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	Section: 4.0 Diseases and Conditions	6/24
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**Case Definition** - [Vibriosis \(any species of the family Vibrionaceae, other than toxigenic \*Vibrio cholerae\* O1 or O139\) - 2017 Case Definition](#)

**Overview**

- **Agent** – *Vibrio parahaemolyticus*, *V. vulnificus*, *V. alginolyticus* and other *Vibrio* species of bacteria.
- **Reservoir** – Marine coastal environs are the natural habitat. During the cold season, organisms are found in marine silt; during the warm season, they are found free in coastal waters and in fish and shellfish.
- **Occurrence** – Sporadic cases and common-source outbreaks are reported in many parts of the world, particularly southeastern Asia and the U.S. Cases occur primarily in warm months. Large outbreaks are uncommon.
- **Risk Factors** – Those with decreased gastric acidity, liver disease, diabetes, or immunosuppression.
- **Mode of Transmission** – Ingestion of raw or inadequately cooked seafood, especially oysters or other shellfish, can cause gastroenteritis. Wound infections are usually attributable to *V. vulnificus* and can result from exposure of a preexisting wound to contaminated seawater or from punctures from handling contaminated fish or shellfish. Person-to-person transmission has not been reported.
- **Period of Communicability** – Person-to-person transmission has not been reported.
- **Incubation Period** – Typically 24 hours (range 5-92 hours) for gastroenteritis; 1-7 days for wound infections and septicemia
- **Clinical Illness** – An intestinal disorder characterized by watery diarrhea and abdominal cramps in most cases, often with nausea, vomiting, and headache. About one-quarter of patients experience a dysentery-like illness with bloody or mucoid stools. Wound infections can occur.
- **Laboratory Testing** – Isolation of *Vibrio* from stool, blood, wounds or other clinical specimen. Use of culture-independent diagnostic tests (CIDTs) to detect *Vibrio* bacteria has become increasingly common. Some tests may only detect the presence of *Vibrio* bacteria without identifying a species.
- **Treatment** – Treatment is not necessary in mild cases, but patients should drink plenty of liquids to replace fluids lost through diarrhea. Although there is no evidence that antibiotics decrease the severity or duration of illness, they are sometimes used in severe or prolonged illnesses.
- **Priority** – Prompt investigation and implementation of control measures are required.

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**Quick References / Factsheets**

- Public – [About \*Vibrio\* Infection \(CDC\)](#)
- Health Professionals - [Clinical Overview of Vibriosis \(CDC\)](#)

**Forms**


- Disease Case Report (CD-1) [PDF format](#) [Word format](#)
- [Cholera and Other \*Vibrio\* Illness Surveillance Report](#) (CDC 52.79)
- [Missouri Outbreak Report Form \(MORF\)](#)

**Notifications**

- Contact the [District Epidemiologists](#), or the Department of Health and Senior Services (MDHSS) – Bureau of Communicable Disease Control and Prevention (BCDCP), phone (573) 751-6113, or for afterhours notification contact the MDHSS - Emergency Response Center (ERC) at 800-392-0272 (24/7) immediately if an outbreak of Vibriosis is suspected.
- If a case(s) is associated with a childcare center, BCDCP or the LPHA will contact the MDHSS - Bureau of Environmental Health Services, phone (573) 751-6095, Fax (573) 526-7377 and Missouri Department of Elementary & Secondary Education (DESE) Office of Childhood/Child Care Compliance, phone (573) 751- 2450, Fax (573) 526-5345.
- If a case(s) is associated with a long-term care facility, BCDCP or the LPHA will contact the MDHSS - Section for Long Term Care Regulation, phone (573) 526-8524, Fax (573) 751-8493.
- If a case(s) is associated with a hospital, hospital-based long-term care facility, or ambulatory surgical center, BCDCP or the LPHA will contact the MDHSS - Bureau of Health Services Regulation phone (573) 751-6303, Fax (573) 526-3621

