



Infectious Disease SOP—Cholera

Original Effective Date:

4/2014

Review / Revision Date:

7/20/17

Environmental Health
Procedure:

2017.07.004

Maintenance Steward: Epidemiology Supervisor

History: ☐ New ☒ Revised ☐ Archived**Organizational Scope:**
☐ Full Agency ☒ Administration ☒ Community Services ☒ Environmental Health ☐ Health Services
Frequency of Review:
☐ Annually ☒ Biennially ☐ 5 Years ☒ As Needed ☐ Other:
Location:

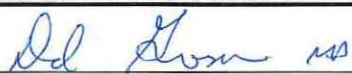
S-Drive: S: → Users → Common → Policies & Procedures


Website: www.lucascountyhealth.com/employee-login/


Hardcopy: Environmental Health and Community Services Director's Office

Archived Version(s): S:\CSRP\SOGs\Archives

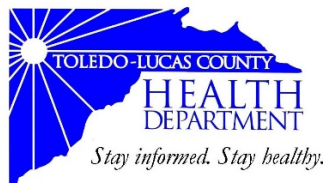
Requisite Signatures

☒

 Medical Director


 Date
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 Health Commissioner


 Date
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 Director of Environmental Health & Community Services


 Date



Infectious Disease SOP—Cholera

I. Policy

It is the policy of the Toledo-Lucas County Health Department (TLCHD) to adhere to all state, federal, and local statutes governing the management and case investigation of individual communicable disease cases and outbreaks within Lucas County.

II. Scope

This standard procedure applies to the Infectious Disease Program when investigating one case of cholera. When an outbreak occurs, call ODH ORBIT. In an outbreak, refer to the “Epi and Surveillance OB Procedure.”

III. Purpose

This procedure/process establishes guidelines for cholera investigations. Per the Ohio Administrative Code (OAC) 3701-3, cholera is a Class A disease and must be reported immediately via telephone according to 3701-3-02, 3701-3-03, 3701-3-04, and 3701-3-05 of the Administrative Code

IV. Background

Cholera is caused by *Vibrio cholerae* serotype O1 or O139 with an infectious dose estimated at 10⁸ – 10⁹ organisms. Severity of disease is contingent upon dose. The disease is often mild or without symptoms, but approximately 5% of infected persons can have severe disease. In severe cases, lack of treatment can lead to death within hours.

Most hospital laboratories have the ability to identify *Vibrio cholerae* by isolating the organism from stool or vomitus. All *V. cholerae* isolates should be sent to the ODH Laboratory for confirmation by contacting ODH Outbreak Response and Bioterrorism Investigation Team (ORBIT) at 614-995-5599 to arrange for the isolates to be shipped to the ODH Laboratory.

Humans are the primary source of *Vibrio cholerae*, though seawater, fish, and shellfish may serve as reservoirs. This disease occurs worldwide and is transmitted via ingestion of food or water contaminated with *V. cholerae*. Feces and vomitus also serve as sources in an epidemic. Person-to-person transmission is not common. The period of communicability for this disease is presumed to be during the diarrheal phase and until a few days after recovery. Untreated individuals can shed the organisms for as long as one week after cessation of diarrhea. This can persist for years in the chronic carrier state. The incubation period for cholera is a few hours to 5 days, with an average of 2-3 days.

V. Case Definition

A. Clinical Description

Cholera is an illness characterized by diarrhea and/or vomiting. Severity is variable.

B. Laboratory Criteria for Diagnosis

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

VI. Case Classification

A. Suspect:

1. A clinically compatible case with presumptive or pending lab results.
2. This case classification can be used for initial reporting to the ODH since the Centers for Disease Control and Prevention (CDC) has not developed a classification.

B. Confirmed:

1. A clinically compatible case that is laboratory confirmed

C. Not a case:

1. This status is not generally used when reporting a case, but may be used to reclassify a report if investigation revealed it was not a case.

Comment: Illnesses caused by strains of V. cholerae other than toxic V. cholerae O1 or O139 should be reported as cases of vibriosis.

VII. Procedure

The procedure/process of the Infectious Disease Program is to ensure that all cases are investigated in the same format.

When a report is received, a member of the ID team will complete an interview of the contact using the CDC Cholera and other Vibrio Illness Surveillance Report, which can be found in S:\CSRP\SOGs\Cholera.

A. Outbreak Response:

1. Call ODH ORBIT at 614-995-5599 for guidance

B. Public Health Investigation Process

1. ODRS:
 - a. Check to see if the patient is entered into ODRS. If not, enter the patient into ODRS
 - b. Key fields for ODRS reporting include:
 - i. Organism and serotype
 - ii. Import status
 - iii. Exposure site
 - iv. Travel history
2. Investigation
 - a. Case investigation should start as soon as possible following notification.
 - b. The Foodborne Illness Investigation Form & Toledo Lucas County HD progress notes may be utilized to record a food intake history and travel for the week prior to

symptoms. Potential sources of the bacteria include contaminated water, recreation activities, or ingestion of raw or undercooked seafood.

