Fact Sheet:  
**Meningococcal Group A, C, Y and W-135 Conjugate Vaccine**

1. **What is meningococcal disease and what are the complications of this disease?**

**Invasive meningococcal disease** is caused by a bacteria called Neisseria meningitidis (*N. meningitidis*). There are many different groups or types of this bacteria which can cause disease and each type is identified by a letter. The bacteria can cause infection of joints (septic arthritis), blood (bacteremia or septicemia), the lining of the heart (pericarditis), the lung (pneumonia) or the brain (meningitis).

The most common illness caused by this bacteria is meningitis and there have been outbreaks of meningococcal meningitis in several Canadian provinces since 1989. Meningocococcus Group C was responsible for an outbreak of bacterial meningitis in PEI during 1990 to 1992. There were deaths among young adults during that outbreak.

Approximately 10% of people who get a meningococcal disease will die and 10-20% of survivors have long term effects including hearing loss, digit or limb amputations and neurological disabilities.

2. **What are the contents of the vaccine?**

This is an inactivated vaccine containing portions of the *N. meningitidis* antigens of serogroups A, C, Y and W-135 bacteria conjugated to a carrier protein from diphtheria. This component of the vaccine is responsible for stimulating the body to make antibodies to meningococcal A, C, Y and W-135 strains of the bacteria which results in protection for the vaccinated person.

As well, the vaccine contains traces of medicinal ingredients that keep the vaccine stable, sterile, and help the body be more effective in producing antibodies. There is no preservative and no mercury in the vaccine. The product is latex free. This vaccine protects against meningococcal disease types A, C, Y and W-135. This vaccine does not protect against invasive meningococcal disease caused by *N. meningitidis* type B.

All vaccine contents are licensed for use in Canada by the Biologics and Genetics Therapies Directorate within Health Canada. A complete listing of contents is included in the product insert which is available from the public health nurse.
3. What are the possible reactions to the vaccine?

The most serious but rare side effect is a severe allergic reaction (anaphylaxis) which can be life threatening and which usually occurs within 15-20 minutes of receiving the vaccine. Procedures are in place for the nurse to quickly respond to anaphylaxis by administering adrenaline.

The most common side effects after receiving the vaccine are tenderness, redness and swelling at the site where the vaccine is given. Headache and mild flu-like symptoms including malaise, tiredness, nausea, muscle aches and pains have been reported. These symptoms generally last 1-2 days.

It is not necessary to give acetaminophen after immunization. If discomfort or fever occur acetaminophen can relieve the symptoms.

- Please remain in the waiting room for 15 minutes after immunization.
- See a doctor or seek medical attention if any serious side effect occurs.
- Report serious reaction(s) to the public health nurse.

4. What are the situations in which Meningococcal A, C, Y and W-135 conjugate should not be given?

- The vaccine should not be given to anyone who has had an anaphylactic reaction to any component of the vaccine or who has a known history of Guillain-Barre Syndrome.

- The vaccine should be delayed until later if a person has an acute illness with fever. It can be administered when a person has a cold, or a chest or ear infection (if there is no fever).

5. What are the risks if the vaccine is not received?

The chance of getting meningococcal disease varies greatly from time to time and an outbreak can occur without warning. There had been an average of over 100 cases of meningococcal disease caused by groups A, C, Y and W-135 meningococcus in Canada each year, with an increased number of cases when an outbreak occurred.

Illness due to Meningococcus group C has decreased due to immunization programs, though cases due to group Y have become more common in Canada. This vaccine has been reported to provide antibody protection against meningococcal A, C, Y and W-135 disease at a rate of over 98% of adolescents who have received it.

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