



Meningococcal disease

What is meningococcal?

Meningococcal is a serious illness with serious complications, including brain damage and death. Early diagnosis and treatment is essential. There are three main types of the disease. While vaccination against the meningococcal C strain is now part of the childhood immunisation schedule, parents still need to be aware of the early signs of meningococcal infection as the vaccine does not protect against type B, which is more common (but less deadly) in Australia.

Free meningococcal C vaccine was introduced to the childhood immunisation schedule for all 12 months olds in September 2003. A school based program run from 2003-05 also offered the vaccine to children from kindergarten to Year 12.

Free meningococcal C vaccine will also be provided until June 2007 for all children and adolescents who were between one and 19 years in 2003.

Transmission

About 10% of the community carries the meningococcal bacterium in the back of the throat and nose without coming to harm, so it is thought not all of the germs are dangerous.

Humans are the only natural host and the organism cannot survive outside the body for any length of time. Smokers and those living in crowded conditions such as a dormitory increase their likelihood of being carriers. The incidence of disease varies with the seasons, usually appearing in winter and spring.

Meningococcal is transferred through droplet transmission, such as sneezing and saliva, so household contacts of a sufferer have a higher risk of contraction. As a consequence, contacts over the previous seven days are usually given a protective course of antibiotic. This treatment also reduces the chance that these contacts in turn will spread the germ further. However, the risk of catching the disease from a sufferer is still fairly low and most cases are unrelated to each other.

Symptoms

Meningococcal disease develops quite rapidly, with people becoming very sick within a matter of hours. Fever, rash and vomiting are common in young adults and children, but young adults may also exhibit headache, drowsiness or confusion-coma, neck stiffness or joint or muscle pain, and dislike of bright lights. Children may also be fretful, refuse feeds, and have difficulty waking, pale or blotchy skin, and a high pitched moaning cry.

While the rash is an important symptom of the disease, it is not always present in the early stages. It may look like blood under the skin, and may go pale with pressure, and look different to the more common viral rashes.

Recognising the symptoms early is vital as early antibiotic treatment is essential.

Complications

Meningococcal meningitis infects the soft covering of the brain and can cause brain damage. In meningococcal septicaemia the organism is carried by the blood to many parts of the body that may include major organs, skin, connective tissues and joints. Both can cause death.

Hearing loss is the most common complication of meningococcal disease (4-6%) with half these cases having severe hearing loss in both ears. Hearing loss is more common in children than adults.

Limb amputations, retardation and hydrocephalus (abnormal fluid on the brain) affect less than 1% of survivors.

Benefits of vaccination

The UK vaccination program introduced in November 1999 has resulted in a dramatic decrease in the number of people contracting strain C, so we know the vaccine is effective. Type C is less common in Australia; of 679 meningococcal infections nationwide in 2001, only 32% (217) overall were type C infections, but type C remains the most serious form of the disease. The annual incidence of meningococcal C

more than doubled between 1995-2000. Death rates in 1999 were 14.9% with type C infection and 6.4% with meningococcal B infection.

Local figures

Between Grafton and the Queensland border, there are an average of seven to eight cases of meningococcal infection a year. Between January and October 2002 there were five reported cases. This region had three deaths resulting from meningococcal disease in 2003.

Meningococcal B is the most common strain of the virus in NSW with 75% of meningococcal cases being strain B. Meningococcal C affects 5% of people in NSW. We do not know the strains of the other 20% of cases.

Vaccine side effects

The meningococcal C vaccine has similar side effects to those already in the childhood immunisation schedule.

Redness, swelling and tenderness or pain at the injection site are common side effects for all ages.

Toddlers and infants may also experience fever, crying, irritability, drowsiness, impaired sleeping, loss of appetite, diarrhoea and vomiting.

Vaccine effectiveness

- 92% in toddlers
- 97% in teenagers

More information

Please see your doctor or the visit the following websites:

Vax 'em!

www.vaccination.org.au

Meningitis Foundation:

www.meningitis-foundation.org

Fact Sheet:

www.health.gov.au/pubhlth/strateg/commnic/factsheets/mening.htm