- c. Contact the patient's provider and/or hospital to obtain demographic information, symptoms, date of onset of symptoms, pertinent test results and travel history for the three weeks prior to onset.
- d. The epidemiologist will determine, in consultation with ODH vector/zoonotic division, if the laboratory results and clinical symptoms indicate a confirmed or probable case. The last case of reported *R. prowazekii* in Ohio was recorded in 1980 but cases have been reported in Mexico and Central America, Asia and Africa. *R. typhi* is more common.
- e. Once the provider and/or hospital ICP has been contacted call the patient/parent and complete the interview.
 - i. Provide education from the fact sheet on the IDCM website at <http://www.odh.ohio.gov/pdf/IDCM/cholera.pdf>. This information is also located in S:\CSRP\SOGs\Cholera.
 - ii. If no one answers, leave a message requesting a call back.
 - iii. Mail an informational letter requesting a callback.
 - iv. Continue to attempt phone contact with the patient for three more times in the span of 48 hours after the informational letter was sent.
 - v. Toledo Lucas County HD progress notes will be utilized to record the necessary information and travel activity, as well as contact with wildlife (possible squirrel contact), fleas, lice, and other biting arthropods.
 - vi. After interview is completed, ask the patient/parent whether they would like more information. If they express an interest, ask what the best method to deliver the information would be (e.g. e-mail, mail, etc.)
 - vii. Complete CDC's *Cholera and Other Vibrio Illness Surveillance Report* (https://www.cdc.gov/national-surveillance/PDFs/CDC5279_COVISvibriosis.pdf) and fax to ODH

3. Treatment

- a. Rehydration is the cornerstone of cholera treatment and oral rehydration salts (ORS), intravenous fluids and electrolytes should be administered in a timely manner and in adequate volumes in order to reduce fatalities.
- b. Patient needs to be reassessed every 1-2 hours and continue hydrating. After 6 hours (infants) or 3 hours (older patients), a full reassessment needs to be performed. If hydration has improved and patient can drink, switch to ORS solution.
- c. Additional treatment information can be found on CDC and WHO websites.

4. Isolation/Follow Up Specimens

- a. Ohio Administrative Code (OAC) 3701-3-13 (D) states: "a person with cholera who attends a child care center or works in a sensitive occupation shall be excluded from the child care center or work in the sensitive occupation and may return when the following conditions are met:
 - i. A child may return to a child care center after diarrhea has ceased.
 - ii. A person may return to work in a sensitive occupation after diarrhea has ceased, provided that his or her duties do not include food handling

- iii. A food handler may return to work after diarrhea has ceased and two consecutive follow-up stool specimens are negative for *V. cholerae*.
 - iv. Follow-up stool specimens should be obtained no earlier than 48 hours following the completion of antibiotic therapy. Collect the remaining specimen(s) not less than 24 hours apart.
- 5. Prophylaxis
 - a. Vaccine available but offers only brief and incomplete immunity.
- 6. Contacts (Exclusion)
 - a. If the case or any household member is employed in a sensitive occupation or attends a child care center, all household members should be tested for *V. cholerae* and treated if positive.
- 7. Notification
 - a. Notify TLCHD contacts immediately after investigation with patient (in sequential order)
 - i. Supervisor of Epidemiology
 - ii. Director of Community Services and Environmental Health
 - iii. Medical Director
 - iv. Health Commissioner
 - b. The food sanitarian supervisor office will be advised if a licensed food establishment is noted in the food history. A licensed sanitarian will follow up with an inspection as appropriate.
 - c. Public health recommendations and interventions will be shared with the public by the PIO or to specific individuals within 6 hours of identification of the agent as determined by ODH and supervisory staff at the local health department. An OPHCS alert will be distributed within 12 hours of a positive test result as determined by supervisory local health department staff and ODH.
- 8. Documentation
 - a. Enter information into ODRS as it is obtained.
 - b. Include a note documenting investigation, education, and intervention.

Sample: Spoke with mother by phone on [date]. EDUCATION: Reviewed disease facts, transmission, and symptoms. DISEASE COURSE: Client has history of [medical conditions] and started [symptoms] on [date]. Started [treatment] on [date]. HOUSEHOLD: HH contacts include [relationships]. All are [asymptomatic/symptomatic] [Include information about sensitive settings for HH contacts]. OCCUPATION: [job] TRAVEL HISTORY: [Include information about travel history within the past 2-3 weeks]. MAILING: Mailed fact sheet and cover letter to home address.
 - c. Include a note for each occupation, activity, or other notification and any actions taken.
- 9. Closing a case
 - a. Ensure that all available information is entered into ODRS before closing. Close case and print record. Staple with investigation sheet and any related documents and file in the appropriate file drawer for the current year located in the CSRP office.

C. Appendices

None

VIII. Reference/Investigation Forms

- A. Cholera Disease Factsheet is located in S:\CSRP\SOGs\Cholera.
- B. For additional information, please refer to the ODH IDCM at:
<http://www.odh.ohio.gov/pdf/IDCM/cholera.pdf>

IX. Maintenance

A. Review

1. The Infectious Disease standard operating procedures are to be reviewed every other year or as needed to ensure compliance with both agency and accreditation standards.
2. If guidance/recommendations from the Centers for Disease Control, Ohio Department of Health or law changes regarding this infectious disease, TLCHD will follow the most up-to-date guidance and adjust the SOP(s) as needed.

B. Revision

1. All changes made to this SOP are to be noted on the **Record of Change**. Substantial changes will require renewed signatures from all applicable parties. This includes changes to the intent, scope, procedures, or policy statement.
2. Changes in style, format, grammar or minor error correction will not require renewed signatures but must be indicated on the Record of Change.

Record of Change

(Required for all procedures)

Date of Change	Changes Made By	Changes Made/Notes	Approved By