

## Rabies Vaccine for Travellers (Pre-Exposure)

### What is Rabies?

Rabies is a rare fatal viral infection that affects the brain.

### What are the symptoms?

Symptoms begin with fever, malaise, headache, numbness or tingling, and muscle aches. After several days, severe inflammation of the brain occurs with delirium, painful muscle spasms, seizures, paralysis, coma and death. Spasm of swallowing muscles can be caused by the sight, sound or perception of water and for this reason the disease is sometimes called hydrophobia. Symptoms may occur 10 days to 1 year after exposure.

### How is it spread?

The virus is spread by infected animals when their saliva comes in contact with a person through biting, scratching or licking. While common animals that may carry rabies include dogs, cats, skunks, raccoons, bats and cattle, all mammals are susceptible.

### Who is at risk?

People traveling to countries where the disease is common are at greater risk. Rabies is found on all continents except Antarctica. In certain parts of the world rabies is so common among dogs that it is considered always present. These countries with highest risk include :<sup>1</sup>

- |               |                  |             |               |
|---------------|------------------|-------------|---------------|
| • Afghanistan | • Bangladesh     | • Brazil    | • Bolivia     |
| • China       | • Columbia       | • Ecuador   | • El Salvador |
| • Guatemala   | • Haiti          | • India     | • Indonesia   |
| • Mexico      | • Myanmar(Burma) | • Nepal     | • Pakistan    |
| • Peru        | • Philippines    | • Sri Lanka | • Thailand    |
| • Vietnam     | • Yemen          |             |               |

It is essential to receive the pre-exposure vaccine if your destination will be more than 24 hours away from treatment.

Travellers with extensive unprotected outdoor exposure in rural areas are at greater risk. Such trips might include biking, camping and hiking. Professions including lab workers, veterinarians, animal control workers, spelunkers, forest rangers, and researchers will be at higher risk.

### How can I protect myself?

- Do not approach or pet stray dogs, cats, monkeys or wild animals. Anyone who plans to stay more than 30 days in remote or rural areas of affected countries should consider the pre-departure vaccine.

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<sup>1</sup> List from Health Information for International Travel, 2005-2006, Elsevier Mosby

### Receive **Pre-Departure Vaccination** <sup>2</sup>

- > Three pre-exposure doses of vaccine may provide lifetime protection but post exposure booster doses are always required. In case of a bite from a potentially rabid animal, the advantages to having received pre-exposure vaccine are:
  - > You won't need to receive RIG (rabies immune globulin) which may not be available in developing countries.
  - > You will need only two, not five, doses of rabies vaccine after exposure

### **How often do I receive the Vaccine?**

Either **RabAvert** (produced by Merck Frosst) or **IMOVAX** (produced by Aventis Pasteur) is used for pre-exposure vaccination. The initial pre-exposure series consists of three doses on days 0, 7 and either 21 or 28 days. If you are repeatedly at risk of exposure, blood tests should be done every two years to make sure antibodies continue to be present.

### **How will the vaccine be given?**

Your immunization may be given intradermally (just under the skin) of the upper arm. This method uses much less vaccine but has been researched and proved to be just as effective. While intramuscular (IM) administration of rabies vaccine is the gold standard, the World Health Organization (WHO) considers the intradermal (ID) regimen an acceptable alternative as it uses less vaccine to produce a comparable degree of protection against rabies<sup>(3, 4, 5)</sup>. In a number of countries throughout the world, ID administration has become standard practice. Although not recommended by the manufacturer in Canada, ID vaccination with rabies cell culture vaccines is an economical and widely accepted alternative to IM vaccination and uses one-tenth of the IM dose.

### **Is there any reason I should not have the vaccine?**

Be sure to inform the nurse if you:

- Suffer from an acute illness or fever
- Have a known sensitivity to any vaccine components including neomycin
- Are currently taking corticosteroids or chloroquine
- Are pregnant

### **Is there any side effects?**

- Pain, redness or swelling at the injection site
- Mild headache, nausea, abdominal pain, muscle aches or dizziness

**NOTE: You should not take chloroquine for at least one month after receiving ID rabies vaccine.**

### **What happens if I am exposed to a rabies-infected animal?**

- A rapid medical response is always necessary
- Wash the wound immediately with lots of soap and clean water
- If you have had the pre-exposure series of vaccine, you will require 2 post-exposure injections
- If you have not completed the pre-exposure series of vaccine, you will require 5 post-exposure injections as well as rabies immune globulin