

Meningococcal Meningitis

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What is Meningitis?

Meningitis is an infection which causes inflammation of the lining of the brain and the spinal cord.

There are five types of meningococcal meningitis that cause clinical illness worldwide. These are types A,B,C,W135 and Y.

Meningitis types A, B and C are the most common causes of illness worldwide, with types B and C predominant in Europe, and A and C predominant in Africa and Asia. In recent years another type called: W135 has emerged in Africa and the Middle East.

Where does it occur?

Meningococcal disease occurs sporadically in small clusters all over the world with seasonal variations.

The majority of meningococcal disease occurs in the 'African meningitis belt', which extends across the dry, savannah parts of sub-Saharan Africa from Senegal in the west, to Ethiopia in the east. During epidemics this region has a disease incidence rate of >1,000 cases per 10,000 population.

Carrier rates of meningitis can also be increased significantly during overcrowding at pilgrimages such as the Hajj or Umrah. In addition, subsequent outbreaks can occur among pilgrims on return to their home countries.

This has led to quadrivalent vaccine as an entry requirement for all pilgrims to the Hajj and Umrah from 2002.

Risk for Travellers:

The risk for meningococcal meningitis is extremely low in tourists; the risk is higher for those living or working with local people, especially for prolonged periods in endemic areas or where outbreaks are occurring and those on the Hajj or Umrah pilgrimages.

Transmission:

Meningitis is transmitted from human to human via the respiratory route from coughing and sneezing, and is acquired from a carrier during close contact.

Transmission is often associated with overcrowded and poor conditions. Most epidemics occur during the winter-spring period in temperate areas and during the dry season in tropical areas. In the meningitis belt of sub-Saharan Africa, the highest transmission period in West Africa is between November to May, with seasons being variable in east Africa.

Signs and Symptoms:

The disease usually has a sudden onset of fever, intense headache, nausea and vomiting. These symptoms can develop within minutes or hours. The patient is often irritable and prefers to lie still. Neck stiffness from meningeal irritation is also found.

A characteristic rash (which does not disappear when pressed with a glass) may occur from septicaemia (blood poisoning), and confusion and coma can ensue. With early diagnosis and treatment the case fatality rate varies between 5-15%.

Treatment:

The meningococcal infection is a medical emergency; investigation and treatment should be commenced immediately.

Prevention:

Travellers should be aware of the mode of transmission and to avoid overcrowded situations.

Vaccines are available to prevent four strains of meningitis A, C W135 and Y for those travelling to risk areas. A booster dose is usually recommended at 5 years, but should be discussed with your travel health advisor.

Saudi authorities require proof of vaccination every 3 years for those travelling as pilgrims.