

TOXIC SHOCK SYNDROME (TSS) INVESTIGATION FORM

☐ STAPHYLOCOCCAL TSS

☐ STREPTOCOCCAL TSS (*Group A Streptococcus*)

BASIC DEMOGRAPHIC DATA

Last Name: _____ First Name: _____ Middle Name: _____

DOB: ____/____/____ Age: _____ ☐ years ☐ months Current Sex: ☐ Female ☐ Male ☐ Unknown

Is the patient deceased? ☐ No ☐ Unknown ☐ Yes Date of Death: ____/____/____

Street Address 1: _____ Street Address 2: _____

City: _____ State: _____ Zip Code: _____ County: _____

Home Phone: (____) - ____ - ____ Cell Phone: (____) - ____ - ____ Work Phone: (____) - ____ - ____ Ext. _____

Ethnicity: ☐ Hispanic or Latino ☐ Not Hispanic or Latino ☐ Unknown

Race: ☐ American Indian/Alaska Native ☐ Asian ☐ Black/African American ☐ Native Hawaiian/Other Pacific Islander ☐ White ☐ Unknown

INVESTIGATION SUMMARY

Investigation Start Date: ____/____/____ Investigation Status: ☐ Open ☐ Closed Investigator: _____

STREPTOCOCCAL TSS OTHER PATIENT INFORMATION

Type of Insurance: ☐ Indian Health Service (HIS) ☐ Medicaid/state assistance program ☐ Medicare ☐ Military/VA
☐ No health care coverage ☐ Other (specify) _____ ☐ Private/HMO/PPO/Managed care plan ☐ Unknown

Weight: ____ lbs ____ oz OR ____ kg OR ☐ Unknown Height: ____ ft ____ in OR ____ cm OR ☐ Unknown

REPORTING SOURCE

Date of Report: ____/____/____ Reporting Source: _____

CLINICAL

Physician's Name: _____ Phone Number: (____) - ____ - ____ Ext. _____

Was patient hospitalized for this illness? ☐ No ☐ Unknown ☐ Yes If yes: Hospital Name: _____

Admission Date: ____/____/____ Discharge Date: ____/____/____ Duration of Stay _____ day(s)

Diagnosis Date: ____/____/____ Illness Onset Date: ____/____/____ Illness End Date: ____/____/____

Age at Onset: _____ ☐ days ☐ hours ☐ minutes ☐ months ☐ unknown ☐ weeks ☐ years

Did the patient die from this illness? ☐ No ☐ Unknown ☐ Yes Date of Death: ____/____/____

Streptococcal TSS (*Group A Streptococcus*):

Types of infection caused by organism:

- | | | |
|---|--|---|
| <input type="checkbox"/> Abscess (not skin) | <input type="checkbox"/> Epiglottitis | <input type="checkbox"/> Peritonitis |
| <input type="checkbox"/> Bacteremia without focus | <input type="checkbox"/> Hemolytic Uremic Syndrome (HUS) | <input type="checkbox"/> Pneumonia |
| <input type="checkbox"/> Cellulitis | <input type="checkbox"/> Meningitis | <input type="checkbox"/> Puerperal sepsis |
| <input type="checkbox"/> Chorioamnionitis | <input type="checkbox"/> Necrotizing fasciitis | <input type="checkbox"/> Septic abortion |
| <input type="checkbox"/> Conjunctivitis | <input type="checkbox"/> Osteomyelitis | <input type="checkbox"/> Septic Arthritis |
| <input type="checkbox"/> Empyema | <input type="checkbox"/> Other (specify): _____ | <input type="checkbox"/> <i>Streptococcal</i> toxic-shock syndrome (STSS) |
| <input type="checkbox"/> Endocarditis | <input type="checkbox"/> Otitis media | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Endometritis | <input type="checkbox"/> Pericarditis | |

Bacterial species isolated from any normally sterile site (**Select**):

☐ Group A streptococcus, invasive OR ☐ Streptococcal toxic-shock syndrome Date first positive culture obtained: ____/____/____

Sterile sites from which organism isolated (**Select**):

☐ Blood ☐ Cerebral Spinal Fluid (CSF) ☐ Joint ☐ Pericardial fluid ☐ Pleural fluid

Nonsterile sites from which organism isolated: ☐ Amniotic fluid ☐ Middle ear ☐ Other _____ ☐ Placenta ☐ Sinus ☐ Wound

Did the patient have any of the following underlying conditions?