**Reporting Requirements**

- Vibriosis (non-cholera *Vibrio* species infections) is a Category 3 disease and shall be reported to the local health authority or to the Missouri Department of Health and Senior Services within three (3) calendar days of first knowledge or suspicion.
- Vibriosis reporting includes the following:
  1. For confirmed and probable cases, complete a “[Disease Case Report](#)” (CD-1) and a [Cholera and Other \*Vibrio\* Illness Surveillance Report](#) (CDC 52.79).
  2. Enter the information into WebSurv and attach the completed forms to the record.
  3. All outbreaks or suspected outbreaks must be reported as soon as possible (by phone, fax or e-mail) to the [District Epidemiologists](#).
  4. Within 90 days from the conclusion of an outbreak, submit the [Missouri Outbreak Report Form \(MORF\)](#) and/or a formal outbreak report to the District Epidemiologists.

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**Laboratory Testing**

*Vibrio* organisms can be isolated from stool of patients with gastroenteritis, from blood specimens, and from wound exudates. Because identification of the organism in stool requires special techniques, laboratory personnel should be notified when infection with *Vibrio* species is suspected.


Acceptable specimens for the Missouri State Public Health Laboratory (MSPHL) are pure inoculated culture slants and raw stool specimens. The MSPHL does not accept mixed cultures or plates. The Microbiology Unit does offer certain non-routine testing of raw specimens for *Vibrio* species. However, raw stool specimens will only be accepted from city or county health departments unless previous approval has been obtained. Enteric collection and transport kits are available by calling (573) 751-3334, 8:00 a.m. – 5:00 p.m., Monday through Friday.

**Conducting the Investigation**

1. **Verify the diagnosis.** Contact the provider and/or laboratory as needed to obtain the demographic, clinical and laboratory information needed to verify diagnosis and confirm the current case definition is met.
2. **Establish the extent of illness.** Determine the patient’s clinical symptoms and whether any household or other close contacts have similar symptoms.
3. **Identify potential sources of exposure.** Determine if the patient has traveled, has recently been in contact with or consumed seafood, or has participated in recreational water activities such as swimming or wading in the ocean/sea.
4. **Provide information regarding the prevention of vibriosis to the case.**
  - Don’t eat raw or undercooked oysters or other shellfish. Cook them before eating.
  - Wash hands with soap and water after handling raw shellfish.
  - Avoid contaminating cooked shellfish with raw shellfish and its juices.
  - Stay out of salt water or brackish water if you have a wound (including from a recent surgery, piercing, or tattoo), or cover your wound with a waterproof bandage.
  - Wash wounds and cuts thoroughly with soap and water if they have been exposed to seawater or raw seafood or its juices.

**Control Measures**

Seafood should be cooked adequately, and if not ingested immediately, should be refrigerated. Cross-contamination of cooked seafood by contact with surfaces and containers contaminated by raw seafood should be avoided. Uncooked mollusks and crustaceans should be handled with care and gloves can be worn during preparation. Abrasions suffered by ocean bathers should be rinsed with clean fresh water. All children, immunocompromised people, and people with chronic liver disease should avoid eating raw oysters or clams and all individuals should be advised of risks associated with seawater exposure if a wound is present or likely to occur.

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**Resources**

1. American Academy of Pediatrics. *Red Book: 2021-2024 Report of the Committee on Infectious Diseases*. Kimberlin DW, Barnett ED, Lynfield R, Sawyer MH, eds. 32nd ed. Itasca, IL: American Academy of Pediatric; 2021, pp 847-848.
2. American Public Health Association (2022). Cholera and Other Vibriosis. In D. Heymann (Ed.), *Control of Communicable Diseases Manual*. (21st ed., pp. 100-113).
3. Centers for Disease Control and Prevention. Office of Public Health and Data, Surveillance, and Technology (OPHDST), *National Notifiable Disease Surveillance System (NNDSS), United States 2017*. <https://ndc.services.cdc.gov/conditions/vibriosis/>. 9/23.
4. *Control of Communicable Diseases Manual*. (CCDM), American Public Health Association. 21st ed. 2022.
5. Mandell, Douglas, and Bennett’s *Principles and Practice of Infectious Diseases*. 7th ed. 2010.