



## VACCINE: MENINGOCOCCAL DISEASE



### 1. Vaccine indication

Meningococcal vaccine is indicated for the active primary prevention of *Neisseria meningitidis* infection in persons at increased risk of infection.

### 2. Rationale for vaccination

*N. meningitidis* is the leading cause of bacterial meningitis and is capable of causing epidemics of meningitis which are more often fatal even with chemoprophylaxis. Vaccination with a safe and effective vaccine is the best way to prevent infection and associated sequelae such as meningitis, kidney failure and death.

### 3. Type of vaccine

Meningococcal polysaccharide vaccine.

### 4. Composition of the vaccine

Meningococcal vaccine consists of freeze-dried polysaccharide components for serogroups A, C, W135 and Y. The vaccines are stored at 2°C to 8°C for several years and are reconstituted with appropriate diluent just before use. The vaccines are available either as monovalent (groups A or C), bivalent (groups A and C) or tetravalent (groups A, C, W135 and Y).

### 5. Immunogenicity of vaccines

There is an age-related antibody response to meningococcal vaccines. Serogroup A vaccine induces antibody response in children as young as 3 months although a response comparable to adults is only achieved at 4 or 5 years of age. Serogroup C vaccine is not immunogenic in children less than 2 years of age. Vaccines made from serogroups W135 and Y induce an immune response in adults and children above 2 years of age.

### 6. Efficacy and long term protection

The efficacy of meningococcal vaccines is group and age-specific. However, in clinical trials it has been established that serogroups A and C vaccines confer protection of between 85% and 100% for children above 2 years of age and adults. The efficacy of serogroups W135 and Y has not been established.

## 7. Candidates for vaccination

Meningococcal vaccine is not available as part of the EPI (SA) schedule, however there are persons who are at an increased risk of *N. meningitidis* infection and should be vaccinated. They include the following:

- 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

## 8. Vaccination regimen and route of administration

- Meningococcal vaccine is given by intramuscular injection to the anterolateral aspect of the thigh for infants, or the deltoid muscle for older children and adults
- Children under 2 years of age should get three doses of the vaccine one month apart
- Children above two years and adults should get one dose

## 9. Side effects and special precautions

Reactions to meningococcal vaccine are mild. Side-effects include fever and soreness at the site of injection. Individuals sensitive to thimerosal (mercury) should receive preservative-free vaccine.

### Where to find us:

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