- | | | |
|---|---|---|
| <input type="checkbox"/> AIDS | <input type="checkbox"/> Deaf/Profound hearing loss | <input type="checkbox"/> Nephrotic Syndrome |
| <input type="checkbox"/> Alcohol abuse | <input type="checkbox"/> Diabetes Mellitus | <input type="checkbox"/> None |
| <input type="checkbox"/> Asthma | <input type="checkbox"/> Emphysema/COPD | <input type="checkbox"/> Obesity |
| <input type="checkbox"/> Atherosclerotic cardiovascular disease (ASCVD)/CAD | <input type="checkbox"/> Heart Failure/CHF | <input type="checkbox"/> Organ Transplant: _____ |
| <input type="checkbox"/> Burns | <input type="checkbox"/> HIV | <input type="checkbox"/> Other Malignancy: _____ |
| <input type="checkbox"/> Cerebral vascular accident (CVA) stroke | <input type="checkbox"/> Hodgkin's Disease | <input type="checkbox"/> Other prior illness: _____ |
| <input type="checkbox"/> Cirrhosis/Liver Failure | <input type="checkbox"/> Immunoglobulin Deficiency | <input type="checkbox"/> Renal Failure/Dialysis |
| <input type="checkbox"/> Cochlear implant | <input type="checkbox"/> Immunosuppressive therapy (steroids) | <input type="checkbox"/> Sickle Cell Anemia |
| <input type="checkbox"/> Complement Deficiency | <input type="checkbox"/> IVDU | <input type="checkbox"/> Splenectomy/Asplenia |
| <input type="checkbox"/> CSF Leas (2° trauma/surgery) | <input type="checkbox"/> Leukemia | <input type="checkbox"/> Systemic Lupus Erythematosus (SLE) |
| <input type="checkbox"/> Current smoker | <input type="checkbox"/> Multiple Myeloma | <input type="checkbox"/> Unknown |

EPIDEMIOLOGIC

Streptococcal TSS (Group A *Streptococcus*):

If < 6 years of age is the patient in daycare (i.e., supervised group of ≥2 unrelated children for > 4 hours/week)? ☐ No ☐ Unknown ☐ Yes

Daycare Name: _____

Was the patient a resident of a nursing home or other chronic care facility at the time of first positive culture? ☐ No ☐ Unknown ☐ Yes

Chronic Care Facility Name: _____

Is this case part of an outbreak? ☐ No ☐ Unknown ☐ Yes If yes, outbreak name: _____ Number of Prophylaxed Contacts: _____

Staphylococcal TSS:

Is this patient associated with a day care facility? ☐ No ☐ Unknown ☐ Yes Is this patient a food handler? ☐ No ☐ Unknown ☐ Yes

Is this case part of an outbreak? ☐ No ☐ Unknown ☐ Yes If yes, outbreak name: _____

Streptococcal & Staphylococcal TSS:

Case Status: ☐ Confirmed ☐ Not a Case ☐ Probable ☐ Suspect ☐ Unknown MMWR Week: _____ MMWR Year: _____

ADMINISTRATIVE

General Comments: _____

PHA4 SUPERVISOR REVIEW

Date Due: ____ / ____ / ____ Investigation ready for supervisor review: ☐ Reviewed (Complete) ☐ Reviewed (Incomplete)

Date investigation ready for supervisor review: ____ / ____ / ____ ☐ Reviewed (Not a case) ☐ Yes

Review comments (completed by supervisor): _____

CONTACT ATTEMPTS

Physician Contact Date(s):

1st Attempt: ____ / ____ / ____ 2nd Attempt: ____ / ____ / ____ 3rd Attempt: ____ / ____ / ____

Patient Contact Date(s):

1st Attempt: ____ / ____ / ____ Time: _____ ☐ AM ☐ PM 2nd Attempt: ____ / ____ / ____ Time: _____ ☐ AM ☐ PM

3rd Attempt: ____ / ____ / ____ Time: _____ ☐ AM ☐ PM

Regular Letter Mailed: ____ / ____ / ____

Certified Letter Mailed: ____ / ____ / ____

Was clinical information obtained from the physician or patient? ☐ Yes ☐ No

IF NO CLINICAL INFORMATION AVAILABLE, STOP HERE. OTHERWISE CONTINUE INVESTIGATION.

