

## 09-ID-03

**Committee:** Infectious

**Title:** Public Health Reporting and National Notification for *Vibrio cholerae* (Cholera)

### 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*

Cholera is characterized by profuse watery diarrhea, vomiting and dehydration. However, severity is variable and the disease may also be mild. Cholera occurs rarely in the United States with modern water treatment and sewage treatment systems. International travelers are at risk and may be exposed to cholera through contaminated food or water.

#### *Justification*

*Vibrio cholerae* (Cholera) 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 *Vibrio cholerae* (Cholera) to public health authorities;
- The Centers for Disease Control and Prevention (CDC) requests **standard** notification of *Vibrio cholerae* (Cholera)
- The CDC has condition-specific policies and practices concerning its 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 *Vibrio cholerae* (Cholera) 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 *Vibrio cholerae* (Cholera) to facilitate its prevention and control.

#### V. Methods for Surveillance

Surveillance for *Vibrio cholerae* (Cholera) 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 *Vibrio cholerae* (Cholera).

Source of data for case ascertainment	Coverage	
	Population-wide	Sentinel sites
clinician reporting	X	
laboratory reporting	X	
reporting by other entities (e.g., hospitals, veterinarians, pharmacies)	X	
death certificates	X	
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. A person with diarrhea and/or vomiting with a positive culture for toxigenic *Vibrio cholerae* O1 or *Vibrio cholerae* O139 from stool or vomitus.

2. A person with diarrhea and/or vomiting with a positive serologic test (anti-toxin or vibriocidal antibody on a single convalescent serum) for *Vibrio cholerae* O1 or *Vibrio cholerae* O139.

*Other recommended reporting procedures*

- All cases of *Vibrio cholerae* O1 and *Vibrio cholerae* O139 (Cholera) should be reported.
- Reporting should be on-going and routine.
- Reporting should be immediate.

**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
<i>Clinical Evidence</i>	
Diarrhea	O
Vomiting	O
<i>Laboratory Evidence</i>	
Isolation of toxigenic <i>V. cholerae</i> O1 or <i>V. cholerae</i> O139 from stool or vomitus	O
Positive serology test for <i>V. cholerae</i> O1 or <i>V. cholerae</i> O139	O

Notes:

O = At least one of these “O” (Optional) criteria in each category (i.e., clinical evidence and laboratory evidence) in the same column is required to identify a case for reporting.

**C. Disease Specific Data Elements:**

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

*Epidemiological Risk Factors*

International travel in 7 days prior to onset of illness

Countries visited

## VII. Case Definition

### A. Narrative description of criteria to determine whether a case should be classified as confirmed.

#### Clinical description

An illness characterized by diarrhea and/or vomiting; severity is variable.

#### Laboratory criteria for diagnosis

- Isolation of toxigenic (i.e., cholera toxin-producing) *Vibrio cholerae* O1 or O139 from stool or vomitus, or
- Serologic evidence of recent infection

#### Case classification

*Confirmed*: a clinically compatible illness that is laboratory confirmed

#### Comment

Illnesses caused by strains of *V. cholerae* other than toxigenic *V. cholerae* O1 or O139 should not be reported as cases of cholera. The etiologic agent of a case of cholera should be reported as either *V. cholerae* O1 or *V. cholerae* O139. Only confirmed cases should be reported to NNDSS by state health departments.

### B. Classification Tables

Table VII-B lists the criteria that must be met for a case to be classified as confirmed.

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

	Case Definition
Criterion	Confirmed
<i>Clinical Evidence</i>	
Diarrhea	O
Vomiting	O
<i>Laboratory Evidence</i>	
Isolation of toxigenic <i>V. cholerae</i> O1 or <i>V. cholerae</i> O139 from stool or vomitus	O
Positive serology test for <i>V. cholerae</i> O1 or <i>V. cholerae</i> O139	O

Notes:

O = At least one of these “O” (Optional) criteria in each category 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 of confirmed cases is recommended for cases of *Vibrio cholera*.
- Data will be used to determine the burden of illness due to cholera, assess the effectiveness over time of control programs, and assess the progress toward cholera control. Cholera is reportable to WHO. Data may also be used to look for vaccine failures, and compare case numbers with information from other disease surveillance systems. Electronic reports of cholera cases in NNDSS are also summarized weekly in the MMWR Tables. Annual case data on cholera 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 conducted at least once a year, 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**

1. Centers for Disease Control and Prevention (CDC). Case definitions for infectious conditions under public health surveillance. MMWR 1997;46(No. RR-10):1–57. Available from: <http://www.cdc.gov/mmwr/>
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