

# Ohio Department of Health

## Streptococcal Toxic Shock Syndrome (STSS) Surveillance Report

Please complete this form for each patient who has been diagnosed with STSS.

The clinical case definition for STSS is printed on the reverse side.

If you have any questions regarding completion of this form, you may contact Infectious Disease Control (614) 466-0265.

Please send the completed form to the local health department within whose jurisdiction the patient resides.

### Demographic data

1. Last Name		2. First Name		Local Case ID (ODH use only)	
3. Address				Telephone	
4. City		5. County	6. State	7. ZIP	
8. Date of birth		9. Age			
month          day          year _____ / _____ / _____		_____ years          _____ months			
10. Race			11. Ethnicity		
<input type="checkbox"/> American Indian/Alaska Native <input type="checkbox"/> Black <input type="checkbox"/> Asian or Pacific Islander <input type="checkbox"/> White <input type="checkbox"/> Unknown			<input type="checkbox"/> Hispanic <input type="checkbox"/> Non-Hispanic <input type="checkbox"/> Unknown		
12. Sex			13. Specimen collection date		Status (ODH use only)
<input type="checkbox"/> Female <input type="checkbox"/> Male <input type="checkbox"/> Unknown					

### Basic clinical data

A. Group A streptococcus was isolated from the following normally sterile site:

blood             CSF             pleural fluid  
 pericardial fluid     bone             synovial fluid  
 other (please thoroughly describe the site from which the specimen was obtained and how the specimen was obtained)

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**OR**

Group A streptococcus was isolated from the following non-sterile site (please describe thoroughly)

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B. Date of onset of symptoms

/   /

C. Clinical signs and severity (required to confirm case definition):

1. Hypotension            Lowest systolic BP \_\_\_\_\_ mm Hg

2. Renal impairment        Highest creatinine \_\_\_\_\_ mg/dL

3. Coagulopathy            Lowest platelets \_\_\_\_\_ /mm<sup>3</sup>

4. Liver involvement        Highest values for: AST (SGOT) \_\_\_\_\_    ALT (SGPT) \_\_\_\_\_    Total Bilirubin \_\_\_\_\_

5. Pulmonary involvement:

Adult RDS                     Yes             No             Unknown

Pleural/peritoneal effusion     Yes             No             Unknown

Lowest effusion albumin \_\_\_\_\_ mg/dL

6. Rash

Type                     generalized     focal

macular         papular     bullous     vesicular     petechial     other

7. Soft-tissue necrosis         Necrotizing fasciitis             Necrotizing myositis             Gangrene

**OVER**

Person completing this form:

Name	Title		
Facility Name			Phone Number
Address			
City	State	ZIP	Date

### Streptococcal Toxic Shock Syndrome (CDC, Revised 9/96)

#### Clinical Description

Streptococcal toxic-shock syndrome (STSS) is a severe illness associated with invasive or noninvasive group A streptococcal (*Streptococcus pyogenes*) infection [group A strep isolated from a sterile or non-sterile site]. STSS may occur with infection at any site but most often occurs in association with infection of a cutaneous lesion. Signs of toxicity and a rapidly progressive clinical course are characteristic, and the case-fatality rate may exceed 50%.

#### Clinical Case Definition

An illness with the following clinical manifestations occurring within the first 48 hours of hospitalization or, for a nosocomial case, within the first 48 hours of illness:

- Hypotension defined by a systolic blood pressure  $\leq 90$  mm Hg for adults or less than the fifth percentile by age for children aged <16 years, **and**
- Multi-organ involvement characterized by **two or more** of the following:
  1. Renal impairment: Creatinine  $\geq 2$  mg/dL ( $\geq 177$   $\mu$ mol/L) for adults or greater than or equal to twice the upper limit of normal for age. In patients with preexisting renal disease, a greater than twofold elevation over the baseline level
  2. Coagulopathy: Platelets  $\leq 100,000/\text{mm}^3$  ( $\leq 100 \times 10^6/\text{L}$ ) or disseminated intravascular coagulation, defined by prolonged clotting times, low fibrinogen level, and the presence of fibrin degradation products
  3. Liver involvement: Alanine aminotransferase, aspartate aminotransferase, or total bilirubin levels greater than or equal to twice the upper limit of normal for the patient's age. In patients with preexisting liver disease, a greater than two-fold increase over the baseline level
  4. 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
  5. A generalized erythematous macular rash that may desquamate
  6. Soft tissue necrosis, including necrotizing fasciitis or myositis, or gangrene

#### Laboratory criteria for diagnosis

Isolation of group A *Streptococcus*

## Guide to completion of the STSS form

(ODH form HEA3823, revised 6/98)

Only specimens from patients meeting the STSS clinical case definition should be reported on this form.

- If the patient meets the clinical case definition for STSS, please note that the laboratory confirmation includes isolation of Group A streptococcus from EITHER a normally sterile OR a normally non-sterile site.
- If the patient does not meet the case definition for STSS and the organism was isolated from a normally sterile site, please complete the Invasive GAS Surveillance Report (ODH form HEA3820 revised 6/98) instead of this form.

- STSS IS A CLASS A(3) REPORTABLE DISEASE, WHICH MEANS "CASE REPORTS AND REPORTS OF POSITIVE LABORATORY RESULTS . . . SHALL BE PROVIDED BY THE CLOSE OF EACH WORKING WEEK AFTER THE EXISTENCE OF SUCH CASE, SUSPECTED CASE, OR POSITIVE LABORATORY RESULT IS KNOWN" (OAC 3701-3-02, 3701-3-05, REVISED JULY 1998).
- IF YOU COMPLETE AND SUBMIT THIS FORM, YOU DO NOT NEED TO COMPLETE AND SUBMIT A MORBIDITY CARD (ODH form 3812.11 rev. 12/81).
- WHEN YOU HAVE COMPLETED THIS FORM, SEND IT TO THE LOCAL HEALTH DEPARTMENT OF THE JURISDICTION IN WHICH THE PATIENT LIVES, WHICH WILL FORWARD IT TO ODH IN COLUMBUS.

