MENINGOCOCCAL VACCINE

The Issue

A new meningococcal vaccine has been licensed for use in Canada. It is recommended for children under five years of age, adolescents, and young adults. If you or your family members fall into these categories, you may want to talk to your doctor or health care provider about the benefits of this new vaccine.

Background

Meningococcal Disease

Meningococcal disease is caused by a bacterium known as meningococcus. Some people carry this germ in their throat or nose without getting sick. In rare instances, the germ overcomes the body's natural defenses, and causes serious diseases, including bacterial meningitis (an inflammation of the tissue surrounding the brain and spinal cord), and meningococcemia (a widespread infection of the blood and other organs).

The Symptoms and Complications of Meningococcal Disease

The symptoms of meningitis include high fever, headache, stiff neck, vomiting and drowsiness. Other symptoms of meningococcal disease might include sensitivity to bright light (photophobia), confusion, and a purplish skin rash. Anyone with these symptoms should seek immediate medical attention.

Meningococcal disease is serious, and sometimes fatal. Approximately 10 percent of people who develop the disease will die. In addition, about 10 percent of those who recover will have long-term complications. These can include deafness, brain damage, problems with the nervous system and seizures, and may result in amputation of one or more limbs.

How Meningococcal Disease Spreads

Meningococcal infection is not very contagious. The bacteria spread from one person to another through close contact involving secretions from the nose or throat. Examples include kissing, and sharing eating utensils or water bottles. Most people exposed to the bacteria do not become infected, and most of the people who are infected, do not develop the disease. Still, anyone can get meningococcal disease. Children under the age of five, and particularly those under the age of one, are at highest risk, followed by teenagers between 15 and 19 years of age.

The number of cases in Canada goes up and down in irregular cycles. In any given year, cases reported to Health Canada range from 160 to 350. The last peak was seen in 2001.

The New Conjugate Meningococcal Vaccine

Canada

The new conjugate vaccine protects against a specific type of meningococcal bacteria known as Serogroup C. This type accounts for approximately 30 percent of meningococcal disease in non-outbreak years, and 45 to 50 percent in outbreak years.

The vaccine is given by a needle, and is safe and effective. The vaccine protects up to 97 percent of the time, depending on the person. The side effects are usually minor and temporary, including some redness and tenderness where the needle went in, or a mild fever. Serious side effects, including allergic reactions, are very uncommon. The vaccine cannot cause meningococcal disease because it contains no live bacteria. It can be given to children as young as two months of age. There is no other vaccine to prevent meningococcal disease in children this young.

The National Advisory Committee on Immunization (NACI) is a group of experts that provides Health Canada with ongoing and timely medical, scientific, and public health advice relating to immunization. In the 2002 Canadian Immunization Guide, NACI recommends the new meningococcal vaccine for all children under five years of age, adolescents, and young adults. Exceptions to this recommendation would include anyone who has previously had an allergic reaction to other components of the vaccine.

Health Canada's Role

Health Canada regulates vaccines in Canada through a rigorous licensing process. This includes an extensive pre-market review of information about a vaccine's safety and effectiveness, and post-market assessment, such as tracking adverse reactions.

In addition, Health Canada monitors the incidence of vaccine-preventable diseases, including meningococcal disease, develops guidelines for the control of diseases, and works with the provinces and territories on strategies to manage infectious diseases. Health Canada's National Microbiology Laboratory in Winnipeg tests samples submitted by provinces and territories to determine which strains of meningococcal bacteria are causing disease. This information helps public health authorities at all levels decide on the best approaches to control the disease.

Minimizing Your Risks

Most cases of meningococcal disease are unexpected and hard to prevent, but there are steps you can take to minimize your risks.

Talk to your doctor or health care provider if you think this vaccine is right for you or members of your family. You may have to pay for conjugate meningococcal vaccine as it is not part of the routine immunization program in all provinces and territories in Canada. You should also call or see your health care provider if you or a family member has been in close contact with someone who has meningococcal disease.

In this situation, antibiotics and/or vaccine may be recommended as a preventive measure. In addition, you can advise your children not to share water bottles and eating utensils with their friends. Regular, frequent hand-washing is also a good practice.

Need More Info?

For more information about vaccines and the NACI recommendations, visit Health Canada's Division of Immunization:

http://www.hc-sc.gc.ca/hpb/lcdc/bid/di/index.html

Other web sites of interest include the following:

Canadian Immunization Awareness Program
http://www.immunize.cpha.ca/

The Canadian Paediatric Society
www.caringforkids.cps.ca