**09-ID-57**

**Committee:** Infectious

**Title: Public Health Reporting and National Notification for Shigellosis**

## I. Statement of the Problem

CSTE position statement 07-EC-02 recognized the need to develop an official list of nationally notifiable conditions and a standardized reporting definition for each condition on the official list. The position statement also specified that each definition had to comply with American Health Information Community recommended standards to support "automated case reporting from electronic health records or other clinical care information systems." In July 2008, CSTE identified sixty-eight conditions warranting inclusion on the official list, each of which now requires a standardized reporting definition.

## II. Background and Justification

*Background*

Shigellosis is characterized by diarrhea with fever, bloody stools, and mucus in the stools, cramps, abdominal pain, tenesmus and nausea. Asymptomatic cases are possible. Food- and waterborne outbreaks may occur. Outbreaks in daycare centers are common. International travelers are at risk of contracting shigellosis. Surveillance for shigellosis is necessary to identify and control outbreaks.

*Justification*

Shigellosis meets the following criteria for a nationally and **standard** notifiable condition, as specified in CSTE position statement 08-EC-02:

- A majority of state and territorial jurisdictions—or jurisdictions comprising a majority of the US population—have laws or regulations requiring **standard** reporting of Shigellosis to public health authorities
- CDC requests **standard** notification of Shigellosis to federal authorities
- CDC has condition-specific policies and practices concerning the agency's response to, and use of, notifications.

## III. Statement of the desired action(s) to be taken

CSTE requests that CDC adopt this standardized reporting definition for Shigellosis to facilitate more timely, complete, and standardized local and national reporting of this condition.

## IV. Goals of Surveillance

To provide information on the temporal, geographic, and demographic occurrence of Shigellosis to facilitate its prevention and control.

## V. Methods for Surveillance

Surveillance for Shigellosis should use the sources of data and the extent of coverage listed in Table V below.

**Table V.** Recommended sources of data and extent of coverage for ascertaining cases of Shigellosis.

| | Coverage | |
|---|---|---|
| Source of data for case ascertainment | Population-wide | Sentinel sites |
| clinician reporting | X | |
| laboratory reporting | X | |
| reporting by other entities (e.g., hospitals, veterinarians, pharmacies) | X | |
| death certificates | | |
| hospital discharge or outpatient records | X | |
| extracts from electronic medical records | X | |
| telephone survey | | |
| school-based survey | | |
| other _____ | | |

## VI. Criteria for Reporting

Reporting refers to the process of healthcare providers or institutions (e.g., clinicians, clinical laboratories, hospitals) submitting basic information to governmental public health agencies about cases of illness that meet certain reporting requirements or criteria. The purpose of this section is to provide those criteria to determine whether a specific illness should be reported.

### A. Narrative description of criteria to determine whether a case should be reported to public health authorities

Report any illness to public health authorities that meets any of the following criteria:

1. Any person with *Shigella* isolated from a clinical specimen.
2. A person with diarrhea who is a contact of a person with confirmed *Shigella* infection or is a member of a risk group defined by public health authorities during an outbreak.

*Other recommended reporting procedures*

- All cases of Shigellosis should be reported.
- Reporting should be on-going and routine.
- Frequency of reporting should follow the state health department's routine schedule.

**B. Table of criteria to determine whether a case should be reported to public health authorities**

**Table VI-B.** Table of criteria to determine whether a case should be reported to public health authorities. Requirements for reporting are established under State and Territorial laws and/or regulations and may differ from jurisdiction to jurisdiction. These criteria are suggested as a standard approach to identifying cases of this condition for purposes of reporting, but reporting should follow State and Territorial law/regulation if any conflicts occur between these criteria and those laws/regulations.

| **Criterion** | **Reporting** | |
|---|---|---|
| *Clinical Evidence* | | |
| Diarrhea | | N |
| *Laboratory Evidence* | | |
| Isolation of *Shigella* from a clinical specimen | S | |
| *Epidemiologic Evidence* | | |
| Contact of a confirmed case of shigellosis | | O |
| Member of a risk group defined by the public health authorities during an outbreak | | O |

Notes:
S = This criterion alone is Sufficient to identify a case for reporting.
N = All "N" criteria in the same column are Necessary to identify a case for reporting.
O = At least one of these "O" (Optional) criteria in each category (i.e., clinical evidence and laboratory evidence) in the same column—in conjunction with all "N" criteria in the same column—is required to identify a case for reporting. (These optional criteria are alternatives, which means that a single column will have either no O criteria or multiple O criteria; no column should have only one O.)

