INVASIVE STREPTOCOCCAL DISEASE

What is invasive streptococcal disease?

This disease is a bacterial infection that is caused by bacteria other than Group A and Group B *Streptococcus*. These bacteria are usually found on the skin, throat, gastrointestinal tract and vagina.

How is invasive streptococcal disease spread?

Some *Streptococcus* bacteria are naturally found in animals and humans. Group C and G streptococcal infections are largely spread through secretions of the nose and throat of infected people, or person-to-person spread through direct contamination of wounds. Other types of *Streptococcus* bacteria can be spread from animals to humans and from humans to animals.

What are the signs and symptoms of invasive streptococcal disease?

Symptoms will vary depending on the type of infection and may include:

- Pharyngitis (strep throat); common symptoms include pain on swallowing, tonsillitis, a high fever, headache, nausea, vomiting, tiredness, runny nose
- Skin abscesses; common symptoms include fever, severe pain and swelling, and reddening of a wound site
- Gastrointestinal illness; common symptoms include diarrhea, abdominal cramps, nausea, vomiting, fever, chills and dizziness

- Meningitis; common symptoms include a severe headache, fever, vertigo, nausea, vomiting, a stiff neck or mental changes such as confusion.

How long after infection do symptoms appear?

The incubation period (time from infection to when symptoms begin) varies with the form of the disease, ranging from less than 24 hours to approximately 2 to 3 days.

Who is most at risk?

Invasive streptococcal disease can affect infants, children, adolescents and adults. Many people with Group C infection have underlying health problems such as cancer and heart disease.

What type of health problems are caused by invasive streptococcal disease?

Streptococcal infections can cause a variety of diseases and may include:

- Abdominal infections
- Bacteremia (bacterial blood infection)
- Colon Cancer
- Endocarditis (inflammation of the heart lining)
- Meningitis (inflammation of the membranes that surround the brain and spinal cord)
- Neonatal sepsis (blood infection in an infant)
- Osteomyelitis (infection of the bones)
- Pneumonia in people with health problems

How is invasive streptococcal disease diagnosed?

Disease is usually identified by throat swabs, cultures and sometimes by a blood test.

How is invasive streptococcal disease treated?

Streptococcal infections can be treated with various antibiotics including penicillin, amoxicillin, ampicillin, cephalosporins, vancomycin and clindamycin. Other supportive care may be required such as intravenous immunoglobulin (IVIG) and dialysis.

How can invasive streptococcal disease be prevented?

- Observe good general hygiene practices such as hand washing.
- Wear protective clothing and gloves when handling pig carcasses and caring for horses with respiratory diseases.
- Avoid contact of open wounds with animals or animal products, in general, and wounds should be kept clean.

Where can I get more information?

- Your personal healthcare provider
- Utah Department of Health, Bureau of Epidemiology, 801-538-6191
- Centers for Disease Control & Prevention