

Group A Streptococcus

Who's at Risk and How to Protect Yourself

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- What is Group A Strep?
- How is it spread?
- What kind of illnesses are caused by GAS?
- What is invasive Group a Strep?
- Who is at risk of acquiring invasive GAS?
- What are the signs and symptoms of Invasive GAS?
- Outbreak Investigation
- What can be done to prevent GAS infections?

What is Group A Streptococcus?

- A bacterium in the Streptococcus family whose makeup of the cell wall classifies it as “A”
- Found in the throat and on the skin
- Approx. 15% of population are carriers
- Causes mild to severe infections

How is it Spread?

- Direct person to person contact
- Discharge from the nose or throat
- Infected wounds or sores on the skin

Non-Invasive Group A Streptococcus

- Very common, **not reportable** to public health
- “strep” throat, tonsillitis, otitis media, sinusitis
- Impetigo, cellulitis
- Scarlet fever



- Infection of the deep subcutaneous tissue of the skin
- often occurs where the skin has previously been broken: cracks in the skin, cuts, blisters, burns, bites, surgical wounds, or sites of injections
- redness, swelling, warmth, and pain or tenderness.
- fever or chills and headaches.
- In advanced cases of cellulites, red streaks

Severe/ Invasive Group A Streptococcus

- **Not that common**, reportable by law to public health
- Necrotizing fasciitis—skin, fascia and muscle
- Streptococcus toxic shock syndrome—multiple systems involvement
- Pneumonia
- Septicemia

Necrotizing Fasciitis

- AKA: “Flesh-eating disease”
- Rare infection of the fatty tissue that surround the muscle
- Intense pain, swelling, fever
- Fast onset
- Skin color change to dark purple, may blister
- Urgent medical attention needed
- Death can occur in 12-24 hours

Necrotizing Fasciitis

Skin

Fat

Fascia and muscular tissue

Changing skin color represents spread that is not visible on the surface

Medial
(inside) view

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Necrotizing Fasciitis



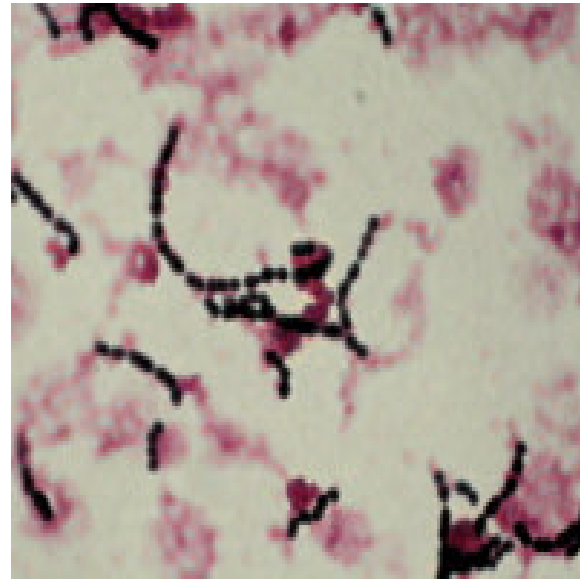
- Necrotizing ulcer after injection of a morphine tablet

Necrotizing Fasciitis

Streptococcal toxic shock syndrome

- Life threatening
- injury major organs, causing them to shut down quickly
- Symptoms are vague... flu-like, muscle aches, diarrhea, vomiting, aches pain usually in a limb, confusion, coma
- Fever, low BP, possible rash

- Group A streptococcal in the blood



Streptococcal Toxic Shock Syndrome

Who's at Risk

- Anyone can become infected

However, some are at greater risk

- Those with chronic illnesses such as diabetes, heart disease, chronic alcohol use
- Those who use steroids
- Those who inject drugs

iGAS in Thunder Bay

Started August 2007 and was declared over July 2009

- Had 96 cases
- Normally would see 3-4 cases in 100,000 people per year
- Currently, an increase is noted, 34 cases from Aug 2009- November 2010

In Thunder Bay,

Most prevalent risk factors associated with the outbreak were:

- Aboriginal race
- Hepatitis C infection,
- Alcoholism
- IVDU
- chronic medical conditions
- homelessness

Risk Factors

- The overall risk to general population is very low
- Cool fall weather will drive people indoors where GAS infections are more easily spread
- Close contacts of IGAS cases are at highest risk
 - household members, sexual partners, sharing saliva, living in the shelter system
- The majority of cases have occurred among people engaging in higher-risk activities
 - e.g., IVDU, those living in crowded or unhygienic conditions, those with chronic illnesses, chronic alcohol use Hepatitis C infection

Protect Yourself and Family

- Sore throat with fever seek medical attention
- Take care of wounds, keep them covered to avoid infection
- Infected cut, sore or wound with fever seek medical attention
- Complete all antibiotics as ordered

Hand Hygiene

- Bacteria present on hands removed during mechanical action of washing hands
- Intact skin is the first line of defense, those with a skin condition, cuts or abrasions at greater risk.
- if washing frequently, use skin lotion to help keep skin intact

Cough Etiquette

- Cough or sneeze into your sleeve, or a disposable tissue
- Dispose used tissue in the nearest waste receptacle
- Avoid touching your eyes, nose or mouth
- Clean your hands after coughing and sneezing

People who inject have an increased risk to get bacterial infections because of the constant break in the skin (which is our first line of defense from infections)

Avoid Infections when injecting

3 Main ways to pick up an infection from injecting

- 1) Skin
- 2) Air
- 3) Blood

How to lessen the chance of getting an infection

- Hand washing before hitting is essential
- Cleanse injection site well

Avoid,

- Sharing any equipment
- Licking end of needle before a hit
- Re-using a filter
- Sipping water from the spoon
- Touching needle with fingers

Avoid infections while injecting

Avoid,

- pre-mixing a hit as bacteria can grow easily
- injecting in any area that is already infected or irritated
- Coughing over equipment

Thank- you



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