**C. Disease Specific Data Elements:**

Disease-specific data elements to be included in the initial report are listed below.

*Epidemiological Risk Factors*

Food handler
Day care center attendee
Household contact of a day care center attendee
Day care center worker

MSM
Contact with recreational water
International travel in the 7 days prior to onset
    Countries visited

*Clinical Data*
Treatment with antimicrobial agents
    Name of medication
    Date treatment began
    Date treatment ended
Hospitalized
Duration of diarrhea in days

## VII. Case Definition

### A. Narrative description of criteria to determine whether a case should be classified as confirmed, probable (presumptive), or suspected (possible).

### Clinical description

An illness of variable severity characterized by diarrhea, fever, nausea, cramps, and tenesmus. Asymptomatic infections may occur.

### Laboratory criteria for diagnosis

Isolation of *Shigella* from a clinical specimen

### Case classification

*Probable*: a clinically compatible case that is epidemiologically linked to a confirmed case.

*Confirmed*: a case that meets the laboratory criteria for diagnosis. When available, O antigen serotype characterization should be reported.

### Comment

For users of the legacy National Electronic Telecommunications System for Surveillance (NETSS), laboratory-confirmed isolates are also reported via the Public Health Laboratory Information System (PHLIS), which is managed by the Foodborne and Diarrheal Diseases Branch, Division of Bacterial and Mycotic Diseases, National Center for Infectious Diseases, CDC. The National Electronic Disease Surveillance System (NEDSS) or NEDSS compatible systems will eventually replace PHLIS; users of NEDSS or compatible systems which report to CDC should not report via PHLIS.

Both asymptomatic infections and infections at sites other than the gastrointestinal tract, if laboratory confirmed, are considered confirmed cases that should be reported.

**B. Classification Tables**

Table VII-B lists the criteria that must be met for a case to be classified as confirmed, probable (presumptive), or suspected (possible).

**Table VII-B.** Table of criteria to determine whether a case is classified.

| **Criterion** | **Case Definition** | |
|---|---|---|
| | **Confirmed** | **Probable** |
| *Clinical Evidence* | | |
| Diarrhea | | N |
| Fever | | O |
| Bloody stools | | O |
| Mucus in stools | | O |
| Nausea | | O |
| Abdominal cramps | | O |
| Tenesmus | | O |
| *Laboratory Evidence* | | |
| Isolation of *Shigella* from a clinical specimen | S | |
| *Epidemiologic Evidence* | | |
| Contact of a confirmed case of shigellosis | | O |
| Member of a risk group defined by the public health authorities during an outbreak | | O |

Notes:
S = This criterion alone is Sufficient to classify a case.
N = All "N" criteria in the same column are Necessary to classify a case.
O = At least one of these "O" (Optional) criteria in each category (i.e., clinical evidence and laboratory evidence) in the same column—in conjunction with all "N" criteria in the same column—is required to classify a case.

**VIII. Period of Surveillance**

Surveillance should be on-going.

## IX. Data sharing/release and print criteria

Notification to CDC for confirmed and probable cases of shigellosis is recommended.

- Data will be used to determine the burden of illness due to *Shigella*, assess the effectiveness over time of control programs, and assess the progress toward shigellosis control. Data may also be used to compare case numbers with information from other foodborne disease surveillance systems. Electronic reports of shigellosis cases in NNDSS are also summarized weekly in the MMWR Tables. Annual case data on shigellosis is summarized in the yearly Summary of Notifiable Diseases.

- State-specific compiled data will continue to be published in the weekly and annual MMWR. In addition to those reports, the frequency of reports/feedback to the states and territories will be dependent on the current epidemiologic situation in the country. Frequency of cases, epidemiologic distribution, importation status transmission risk, and other factors will influence communications.

- State-specific compiled data will continue to be published in the weekly reports and annual MMWR Surveillance Summaries. All cases are verified with the states before publication.

## X. References

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