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### HOW TO COMPLETE SPECIFIC FIELDS

#### Demographic data

**1. Last name**

The patient's last name

**2. First name**

The patient's first name

**Local case ID (for ODH use only)**

The ODH clerk who enters the data from this form into the National Electronic Telecommunications Surveillance System (NETSS) database for transmission to CDC will assign an Ohio identification number to this case report.

**3. Patient address**

This should be the address where the patient resides. If the patient is a resident in a long-term care facility at the time of onset of illness, the address (city, county, zip code) of that facility should be listed here.

**Telephone**

The patient's home telephone number (please include the area code).

**4. City**

Of the patient's residence (as in item #3)

**5. County**

Of the patient's residence (as in item #3)

**6. State**

Of the patient's residence (as in item #3)

**7. Zip code**

Of the patient's residence (as in item #3)

*Data in fields 3, 4, 5, 6, and 7 allow*

*a. determination of duplicates*

*b. analysis by geographic location, most often at the county level, but also at city and zip code levels*

**8. Date of birth**

Please provide the date of birth in the format: month/date/year. *Data in this field are used to describe the distribution of disease by age.*

**9. Age**

If the patient is over 12 months, please indicate the age with the label "year(s)." If the patient is from 1 through 12 months of age, please indicate age with the label "month(s)." If the patient is less than 1 month old, please indicate the age as "0 months."

**10. Race**

Please complete.

**11. Ethnicity**

Please complete.

**12. Sex**

Please complete.

*Data in fields 9, 10, 11, and 12 are used to describe the distribution of disease and to provide clues as to possible risk factors for disease.*

**13. Specimen collection date**

Please complete in the month/date/year format. *We use this date to detect seasonal trends in the type of infection.*

**Status (ODH use only)**

ODH epidemiologists will complete this field when the status of the case has been determined as confirmed, probable, or suspected.

**Basic clinical data**

**A. Specimen source**

This field **MUST** be completed. Please indicate the normally sterile or non-sterile site from which the specimen was obtained. If the specimen was from a normally sterile site other than the ones listed with boxes or from a normally non-sterile site, please describe the site thoroughly.

### ***B. Date of onset of symptoms***

This date might be different from the collection of specimen date (#13) and will *provide some measure of how rapidly these infections progress.*

### ***C. Clinical signs and severity***

Please complete the values for this patient that led to the diagnosis of STSS. This information might be available only on the patient chart. The case definition is included below. *Data in these fields are used to determine the status of this case (confirmed, probable, or suspected).*

### ***Person completing this form***

Please complete this section in its entirety. *This will allow state and local health department personnel to contact you in case there are any questions about the form, if any additional information is required from you, if any clusters or regional outbreaks need to be investigated, or to notify you of conclusions from the data you and your colleagues have provided.*

## **STREPTOCOCCAL TOXIC SHOCK SYNDROME (CDC, REVISED 9/96)**

### **Clinical Description**

Streptococcal toxic-shock syndrome (STSS) is a severe illness associated with invasive or noninvasive group A streptococcal (*Streptococcus pyogenes*) infection [group A strep isolated from a sterile or non-sterile site]. STSS may occur with infection at any site but most often occurs in association with infection of a cutaneous lesion. Signs of toxicity and a rapidly progressive clinical course are characteristic, and the case-fatality rate may exceed 50%.

### **Clinical Case Definition**

An illness with the following clinical manifestations occurring within the first 48 hours of hospitalization or, for a nosocomial case, within the first 48 hours of illness:

- Hypotension defined by a systolic blood pressure  $\leq 90$  mm Hg for adults or less than the fifth percentile by age for children aged  $<16$  years, **AND**
- Multi-organ involvement characterized by **two or more** of the following:
  1. Renal impairment: Creatinine  $\geq 2$  mg/dL ( $\geq 177$   $\mu$ mol/L) for adults or greater than or equal to twice the upper limit of normal for age. In patients with preexisting renal disease, a greater than twofold elevation over the baseline level.
  2. Coagulopathy: Platelets  $\leq 100,000/\text{mm}^3$  ( $\leq 100 \times 10^6/\text{L}$ ) or disseminated intravascular coagulation, defined by prolonged clotting times, low fibrinogen level, and the presence of fibrin degradation products
  3. Liver involvement: Alanine aminotransferase, aspartate aminotransferase, or total bilirubin levels greater than or equal to twice the upper limit of normal for the patient's age. In patients with preexisting liver disease, a greater than two-fold increase over the baseline level
  4. 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
  5. A generalized erythematous macular rash that may desquamate
  6. Soft tissue necrosis, including necrotizing fasciitis or myositis, or gangrene

### **Laboratory criteria for diagnosis**

Isolation of group A *Streptococcus*

**Case classification**

Probable: a case that meets the clinical case definition in the absence of another identified etiology for the illness and with isolation of group A *Streptococcus* from a nonsterile site

Confirmed: a case that meets the clinical case definition and with isolation of group A *Streptococcus* from a normally sterile site (e.g., blood or cerebrospinal fluid or, less commonly, joint, pleural, or pericardial fluid)

Thank you very much. If you have any questions, please call the Infectious Disease Investigation Section, 614-466-0265.