CASE REQUIREMENTS

Streptococcal & Staphylococcal TSS:

Hypotension, based on lowest systolic blood pressure (SBP):

SBP ≤ 90 mmHg in adults: ☐ No ☐ Unknown ☐ Yes **OR** SBP $< 5^{\text{th}}$ percentile for children < 16 years: ☐ No ☐ Unknown ☐ Yes

Rash:

Generalized erythematous macular rash (may desquamate): ☐ No ☐ Unknown ☐ Yes

Coagulopathy:

Platelets $\leq 100,000/\text{mm}^3$: ☐ No ☐ Unknown ☐ Yes **OR** Disseminated Intravascular Coagulation (DIC): ☐ No ☐ Unknown ☐ Yes

Liver Involvement:

ALT/AST/Total Bilirubin $\geq 2\times$ upper limit of normal: ☐ No ☐ Unknown ☐ Yes **OR**

Patients with existing renal disease > 2 -fold elevation over baseline: ☐ No ☐ Unknown ☐ Yes

Streptococcal TSS (Group A *Streptococcus*):

Renal Impairment:

Adult creatinine ≥ 2 mg/dL: ☐ No ☐ Unknown ☐ Yes **OR**

Any age creatinine $\geq 2\times$ upper limit of normal: ☐ No ☐ Unknown ☐ Yes **OR**

Patients with existing renal disease creatinine > 2 -fold elevation over baseline: ☐ No ☐ Unknown ☐ Yes

Acute Respiratory Distress Syndrome (ARDS):

Acute onset diffuse pulmonary infiltrates (via CXR) **and** hypoxemia **not** caused by cardiac failure: ☐ No ☐ Unknown ☐ Yes **OR**

Diffuse capillary leak after acute onset generalized edema **or** pleural/peritoneal effusions with hypoalbuminemia: ☐ No ☐ Unknown ☐ Yes

Soft-Tissue Necrosis:

Necrotizing fasciitis: ☐ No ☐ Unknown ☐ Yes **OR** Necrotizing myositis: ☐ No ☐ Unknown ☐ Yes **OR** Gangrene: ☐ No ☐ Unknown ☐ Yes

Staphylococcal TSS:

Renal Impairment:

Blood Urea nitrogen (BUN) or Creatinine $\geq 2\times$ upper limit of normal: ☐ No ☐ Unknown ☐ Yes **OR**

Urinary sedimentation with pyuria (≥ 5 leukocytes/high-power field) in absence of urinary tract infection: ☐ No ☐ Unknown ☐ Yes

Gastrointestinal:

Vomiting or diarrhea at illness onset: ☐ No ☐ Unknown ☐ Yes

Muscular:

Severe myalgia: ☐ No ☐ Unknown ☐ Yes **OR** Creatinine phosphokinase $\geq 2\times$ upper limit of normal: ☐ No ☐ Unknown ☐ Yes

Mucous Membrane:

Vaginal, oropharyngeal, or conjunctival hyperemia (redness): ☐ No ☐ Unknown ☐ Yes

High Fever:

High Fever ($\geq 102.0^\circ\text{F}$): ☐ No ☐ Unknown ☐ Yes

STAPHYLOCOCCAL TSS CULTURE INFORMATION

Was *Staphylococcus aureus* present in the vagina: ☐ No ☐ Unknown ☐ Yes

If *S. aureus* present in vagina, is it resistant to penicillin and ampicillin only: ☐ No ☐ Unknown ☐ Yes

