

## Traveller Information Sheets

### Meningococcal Meningitis for travellers to Africa



(Centre for disease control and prevention 2014)

#### *What is Meningococcal Meningitis?*

Meningococcal Meningitis is a bacterial disease that is transmitted person to person, via respiratory droplets of infected persons or carriers. For example a cough or a sneeze from an infected person is able to transmit the disease to other people within the vicinity. 10% of healthy persons are nasopharyngeal carriers of the disease – without even knowing it. It is an infection of the thin lining of tissue around the brain.

#### *Can you die from Meningococcal Meningitis?*

Meningococcal meningitis has a case fatality rate of 10-15%, even if antibiotics have been started promptly. Up to 19% of survivors will have long term disabilities such as loss of limb, deafness, nervous system problems or some brain damage.

The symptoms associated with meningococcal meningitis include; sudden onset of headache, fever, nausea and/or vomiting, neck stiffness and photophobia (sensitivity to light).

#### *How many kinds of meningococcal meningitis are there?*

Each of the countries where the disease is endemic has particular strains of the meningococcal disease. In Australia there are vaccines that are used to vaccinated against the following strains; A, B, C, W135, and Y. The vaccine for B Strain meningococcal vaccination is relatively new. It is known as Bexsero. It will not be discussed here.

#### *Is the risk of getting meningococcal meningitis higher at some times rather than others?*

Sub-Saharan Africa known as the meningitis belt, which stretches from Senegal in the west to Ethiopia in the east, has the largest burden of disease. At times there are epidemics of meningococcal meningitis, however this is usually due to a collection of risk factors all present at the one time. In temperate zones cases tend to occur in the winter months. Outbreaks can occur in crowded spaces. In Sub-Saharan Africa, outbreaks usually

occur in the dry season. Saudi Arabia demands proof of recent meningococcal vaccination as a visa requirement for pilgrims and guest workers.

Some countries recommend a vaccination against meningococcal meningitis depending upon the age of the traveller and the type of accommodation they have, usually travellers aged in their 20's staying in hostels and dormitory style accommodation. This is related to risk factors this group of travellers may be exposed to.

*Is there a vaccination against meningococcal meningitis?*

Yes.

There are the A, C, W135 and Y strain polysaccharide vaccinations;

Mencevax and Menomune

- Dosage is 0.5 mL, to be given by SC injection.
- Both above vaccines are registered for use in children  $\geq 2$  years of age, adolescents and adults.

Booster doses: Persons aged  $\geq 9$  months with a medical condition that places them at high risk of meningococcal disease, and who have previously received either mencevax or menomune, should receive a booster dose of either mencevax or menomune, 3 years after their last dose. Thereafter, administer a conjugated vaccine (Menveo or Menactra – listed below) every 5 years.

There are the A, C, W135 and Y strain conjugate vaccinations;

Menveo and Menactra

- Dosage is 0.5 mL to be given by IM injection.
- Both above vaccines may be given from 9 months of age.

Booster doses: For persons travelling to endemic or hyperendemic regions, a dose of Menveo or Menactra should be administered every 5 years if the risk of meningococcal exposure is ongoing.

### *Reference*

Centres for disease control and prevention, 2014, Atlanta GA, viewed 12<sup>th</sup> April 2014, <<http://www.cdc.gov/meningococcal/about/causes-transmission.html>>

World Health Organisation, 2012, Geneva Switzerland, viewed 12<sup>th</sup> April 2014, <<http://www.who.int/mediacentre/factsheets/fs141/en/>>

Centres for disease control and prevention, 2014, Atlanta GA, viewed 12<sup>th</sup> April 2014, <<http://www.cdc.gov/meningococcal/about/symptoms.html>>

Centres for disease control and prevention, 2013, Atlanta GA, viewed 12<sup>th</sup> April 2014, <<http://wwwnc.cdc.gov/travel/yellowbook/2014/chapter-3-infectious-diseases-related-to-travel/meningococcal-disease>>

Australian Technical Advisory Group on Immunisation 2013, *The Australian Immunisation Handbook. 10th ed.* Canberra: Australian Government Department of Health, viewed 12<sup>th</sup>

April 2014, <<http://www.immunise.health.gov.au/internet/immunise/publishing.nsf/Content/handbook10-4-10>>

World Health Organisation, 2014, Geneva Switzerland, viewed 12<sup>th</sup> april 2014, <<http://www.who.int/ith/vaccines/meningococcal/en/>>