



# FREQUENTLY ASKED QUESTIONS MENINGOCOCCAL DISEASE



## 1. What is meningococcal disease?

Meningococcal disease, either septicaemia or meningitis, is an invasive disease caused by the bacterium *Neisseria meningitidis*. The disease mainly affects children under 5 years of age, with the highest attack rates in babies aged 3-12 months. Endemic meningococcal disease is found worldwide but some countries in the so-called African meningitis belt experience epidemic waves of the disease, which lead to excessive morbidity and mortality among children and young adults.

## 2. What are the symptoms of meningococcal disease?

The initial symptoms are non-specific and include:

- Fever
- Headache
- Vomiting
- Nausea

Characteristic symptoms of meningitis and septicaemia are the following:

### Infants

- High fever with cold hands and feet
- Nuchal rigidity (stiff neck)
- Maculopapular rash
- Irritability
- Difficulty during feeding
- Pale complexion
- Bulging fontanelle

### Children and adults

- High fever with cold hands and feet
- Nuchal rigidity (stiff neck)
- Photophobia (dislike of bright lights)
- Severe headache
- Joint and muscular pain
- Maculopapular rash

Complications of the infection may include:

- Deafness
- Mental retardation
- Brain damage
- Kidney failure
- Death

### **3. Why is meningococcal disease a health problem in South Africa and the world?**

*Neisseria meningitidis* is a leading cause of meningitis and fulminant septicaemia and a significant public health problem globally. The highest burden of this disease occurs in sub-Saharan Africa in an area that is referred to as the meningitis belt. This is the area between Senegal on the west coast and Ethiopia in the east, and includes all or part of at least 15 countries, with an estimated total population of approximately 300 million. Epidemics occur in seasonal cycles between the end of November and the end of June, depending on the location and climate of the country, and decline rapidly with the arrival of the rainy season. The last major epidemic occurred in 1996, involving several West African countries, and resulting in approximately 250 000 cases with 25 000 deaths.

In South Africa, meningococcal disease is endemic with a seasonal peak in winter and spring months. However, the incidence of disease has been decreasing over the years to <2 cases per 100 000 population from 1992-1997. In 2004 there were 352 cases of meningococcal disease and for 2005 there have been 346 reported cases by the 24 September.

### **4. Who is at risk?**

Anyone is at risk of meningococcal infection, but there are certain groups who, due to circumstances, are more at risk than others and they include:

- Children under 5 years
- Those aged 15-24 years
- Travellers to endemic countries
- Immunocompromised individuals
- Inmates of correctional facilities
- Children of a nursery or day-care centre
- Students living in residences
- Military personnel

### **5. How is meningococcal disease transmitted?**

The bacteria are transmitted from person to person through:

- Droplets of respiratory or throat secretions
- Close and prolonged contact (e.g. kissing, sneezing and coughing on someone, living in close quarters or dormitories (military recruits, students)
- Sharing eating or drinking utensils may also facilitate the spread of the disease.

## **6. How do I know if I have or have had meningococcal disease?**

The diagnosis of meningitis can be made from the clinical presentation; however laboratory confirmation of *N. meningitidis* must be made from blood or cerebrospinal fluid samples. It is important to visit your nearest health care centre should you present with symptoms of meningitis infection.

## **7. What is the treatment following meningococcal infection?**

Meningococcal disease is frequently fatal and any suspected case should be viewed as a medical emergency. There are effective antibiotics which should be administered promptly in order to reduce morbidity and mortality. Drugs that can be given are ampicillin, chloramphenicol, and ceftriaxone. Vancomycin can be used if the infecting organisms are ampicillin resistant.

## **8. How is meningococcal disease prevented?**

The best way to prevent meningococcal disease is by vaccination.

## **9. Who should get the meningococcal vaccine?**

Children under 5 years of age

- Travellers to meningococcal disease endemic countries
- Immunocompromised individuals
- Military personnel
- Laboratory workers who might handle meningococcal samples
- Any person who might be at risk during an outbreak

## **10. How and when is the meningococcal vaccine given?**

Children under 2 years of age should get three doses of the vaccine one month apart

- Children above 2 years and adults should get one dose
- The vaccine is administered subcutaneously or by intramuscularly to the arm.

## **11. Should HIV positive individuals be vaccinated?**

Meningococcal vaccine can be given to HIV positive individuals, however the response to the vaccine is poorer than in HIV negative individuals.

## **12. What are the side effects of the meningococcal vaccine?**

Reactions to meningococcal vaccine are mild. Side-effects include fever and soreness at the site of injection.

### **Where to find us:**

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