Rabies

The Disease

Rabies is a severe viral infection transmitted to humans by the saliva of infected mammals. The term ‘rabies’ refers to the disease caused by any known lyssavirus species.

Following a bite, scratch or, less typically, a lick from an infected animal, the virus enters the body and attacks the nervous system. In developing countries, Rabies is mainly transmitted by dogs and monkeys however it may also be passed on by bats, skunks, cats and foxes. Rabbits, squirrels, chipmunks, rats and mice are rarely infected, but any mammal with teeth theoretically can spread rabies.

Animal behaviour is NOT a reliable sign of whether an animal is rabid; an infected animal can appear normal. The disease’s incubation period can be as little as one week and as long as several years, averaging 3 -8 weeks.

Rabies is almost always fatal. It affects the nervous system and the brain. Early symptoms include non-specific symptoms such as headache, cough, fever, nausea, tiredness, pain, itching or tingling at the site of the healed bite wound. Later, a range of symptoms affecting the nervous system develop, including muscle spasms and an inability to drink and swallow, followed by paralysis, convulsions and coma.

Where is it found?

Most countries throughout Asia, Africa and South America have extensive infected regions. Countries where rabies is a significant health risk include: Bangladesh, Bolivia, China, Colombia, Ecuador, El Salvador, Ethiopia, Guatemala, India, Mexico, Nepal, Peru, Philippines, Sri Lanka, Tanzania and Thailand.

Rabies is also present in developed countries, including parts of Europe and North America, however due to the high levels of immunisation the risk is lower.

Australia, New Zealand Japan, PNG and Pacific island nations are currently free of rabies in terrestrial mammals, however Australia’s bat population has been found to carry the closely related Australian Bat Lyssavirus. To date in Australia there have been 3 fatalities from bat bites due to this virus.

The country status can change rapidly. This was the case in Bali in 2008; previously considered rabies-free, an infected dog arrived on the island causing an outbreak which lead to rabies cases (deaths) in humans.

Risk to travellers

Travellers to rabies-endemic countries should be aware of the risk. The best strategy to prevent rabies is to avoid contact with any animal. However, pre-exposure vaccination is recommended for high-risk groups including animal handlers, veterinarians, naturalists, cave explorers, cyclists, and travellers to remote areas, particularly those spending more than 30 days travelling extensively in rural areas of high-risk countries. It is felt that the smaller stature of children puts them at higher risk of being bitten and there is a further risk that, having been warned not to make contact with animals, they may not report minor bites, scratches or licks.

All animal bites must be washed thoroughly with soap and water; alcohol or iodine must also be applied.
As rabies is invariably fatal, urgent medical attention should be sought as soon as possible after any potential exposure for post-exposure vaccination to be administered.

Vaccination

Type

- Inactivated viral vaccine (MIRV/Rabipur)

Standard schedule

- Three doses at 0, 7 and 28 days.
- If time does not permit standard schedule, an accelerated schedule of Days 0, 7 and 21 is possible.

Level of protection

A paper published by WHO recently showed that the rabies cell culture derived vaccines provided long-term immunity of at least 10 years for those who completed a full course of rabies pre-exposure series.

The WHO states that booster doses are not required for those travelling or living in high risk countries who have completed the primary course.

They are however recommended for immunised persons who have on-going occupational exposure to lyssaviruses in Australia or rabies virus.

These include:

- Persons who work with live lyssaviruses in research labs
- Others with exposure to bats in Australia or overseas and those likely to be exposed to rabid terrestrial mammals overseas should have Rabies antibodies measured every 2 years.

Potential side-effects

Usually infrequent and mild:

- Redness, swelling, and pain around the injection site.
- Fever, headache, nausea, abdominal pain, muscle aches, dizziness.

As with all vaccines, there is a small risk of allergic reaction.

More information on rabies and related health risks will be available during your Travelvax consultation. Call 1300 360 164 for the location of your nearest clinic.