Was patient taking antibiotics when culture(s) performed: ☐ No ☐ Unknown ☐ Yes

STAPHYLOCOCCAL TSS MENSTRUATION INFORMATION

Does the patient use tampons: ☐ No ☐ Unknown ☐ Yes Brand Most Frequently Used: _____

Style of Brand Most Frequently Used: ☐ Junior/Slender ☐ Regular ☐ Super ☐ Super-Plus ☐ Unknown

How was information in this section verified: ☐ Interviewer Viewing Product Box ☐ Patient Viewing Product Box
☐ Patient's Memory ☐ Other: _____

Has patient had similar illness in past during menstrual period: ☐ No ☐ Unknown ☐ Yes If yes, how many episodes of similar illness: _____

STAPHYLOCOCCAL TSS CASE CLASSIFICATION		Create ALNBS Toxic-shock syndrome, staphylococcal investigation
1	Did the patient have a high fever ($\geq 102.0^{\circ}\text{F}$)?	<input type="checkbox"/> No <input type="checkbox"/> Unknown <input type="checkbox"/> Yes
2	Did the patient have a diffuse macular erythematous (red) rash?	<input type="checkbox"/> No <input type="checkbox"/> Unknown <input type="checkbox"/> Yes
3	Was there desquamation 1-2 weeks after rash onset (not required if patient dies before desquamation occurs)?	<input type="checkbox"/> No <input type="checkbox"/> Unknown <input type="checkbox"/> Yes
4	Was the patient hypotensive, as defined within investigation?	<input type="checkbox"/> No <input type="checkbox"/> Unknown <input type="checkbox"/> Yes
5	Was multi-organ involvement characterized by at least 3 of the following, as defined within investigation? <input type="checkbox"/> Coagulopathy (platelets $\leq 100,000/\text{mm}^3$) <input type="checkbox"/> Renal Impairment <input type="checkbox"/> Liver Involvement <input type="checkbox"/> Acute Respiratory Distress Syndrome (ARDS) <input type="checkbox"/> Generalized Erythematous Rash <input type="checkbox"/> Soft-tissue Necrosis	<input type="checkbox"/> No <input type="checkbox"/> Unknown <input type="checkbox"/> Yes
6	Were both laboratory results negative (if obtained)? <input type="checkbox"/> Blood and CSF cultures negative for everything but <i>Staphylococcus aureus</i> <input type="checkbox"/> Rocky Mountain spotted fever, leptospirosis, or measles serologies	<input type="checkbox"/> No <input type="checkbox"/> Unknown <input type="checkbox"/> Yes
Confirmed: 1 - 6		Probable: Any four combinations of 1 – 5 with 6 required
STREPTOCOCCAL TSS CASE CLASSIFICATION		Create ALNBS Streptococcal toxic-shock syndrome investigation
1	Was the patient hypotensive, as defined within investigation?	<input type="checkbox"/> No <input type="checkbox"/> Unknown <input type="checkbox"/> Yes
2	Was multi-organ involvement characterized by at least 2 of the following, as defined with investigation? <input type="checkbox"/> Coagulopathy (platelets $\leq 100,000/\text{mm}^3$ or DIC) <input type="checkbox"/> Renal Impairment <input type="checkbox"/> Liver Involvement <input type="checkbox"/> Acute Respiratory Distress Syndrome (ARDS) <input type="checkbox"/> Rash <input type="checkbox"/> Soft-Tissue Necrosis	<input type="checkbox"/> No <input type="checkbox"/> Unknown <input type="checkbox"/> Yes
3	Does the treating physician feel this is a case of Streptococcal toxic-shock syndrome?	<input type="checkbox"/> No <input type="checkbox"/> Unknown <input type="checkbox"/> Yes
4	Was group A <i>Streptococcus</i> isolated from a normally sterile site (blood, CSF & joint/pleural/pericardial fluid)?	<input type="checkbox"/> No <input type="checkbox"/> Unknown <input type="checkbox"/> Yes
5	Was group A <i>Streptococcus</i> isolated from a non-sterile site?	<input type="checkbox"/> No <input type="checkbox"/> Unknown <input type="checkbox"/> Yes
Confirmed: 1, 2 & 4		Probable: 1, 2, 3 & 5