

## Group C Conjugate Vaccine (Meningitec®)

### Background

Most cases of invasive meningococcal disease in Australia are due to either serogroup B or serogroup C. Previously group B organisms caused most cases in young children, and group C caused most cases in adolescents and adults, but this is changing. Over the past few years, the incidence of invasive meningococcal disease has increased in Victoria, especially in teenagers and young adults. The increase is especially due to group C organisms although group B is also on the rise. The two highest risk age groups are:

- Under 5 years old. Incidence 12 to 15 per 100,000. Currently about 35% group C.
- 15 to 24 years old. Incidence 6 to 8 per 100,000. Currently about 75% group C.

Therefore, despite the increasing incidence, invasive meningococcal disease is still rare. Nevertheless, the disease is very serious, has a high case-fatality rate, and causes substantial alarm in the community.

### Vaccines

A polysaccharide vaccine has been available for many years that offer protection against groups A C Y and W135. This vaccine produces poor immune responses in young children, and does not produce long-lasting protection. There is no vaccine against group B disease (the most common cause in young children).

A new protein-conjugated group C meningococcal vaccine has just been licensed in Australia. The present vaccine is called Meningitec® (Wyeth-Lederie), although other formulations from different companies may also be licensed in coming years.

Meningococcal C conjugate vaccine is highly effective at preventing group C disease at all ages, including young infants, and will likely produce a long-lasting immune response (possibly life long). Since 1999, the United Kingdom has been immunizing all children and adolescents with this vaccine - it has proven highly effective and very safe. In the tens of thousands of children who have received the vaccine, the rates of local reactions and fever are similar to other childhood vaccines, and there have been no serious adverse events linked to the vaccine.

Meningitec is expensive. It is usually between \$65 and \$80 per dose (RCH local price \$69-95), but some private insurance plans are likely to provide partial reimbursement of the costs. Currently there is no program of government funded vaccine apart from its use in outbreak control.

## te Vaccine in Australia

The Australian Technical Advisory Group on Immunization (ATAGI) is presently formulating guidelines for the use of this vaccine in Australia. These may include routine immunization (funded by government) in some age groups or in some high-incidence regions. Until the guidelines are released, the following represent our recommendations for the use of the vaccine.

**Who should receive the vaccine? As the vaccine is highly effective and safe, we recommend this vaccine for all children aged >6 weeks and adolescents, noting that families will have to pay for it at present.**

Parents of children aged <5 years should be informed that this vaccine will not protect against the most common form of meningococcal disease in that age group, but will protect against approximately one-third of cases. They should also know that immunization of their child now will likely protect them later in life, when the risk of group C disease may be higher.

### **Age at initial injection:**

- **Age 6 weeks to 6 months:** 3 doses, at least one month between each dose (eg at ages 2, 4 and 6 months, but can be given as early as 6, 10 and 14 weeks).
- **Age 6 months to 12 months:** 2 doses separated by at least one month. Note: The Company recommends 3 doses in this age group. However 2 doses appear sufficient and possibly just 1 dose. Until ATAGI recommendations are finalized we recommend 2 doses at this age, but this may change in the coming months.
- **Age over 12 months** (including adolescents and adults): 1 dose.

The vaccine can be given at the same time as other childhood vaccines including conjugate Pneumococcal vaccine and varicella vaccine.

**Further advice and immunization for any child attending  
The Royal Children's Hospital Melbourne**

## **Immunization Centre**

**Royal Children's Hospital**

**03 93456399**