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Invasive Group A *Streptococcus* (Necrotizing Fasciitis, Toxic Shock Syndrome)

What is group A strep (GAS)?

Group A *Streptococcus* is a bacterium often found in humans. Most people carry GAS in the throat or on the skin and have no symptoms of illness. Most GAS infections are relatively mild illnesses such as "strep throat," or impetigo. On rare occasions, these bacteria can cause other severe and even life-threatening diseases.

How are group A streptococci spread?

These bacteria are spread through direct contact with droplets from the nose or throat of persons who are infected or through contact with infected sores on the skin. It is not likely that household items like plates, cups, or toys spread these bacteria.

Invasive GAS disease occurs when the bacteria invade blood, or deeper tissues that are normally bacteria free. The most severe forms of invasive GAS are necrotizing Fasciitis (NF), also called "flesh-eating bacteria," and Streptococcal Toxic Shock Syndrome (STSS).

What are the symptoms of GAS infection?

Symptoms of invasive GAS disease include fever, chills, nausea, vomiting, and sometimes muscle pains and rash. Any wound that becomes very painful, swollen, or red requires immediate medical attention.

Early signs and symptoms of NF are fever, severe pain and swelling, and occasionally redness at the wound site.

The symptoms of TSS are fever, vomiting, diarrhea, muscle aches and rash. As the name

suggests, TSS can cause shock, which can be life threatening.

Who is most at risk of getting invasive GAS infections?

Few people who come in contact with GAS will develop invasive infections. While healthy people can become infected, people with chronic illnesses like cancer, diabetes, and kidney dialysis, and those who use medications such as steroids have a higher risk.

How are GAS infections treated?

A doctor can prescribe medications to treat GAS infections. In severe NF cases, surgery may be needed to remove damaged tissue. For STSS, the symptoms of shock must be treated, which may require hospitalization.

What can be done to help prevent invasive GAS infections?

All types of GAS infection can be reduced by good hand washing, especially after coughing and sneezing and before preparing foods or eating. All wounds should be kept clean and watched for possible signs of infection such as redness, swelling, drainage, and pain at the wound site. A person with signs of an infected wound, especially if fever occurs, should seek medical care. It is not necessary for all persons exposed to someone with NF or STSS to receive antibiotic therapy to prevent infection.

For more information, see the CDC's website at <https://www.cdc.gov/Features/NecrotizingFasciitis/>