

Position Statement Template

Submission Date: 3/28/2005

Committee: Infectious Diseases
05-ID-08

Title: Serotype specific national reporting for Shigellosis

Statement of the Problem:

Shigellosis constitutes a major public health burden, with an estimated 448,000 cases occurring each year in the United States (1). Currently, shigellosis is listed among the nationally notifiable diseases to be reported through the National Notifiable Diseases Surveillance System (NNDSS). However, the case definition and reporting through NNDSS does not include serotype characterization. *Shigella* O antigen serotyping has been used as an international standard for subtyping, and can be performed by most state public health laboratories in the United States. Serotyping of *Shigella* isolates is important for detecting outbreaks, evaluating intervention strategies and guiding vaccine development strategies.

A laboratory-based national surveillance system, the Public Health Laboratory Information System (PHLIS), has been used to capture the serotype for *Shigella* isolates that are reported through public health laboratories.

With the advent of the National Electronic Diseases Surveillance System (NEDSS) and other compatible systems, there is an opportunity to integrate and enhance surveillance activities. A foodborne and diarrheal diseases program area module has been developed for NEDSS which includes shigellosis. This module is planned to collect information for the National Notifiable Diseases Surveillance System and for PHLIS. Information about specific *Shigella* serotypes may be collected in NEDSS or other compatible systems to allow more complete analysis of shigellosis surveillance by serotype.

Statement of the desired action(s) to be taken:

Adopt serotype-specific reporting of laboratory confirmed shigellosis cases.

Public Health Impact:

Reporting *Shigella* serotypes through NEDSS or compatible systems will enhance surveillance integration and efficiency, taking the place of the Public Health Laboratory Information System. Complete, accurate and timely data from surveillance of *Shigella* serotypes will allow enhanced estimates of the burden of disease, outbreak detection, and evaluation of *Shigella* control programs.

1. Mead PS, Slutsker L, Dietz V, et al. Food-related illness and death in the United States. *Emerg Infect Dis* 1999;5:607-25.

Shigellosis

2005 Proposed Case Definition

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. NEDSS or 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.

Coordination:

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Appendix 1

List of *Shigella* serotypes with SNOMED codes. This list is to be included in the NEDSS Foodborne and Diarrheal Diseases Program Area Module in the laboratory section. Other or incomplete serotypes of *Shigella* are to be written as indicated in the “Other serotype (written in)” option.

<i>Shigella</i> Serotype	SNOMED Code	<i>Shigella</i> Serotype	SNOMED Code
<i>Shigella</i> species	L-1E100	<i>Shigella boydii</i> 17	L-1E12A
<i>Shigella sonnei</i> (Subgroup D)	L-1E104	<i>Shigella boydii</i> 18	L-1E12B
<i>Shigella flexneri</i> serotype undetermined (Subgroup B)	L-1E102	<i>Shigella boydii</i> 19 [Provisional Serotype E16553]	L-1E12C
<i>Shigella flexneri</i> 1a [I:3,4 (7,8)]	L-1E116	<i>Shigella boydii</i> 20 [Provisional Serotype SH108(99-4528)]	L-1E12D
<i>Shigella flexneri</i> 1b [I: 6 (3,4)]	L-1E117	<i>Shigella dysenteriae</i> serotype undetermined (Subgroup A)	L-1E13E
<i>Shigella flexneri</i> 2a [II:3,4]	L-1E119	<i>Shigella dysenteriae</i> 1	L-1E105
<i>Shigella flexneri</i> 2b [II:7,8]	L-1E120	<i>Shigella dysenteriae</i> 2	L-1E106
<i>Shigella flexneri</i> 3a [III:6,7,8]	L-1E122	<i>Shigella dysenteriae</i> 3	L-1E107
<i>Shigella flexneri</i> 3b [III:3,4,6]	L-1E123	<i>Shigella dysenteriae</i> 4	L-1E108
<i>Shigella flexneri</i> 4a [IV: (3,4,7,8)]	L-1E126	<i>Shigella dysenteriae</i> 5	L-1E109
<i>Shigella flexneri</i> 4b [IV:6 (3,4)]	L-1E127	<i>Shigella dysenteriae</i> 6	L-1E110
<i>Shigella flexneri</i> 4c [IV:7,8]	L-1E13F	<i>Shigella dysenteriae</i> 7	L-1E111
<i>Shigella flexneri</i> 5a [V:3,4]	L-1E147	<i>Shigella dysenteriae</i> 8	L-1E112
<i>Shigella flexneri</i> 5b [V:7,8]	L-1E148	<i>Shigella dysenteriae</i> 9	L-1E113
<i>Shigella flexneri</i> 6 [VI:(3,4)]	L-1E129	<i>Shigella dysenteriae</i> 10	L-1E114

