



STREPTOCOCCAL TOXIC SHOCK SYNDROME (STSS)

1. **Agent:** *Streptococcus pyogenes* (group A beta-hemolytic streptococci [GAS]). Believed to be toxin-mediated; more commonly associated with infection due to GAS of M-protein types 1 and 3.

2. **Identification:**

a. **Symptoms:** STSS is a severe illness characterized by signs of toxicity and a rapidly progressive clinical course; case fatality rate can be as high as 30%. Clinical manifestations include hypotension (systolic BP \leq 90 mm Hg in adults) and evidence of multiorgan system dysfunction (renal impairment, coagulopathy, liver involvement, adult respiratory distress syndrome) usually occurring within 48 hours of onset of illness. STSS may occur with either systemic or with focal GAS infections, often in conjunction with rash and local tissue destruction (necrotizing fasciitis).

b. **Diagnosis:** The CDC case definition includes the following:

Isolation of GAS from either a normally sterile site or a non-sterile site.

Clinical signs of severity:

Hypotension: systolic \leq 90 mm Hg in adults, and

Two or more of following signs:

- Renal impairment; creatinine \geq 2 mg/dL
- Coagulopathy: platelets $<$ 100,000/mm³ or disseminated intravascular coagulation defined by elevated PT/PTT and either low fibrinogen level or the presence of fibrin split products
- Liver involvement: SGOT, SGPT, or serum bilirubin twice normal levels
- Adult respiratory distress syndrome
- Generalized erythematous macular rash
- Soft tissue necrosis including necrotizing fasciitis or gangrene.

REPORTING PROCEDURES

1. **Reportable:** *California Code of Regulations*, Section 2500, **Invasive Group A Streptococcal (GAS) or Pneumococcal Disease Report Form**
2. Telephone report of case to Acute Communicable Disease Control at (213) 240-7941.

CONTROL OF CASE, CONTACTS & CARRIERS

CARRIERS:

Same as for other group A streptococcal infections.

PREVENTION-EDUCATION:

Same as for other group A streptococcal infections.