age. We do not stock this vaccine due to the very high cost. We are continuing to use the Live Chengdu SA-14-14-2 strain vaccine. It is a very safe vaccine with no serious side effects like encephalitis or hypersensitivity reactions reported in over 200 million doses used in Asia. Single shot offers protection for up to 5 years with booster every 5 years. In children, manufacturers recommend 2 shots one year apart when started at 9 month-1 year of age. It is important to note that JE exists only in Asia and parts of Torres Strait in Australia. The live SA 14-14-2 vaccine made by Chengdu Institute in China has been available in Nepal since 1999. We also stock the inactivated Korean Green Cross vaccine which is given as a series of 3 injections on 0,7 and 30 days.

Since JE is transmitted by the bite of an infected mosquito, mosquito bite prevention measures are just as important to protect against this disease.