Delaware Health Advisory #491: Surveillance for travelers returning with cholera

The Delaware Division of Public Health (DPH) is issuing this health advisory to all health care facilities in Delaware, to provide guidance on travelers returning with symptoms associated with cholera.

Summary

Since January 2022, a marked rise in cholera infections has occurred worldwide with large outbreaks in Haiti, Malawi, and Syria, and a total of 29 countries reporting cases. Cholera vaccine shortages have led international health organizations to temporarily suspend two-dose campaigns for outbreak response in favor of single-dose vaccinations to preserve global stockpiles.

After more than three years with no cases of cholera reported in Haiti, in October 2022, national authorities began reporting confirmed cholera cases spreading across the country. As of November 15, 2022, there have been 9,317 suspected cases and 174 deaths reported from nine of Haiti's 10 departments. Medical treatment facilities in the Port-au-Prince metropolitan area, the outbreak epicenter, are approaching capacity.

On November 18, 2022, the Centers for Disease Control and Prevention (CDC)'s Division of Foodborne, Waterborne, and Environmental Diseases issued an advisory to public health partners on conducting surveillance for travelers returning with cholera.

Background

What is cholera?

Cholera is an acute, diarrheal illness caused by infection of the intestine with the toxigenic bacterium *Vibrio cholerae* serogroup O1 or O139. An estimated 1.3 to 4 million people around the world get cholera each year and 21,000 to 143,000 people die from it. People who get cholera often have mild symptoms or no symptoms, but cholera can be severe. Approximately one in 10 people who get sick with cholera will develop severe symptoms such as watery diarrhea, vomiting, and leg cramps. In these people, rapid loss of body fluids leads to dehydration and shock. Without treatment, death can occur within hours.[1]

Travelers' health

A traveler could arrive in the United States with cholera at any time. Although no cases have been reported in the United States in 2022 among travelers returning from Haiti, eight cases have been reported among travelers returning from Pakistan, Iraq, and Bangladesh. Sustained community transmission in the United States is unlikely due to reliable water, sanitation, and hygiene (WASH) infrastructures. However, without treatment, cholera can result in death within hours. Cholera is often not considered as a possible cause of watery diarrhea among returning U.S. travelers, which can result in delayed treatment and death[2]. Travelers who consistently observe safe food, water, sanitation, and handwashing recommendations while in countries affected by cholera have virtually no risk of acquiring cholera[3].

The Advisory Committee on Immunization Practices (ACIP) recommends the use of single-dose oral cholera vaccine (CVD 103-HgR) for travelers 2 to 64 years old going to areas of toxigenic Vibrio cholerae O1 transmission. The Centers for Disease Control and Prevention (CDC) defines areas of active cholera transmission as administrative subdivisions where ≥100 cases have been reported within the past year[4].

Screening

People who develop watery diarrhea within five days after being in any country where cholera is occurring should seek medical care immediately and inform the clinician about their travel history. Physicians evaluating patients with acute onset of watery diarrhea should obtain a travel history, consider cholera in patients returning from affected regions, and obtain a stool specimen for Vibrio cholerae testing.

Laboratory diagnosis

Isolation and identification of Vibrio cholerae serogroup O1 or O139 by culture of a stool specimen remains the gold standard for the laboratory diagnosis of cholera[5].Clinical laboratory staff who detect a possible Vibrio cholerae infection using a culture-independent diagnostic test (CIDT) should quickly culture (within three days) the original specimen on appropriate media, inform the state public health laboratory staff if Vibrio cholerae is detected, and send the isolate (or CIDT-positive sample, if unable to culture) to the state public health laboratory using appropriate shipping conditions. State public health laboratories should submit Vibrio cholerae isolates to CDC as soon as possible (for more information, please refer to CDC Test Code 10119: Vibrio cholerae Identification and Subtyping).

Treatment

Physicians should treat people with watery diarrhea with appropriate rehydration therapies[6], including Ringer's lactate for severe dehydration, and oral rehydration solutions (ORS) or low-sugar oral electrolyte solutions for mild to moderate dehydration. Pharmacies and medical facilities should have an ample supply of these rehydration products. If they are not available, patients should drink broth or water. They should not use drinks with a high sugar content, such as juice, soft drinks, or sports drinks as that could worsen diarrhea.

Reporting

All cases of *Vibrio cholerae* should be reported to the DPH Office of Infectious Disease Epidemiology (OIDE). Cases can be reported by phone (302-744-4990, normal business hours; 1-888-295-5156, outside of normal business hours), fax (302-622-4149), or email (reportdisease@delaware.gov).

References

1. https://www.cdc.gov/cholera/general/index.html#one
2. Diagnosis and Treatment of Cholera in the United States: Are We Prepared? | JAMA | JAMA Network
3. Cholera - Chapter 4 - 2020 Yellow Book | Travelers' Health | CDC
4. https://wwwnc.cdc.gov/travel/news-announcements/cholera-vaccine-for-travelers

5. Diagnosis and Detection | Cholera | CDC
6. Rehydration Therapy | Treatment | Cholera | CDC