Necrotizing fasciitis ("Flesh-eating Disease")

COMMUNICABLE DISEASE CONTROL

What is necrotizing fasciitis/myositis?

Necrotizing fasciitis (nek-roe-tie-zing fah-shee-eye-tis) is more commonly known as "flesh-eating disease." It is a rare illness that causes a great deal of tissue damage and can lead to death. In Canada, there are 90 to 200 cases of necrotizing fasciitis each year. It is fatal in about 20 to 30% of cases.

When the disease spreads along the layers of fatty tissue that surround muscle, it is called necrotizing fasciitis. When the disease spreads into the muscle tissue, it is called necrotizing myositis (my-oh-sie-tis).

The disease was first discovered in 1783, in France and it occurred from time to time throughout the 19th and 20th centuries. The disease was usually found in military hospitals, during times of war. There have been some outbreaks among the general public. The disease appeared to occur less often during the 1940s, and showed up again throughout the world in the 1980s.

What are the signs and symptoms of necrotizing fasciitis?

Symptoms of necrotizing fasciitis include fever, severe pain, and a red painful swelling of the infected area which spreads quickly (up to 3 cm an hour). Death can occur in 12 to 24 hours. Persons with "flesh-eating disease" usually have a lot of pain in the infected area—they know something is wrong.

What causes "flesh-eating disease"?

Necrotizing fasciitis can be caused by a number of different germs, one of which is the group A streptococcal (strep) bacteria. This is a common bacteria that causes infections, such as sore or strep throat, in children and young adults. Ten to 15 per cent of school-age children may carry group A strep

in their throat and have no symptoms. It is normally spread through close contact with an infected person, for example through kissing or sharing cutlery. This same bacteria also causes scarlet fever, impetigo and rheumatic fever. Sometimes group A strep can cause serious diseases such as pneumonia, toxic-shock syndrome, and necrotizing fasciitis and myositis. In cases where serious disease develops, the presence of sore throat is not very common.

How safe is the general public?

The general public remains very safe from this disease. Although reports in the news have increased our awareness of this condition, the number of persons with the disease has not changed over the last several years. Necrotizing fasciitis caused by group A strep occurs in about three to seven persons per 1,000,000 people per year.

What is the treatment for necrotizing fasciitis?

Antibiotics are an important part of the treatment of necrotizing fasciitis. However, since necrotizing fasciitis results in a loss of blood supply to, and death of the tissue and muscle in the affected area of the body, and since the blood takes antibiotics to the infected site, the effectiveness of antibiotics is limited. Therefore, the infected and dead tissue must be removed by surgery or it will affect the person's ability to recover.

What can be done to prevent infection?

Minor cuts should be washed with soap and running water, kept clean and watched for signs that may suggest spreading infection. Most cuts will have some redness around them. However, if this redness begins to spread rapidly, the cut should be seen by a nurse or doctor.

Is there a vaccine to prevent infection?

There is no vaccine currently available to prevent necrotizing fasciitis.

What research is being done?

It is not known why certain strains of group A streptococcus bacteria sometimes cause a serious illness in some people but not in others. Some strains of group A strep may produce chemicals that create serious reactions in the body, and can cause necrotizing fasciitis. Canadian researchers are working on new strategies to help in the treatment of flesh-eating disease.

What is being done to protect the public from this disease?

In Manitoba, necrotizing fasciitis is a disease that must be reported under the *Public Health Act*. The public health unit of the local regional health authority investigates the disease, then works to contain it and protect the public.

Health Canada is working with researchers to develop new plans and treatments to combat disease outbreaks when they occur.

For more information, please call your local public health unit.

Stamp for local public health office