

INSIGHT FOR RABIES PREVENTION AMONG TRAVELLERS

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Rabies is present in all continents with the exception of Antarctica. More than 95% of human deaths occur in Asia and Africa. WHO supports targets for elimination of human and dog rabies in all Latin American countries by 2015 and of human rabies transmitted by dogs in South-East Asia by 2020.^[1] Rabies persists mainly in wild animals in developed countries whereas in many developing countries it is an endemic disease, with the dog as the principal reservoir. In Western European Countries, rabies in dogs was eliminated several decades ago, but it continues to persist in fox populations.

There are various examples that show the potential for rapid spread of rabies when appropriate action is delayed or not executed. For instance with oral vaccination campaigns conducted in foxes, rabies affecting fox has been eliminated in France till October 2013, when a two -months old run-away kitten died due to Rabies.^[2] The last recorded case of rabies in the UK was in May 2012. The patient, who died, contracted the disease after being bitten by a dog in India. As a result of strict UK quarantine laws when transporting animals, and the recent Pet Travel Scheme (PETS), the UK has been rabies-free since the beginning of the 20th century, with the exception of a rabies-like virus in a single species of bat.

Given that rabies- endemic countries include many popular tourist destinations, rabies has become one of the most serious travel-related infectious diseases.^[3] There is little data available on the actual risk to travellers of being possibly exposed to rabies. Studies carried out amongst traveller's awareness and practices about rabies have shown pathetic results. Amongst French travellers visiting rabies endemic area though animal encounters were frequent Only 50.7% of travellers were aware of the preventive vaccination.^[4] Amongst Israeli travellers The incidence of potential rabies exposure was found to be of 2.66 per 1000 travellers per month. Only 31% of the injured sought medical attention.^[5] In Nepal the incidence of people presenting with possible rabies exposures was 1.9 per 1,000

persons/ year for tourists and 5.7 per 1,000 persons /year for resident expatriates. Among patients presenting with animal bites, 56% of foreign residents, and 21% of tourists had been pre-immunized against rabies.^[6] Travel to Southeast Asia, India, and North Africa, young age, and travelling for tourism are risk factors for potential exposure; the duration of travel is not a risk factor. More than 70% of travellers are not immunized prior to departing and do not receive adequate care when injured.^[7] Tour leaders in Taiwan had poor knowledge regarding clinical manifestations, rabies-endemic areas, prevention, and management.^[8]

According to experts, the decision to vaccinate results from an individual risk assessment based on the duration of stay, the likelihood of engagement in at-risk activities, the age of the traveller, the rabies endemicity and access to appropriate medical care in the country of destination. However, no detailed information is available regarding the last two determinants in many regions.^[9]

The decision whether or not to administer rabies pre-exposure prophylaxis (PEP) to travellers visiting endemic areas is a complex one. Countries are categorised depending on host species in which the rabies virus is maintained, availability of reliable laboratory-based surveillance data from these reservoir species and access to proper medical care and the availability of modern rabies vaccines.^[10]

Pre-travel advice when addressing rabies prevention should consider the specific epidemiology of animal-related injuries in the travelled country, as well as the traveller's characteristics. Few countries like Canada, strongly recommends that travellers should obtain an individual risk assessment from a physician. Travellers should be advised about which species of animal are potentially aggressive in their destination country so that they can more easily avoid risk-contacts. In addition to physicians, tour leaders can also play a key role in the prevention and management of travel-related infectious diseases during group tours. Pre exposure

vaccination is also recommended for people travelling to countries where post exposure prophylaxis is not available or is unsafe. So, for travellers visiting India, similar way of risk assessment can be adopted where they can be advised to complete Pre exposure vaccination (usually completed within 28 days) prior to their arrival at India.

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