



Florida Department of Health

Cholera Guidance

Focus Area: Clinical Diagnosis and Treatment

Guidance Document Number 2010-2

Advisory for Clinicians: Importation of Cholera from Haiti

Version 1.1

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Summary:

- An ongoing epidemic of cholera in Haiti may result in introduction of cholera cases to Florida.
- Travelers who develop severe watery diarrhea, or diarrhea and vomiting, within 1 week after return from Haiti should seek medical attention immediately.
- Health care providers should request that stool specimens from suspected cases be cultured on media designed for isolation of *Vibrio cholerae*.
- Suspected cases of cholera should be reported immediately to the County Health Department; do not wait for laboratory confirmation.

This update clarifies when clinical specimens should be submitted to the Bureau of Laboratories for cholera testing, and summarizes new CDC recommendations for clinical management including an expanded list of antibiotic choices.

An outbreak of toxigenic *Vibrio cholerae* O1, serotype Ogawa, biotype El Tor is ongoing in Haiti. As of October 29, the Pan American Health Office reported a total of 4,714 cholera cases with 330 deaths. Florida has approximately 241,000 Haitian-born residents, representing 46% of the Haitian-born population residing in the United States. The majority reside in Miami-Dade (73,000), Broward (63,000), Palm Beach (41,000), and Orange (20,000) counties. Travel to and from Haiti has increased since the Haitian earthquake; this includes local Haitian residents visiting family in Haiti and relief workers who travel to and from Haiti via Florida. As a result, we can expect that some travelers returning from Haiti may become symptomatic with cholera en route to, or shortly after arrival in Florida. This health advisory provides some basic information about cholera and patient management.

The potential for spread in the United States is low because U.S. water, sanitation, and food systems minimize the risk for fecal contamination of food and water, the primary route of transmission in epidemics. During the 1991-1993 Latin American cholera epidemic, Florida had 13 imported cases of cholera reported in 1992, 7 cases in 1993, and 1-2 cases each year through 1997. No documented evidence of transmission within Florida was associated with these cases. Despite this, the Florida Department of Health (FDOH) wants to ensure that high-risk situations, such as cholera in a food-handler, clusters, or outbreaks are not missed.

Clinical features

The incubation period for cholera ranges from a few hours to 5 days (usually 2 -3 days). Infection most often causes few or no symptoms, but illness can sometimes be severe. With severe illness, rapid loss of fluids caused by watery diarrhea can lead to hypovolemic shock and without treatment, death can occur within hours. Symptoms of severe illness may include: sudden onset of profuse watery diarrhea (described as "rice-water stools"), vomiting, leg cramps, tachycardia, loss of skin turgor, dry mucous membranes, hypotension, and thirst.

Treatment

Detailed recommendations about rehydration and antibiotic treatment were released by CDC on November 1 (<http://www.cdc.gov/haiticholera/clinicalmanagement/>) and are summarized below.

Prompt restoration of lost fluids and salts is the primary goal of treatment. Dehydrated patients who can sit up and drink should be given oral rehydration solution (ORS) immediately and be encouraged to drink. Sports drinks are not an acceptable substitute. Adults can consume as much as 1000 ml of ORS per hour, and children as much as 20 ml/kg body weight per hour.

Patients with severe dehydration, stupor, coma, uncontrollable vomiting, or extreme fatigue that prevents drinking should be rehydrated intravenously. Ringer's Lactate solution is the best intravenous solution to use. Normal saline can be used in an emergency, but does not correct acidosis and may worsen electrolyte imbalance. Plain glucose (dextrose) solutions should not be used.

Antibiotics can reduce the volume and duration of diarrhea. Antimicrobial susceptibility testing of selected *V. cholerae* O1 isolates from the outbreak demonstrated susceptibility to tetracycline (susceptibility to this drug predicts doxycycline susceptibility), ciprofloxacin, and kanamycin; and resistance to trimethoprim-sulfamethoxazole, furazolidone, nalidixic acid, sulfisoxazole, and streptomycin. Based on these findings, CDC first choices for oral antibiotic treatment are: adults (non-pregnant), doxycycline 300 mg by mouth in one dose; pregnant women, azithromycin 1 gram in one dose; and children (all ages), azithromycin 20 mg/kg in one dose (not to exceed 1 gram), erythromycin 12.5 mg/kg (not to exceed 500 mg) 4 times a day for 3 days, or doxycycline 2-4 mg/kg in one dose (not to exceed 300 mg). Additional details about first choice options and second choice agents are available at the CDC web site.

Infection control in health care settings

Cholera may be spread by direct or indirect contact with the patient or the patient's environment because of fecal incontinence. Health care workers should observe standard plus contact precautions to prevent transmission. A single-patient room is preferred for patients. Health care personnel should wear a gown and gloves for all interactions that may involve contact with the patient or potentially contaminated areas in the patient's environment. Personal protective equipment should be donned upon room entry and discarded before exiting the patient room. Additional information is available at <http://www.cdc.gov/ncidod/dhqp/pdf/guidelines/Isolation2007.pdf>.

Laboratory testing

Cholera is confirmed through culture from stool or rectal swabs transported in Cary Blair medium at ambient to cool temperatures (not frozen). Most hospital and private laboratories can identify *V. cholerae* if notified at time of specimen submission; the test order must indicate that cholera is suspected. If this service is not available locally, or if specimens are obtained by CHD staff, the Bureau of Laboratories (BOL) in Jacksonville, Miami and Tampa can perform primary isolation. Specify "*V. cholerae*" on the BOL submission form (No. 1847) or electronic order. All *V. cholerae* isolates from Florida licensed clinical laboratories must be submitted to BOL in Jacksonville for confirmation. Notify BOL by phone prior to specimen or isolate submission.

Reporting

Cholera is a reportable disease in Florida per Rule 64D-3, Florida Administrative Code, and cases should be reported immediately upon initial suspicion by telephone 24/7 to the Manatee County Health Department (CHD) as soon as the diagnosis is suspected. Do not wait for laboratory confirmation. The Manatee County Health Department can be reached 8:00am-5:00pm by phone at (941) 748-0747 ext 1235 or after-hours and on weekends at (941) 748-0747.

For more information on cholera

More information on cholera, including recommendations for travelers, is available from the Centers for Disease Control and Prevention (CDC) at <http://www.cdc.gov/cholera>. Information regarding the outbreak in Haiti is available at <http://www.cdc.gov/haiticholera>.