<i>Shigella flexneri</i> X variant [-:7,8]	L-1E130	<i>Shigella dysenteriae</i> 11	L-1E12F
<i>Shigella flexneri</i> Y variant [-:3,4]	L-1E131	<i>Shigella dysenteriae</i> 12	L-1E13A
<i>Shigella boydii</i> serotype undetermined (Subgroup C)	L-1E103	<i>Shigella dysenteriae</i> 13	L-1E13B
<i>Shigella boydii</i> 1	L-1E132	<i>Shigella dysenteriae</i> 14	L-1E13D
<i>Shigella boydii</i> 2	L-1E133	<i>Shigella dysenteriae</i> 15	L-1E13C
<i>Shigella boydii</i> 3	L-1E134	Provisional <i>Shigella</i> E670/74	L-1E11D
<i>Shigella boydii</i> 4	L-1E135	Provisional <i>Shigella</i> 3162-96	L-1E10C
<i>Shigella boydii</i> 5	L-1E136	Provisional <i>Shigella</i> 93-119	L-1E10F
<i>Shigella boydii</i> 6	L-1E137	Provisional <i>Shigella</i> 96-204	L-1E11A
<i>Shigella boydii</i> 7	L-1E138	Provisional <i>Shigella</i> 96-265	L-1E11B
<i>Shigella boydii</i> 8	L-1E139	Provisional <i>Shigella</i> Y394	L-1E11E
<i>Shigella boydii</i> 9	L-1E140	Provisional <i>Shigella</i> 88-893 [-: (6)]	L-1E10D
<i>Shigella boydii</i> 10	L-1E141	Provisional <i>Shigella</i> 89-141	L-1E10E
<i>Shigella boydii</i> 11	L-1E142	Provisional <i>Shigella</i> 3065-93	L-1E10B
<i>Shigella boydii</i> 12	L-1E143	Provisional <i>Shigella</i> E28938	L-1E11C
<i>Shigella boydii</i> 13	L-1E144	Other serotype (written in)	
<i>Shigella boydii</i> 14	L-1E145		
<i>Shigella boydii</i> 15	L-1E146		
<i>Shigella boydii</i> 16	L-1E11F		

Appendix 2

Codes associated with *Salmonella* infections

SNOMED

SNOMED codes are provided in Appendix 1. Codes are subject to change and should be updated accordingly.

ICD-10 codes (see <http://www3.who.int/icd/vol1htm2003/fr-icd.htm>)

- A03 Shigellosis**
- A03.0 Shigellosis due to *Shigella dysenteriae***
Group A shigellosis [Shiga-Kruse dysentery]
- A03.1 Shigellosis due to *Shigella flexneri***
Group B shigellosis
- A03.2 Shigellosis due to *Shigella boydii***
Group C shigellosis
- A03.3 Shigellosis due to *Shigella sonnei***
Group D shigellosis
- A03.8 Other shigellosis**
- A03.9 Shigellosis, unspecified**
Bacillary dysentery NOS

LOINC codes*

Component	LOINC #	Short Common Name
SHIGELLA SP IDENTIFIED	17576-0	Shigella XXX Cult

* Other LOINC codes may be applicable. LOINC codes are incomplete and undergoing revisions and additions; these codes may change accordingly.