

WISCONSIN TOXIC SHOCK SYNDROME CASE CRITERIA WORKSHEET

Patient Name: _____ Date of Birth: ____/____/____

Person completing form: _____ Phone: (____) ____ - ____

Is this **staphylococcal** or **streptococcal** toxic shock syndrome?

_____ Staphylococcal _____ Streptococcal (go to page 2)

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STAPHYLOCOCCAL TSS CLINICAL CASE DEFINITION: Case definition is listed here to help with case reporting. Only confirmed and probable cases will be included in state and national surveillance. To determine whether this case meets the case definition for confirmed or probable case, please check manifestations present below. The final case definition will be applied by an epidemiologist at the state level.

Confirmed case = a case that meets the laboratory criteria and presents with all 5 of the clinical findings listed below, including desquamation. If an individual dies prior to developing desquamation, but exhibits all of the other 4 clinical findings, that individual is considered a confirmed case-patient.

Probable case = a case that meets the laboratory criteria and presents with 4 of the 5 clinical findings listed below.

Laboratory criteria:

_____ **Negative** results on the following tests, if obtained:

- Blood or cerebrospinal fluid cultures (blood culture may be positive for *Staphylococcus aureus*)
- Negative serologies for Rocky Mountain spotted fever, leptospirosis or measles

Clinical manifestations:

1. _____ Fever: temperature $\geq 38.9^{\circ}\text{C}$ ($\geq 102.0^{\circ}\text{F}$). List temperature: _____
2. _____ Rash: diffuse macular erythroderma
3. _____ Desquamation: 1 to 2 weeks after onset of rash
4. _____ Hypotension: systolic pressure ≤ 90 mm Hg for adults or lower than fifth percentile by age for children younger than 16 years
5. Multi-system involvement, characterized by 3 or more of the following organ systems:
 - _____ Gastrointestinal: vomiting or diarrhea at onset of illness
 - _____ Muscular: severe myalgia or creatine phosphokinase (CPK) level at least twice the upper limit of normal
 - _____ Mucous membrane: vaginal, oropharyngeal or conjunctival hyperemia

- _____ Renal: blood urea nitrogen or creatinine at least twice the upper limit of normal for laboratory or urinary sediment with pyuria (≥ 5 leukocytes per high-power field) in the absence of urinary tract infection
- _____ Hepatic: total bilirubin, alanine aminotransferase (ALT) or aspartate aminotransferase (AST) enzyme levels at least twice the upper limit of normal for laboratory
- _____ Hematologic: platelet count $< 100,000/\text{mm}^3$
- _____ Central nervous system: disorientation or alterations in consciousness without focal neurologic signs when fever and hypotension are absent

STREPTOCOCCAL TSS CLINICAL CASE DEFINITION: Case definition is listed here to help with case reporting. Only confirmed and probable cases will be included in state and national surveillance. To determine whether this case meets the case definition for confirmed or probable case, please check manifestations present below. The final case definition will be applied by an epidemiologist at the state level.

Confirmed case = a case that meets laboratory criteria with isolation of group A *Streptococcus* from a normally sterile site and presents with the clinical findings listed below.

Probable case = a case that meets laboratory criteria with isolation of group A *Streptococcus* from a non-sterile site and presents with the clinical findings listed below.

Laboratory criteria:

- _____ Isolation of group A β -hemolytic *Streptococcus* (*Streptococcus pyogenes*)

List specimen source: _____

- Normally sterile sites include blood, cerebrospinal fluid or, less commonly, peritoneal, pleural, pericardial and joint fluids
- Non-sterile sites include throat, sputum, vagina, surgical wounds and superficial skin lesions

Clinical manifestations:

1. _____ Hypotension: systolic pressure ≤ 90 mm Hg for adults or lower than fifth percentile by age for children younger than 16 years
2. Multi-organ involvement, characterized by 2 or more of the following:
 - _____ Renal impairment: creatinine ≥ 2 mg/dL (≥ 177 $\mu\text{mol/L}$) for adults, or 2 or more times higher than the upper limit of normal for age (in patients with preexisting renal disease, a > 2 -fold elevation over baseline)
 - _____ Coagulopathy: platelets $\leq 100,000/\text{mm}^3$ or disseminated intravascular coagulation, defined by prolonged clotting times, low fibrinogen level, and the presence of fibrin degradation products

- _____ Hepatic involvement: alanine transaminase (ALT), aspartate transaminase (AST) or total bilirubin levels 2 or more times higher than the upper limit of normal for age (in patients with preexisting liver disease, a > 2-fold increase over baseline)
- _____ Acute respiratory distress syndrome: defined by acute onset of diffuse pulmonary infiltrates and hypoxemia in the absence of cardiac failure or by evidence of diffuse capillary leak, manifested by acute onset of generalized edema, or pleural or peritoneal effusions with hypoalbuminemia
- _____ A generalized erythematous macular rash that may desquamate
- _____ Soft tissue necrosis, including necrotizing fasciitis or myositis, or gangrene

References:

1. Council of State and Territorial Epidemiologists. Nationally Notifiable Infectious Conditions: Toxic-Shock Syndrome 2011 Case Definition. Available at: http://www.cdc.gov/osels/ph_surveillance/nndss/casedef/toxicsscurent.htm
2. Council of State and Territorial Epidemiologists. Nationally Notifiable Infectious Conditions: Streptococcal Toxic-Shock Syndrome 2010 Case Definition. Available at: http://www.cdc.gov/osels/ph_surveillance/nndss/casedef/streptococcalcurrent.htm
3. Heymann DL, ed. Toxic Shock Syndrome. In: *Control of Communicable Diseases Manual*. 19th ed. Washington, DC: American Public Health Association, 2008:576-577
4. Pickering LK, ed. Staphylococcal infections and group A streptococcal infections. In: *Red Book: 2009 Report of the Committee on Infectious Diseases*. 28th ed. Elk Grove Village, IL: American Academy of Pediatrics, 2009:601-628
5. The working group on severe streptococcal infections. Defining the group A streptococcal toxic shock syndrome: rationale and consensus definition. *JAMA*, 1993;269:390-391
6. Wharton M, Chorba TL, Vogt RL, Morse DL, Buehler JW. Case definitions for public health surveillance. *MMWR Recommended Reports*, 1990;39(RR-13):1-43