

16-ID-05: VIBRIOSIS: Case Definition for Case Classification

CLINICAL CRITERIA

An infection of variable severity characterized by watery diarrhea, primary septicemia, or wound infection. Asymptomatic infections may occur, and the organism may cause extra-intestinal infection.

LABORATORY CRITERIA FOR DIAGNOSIS

- **Supportive laboratory evidence:** Detection of a species of the family *Vibrionaceae* (other than toxigenic *Vibrio cholerae* O1 or O139, which are reportable as cholera) from a clinical specimen.
- **Confirmatory laboratory evidence:** Isolation of a species of the family *Vibrionaceae* (other than toxigenic *Vibrio cholerae* O1 or O139, which are reportable as cholera) from a clinical specimen.

EPIDEMIOLOGIC LINKAGE

A clinically compatible case that is epidemiologically linked to a case that meets the supportive or confirmatory laboratory criteria for diagnosis.

CRITERIA TO DISTINGUISH A NEW CASE FROM AN EXISTING CASE

- A case should not be counted as a new case if laboratory results were reported within 30 days of a previously reported infection in the same individual.
- When two or more different species of the family *Vibrionaceae* are identified in one or more specimens from the same individual, each should be reported as a separate case.

CASE CLASSIFICATION

- **Confirmed**
 - A case that meets the confirmed laboratory criteria for diagnosis.
- **Probable**
 - A case that meets the supportive laboratory criteria for diagnosis, OR
 - A clinically compatible case that is epidemiologically linked to a case that meets the supportive or confirmatory laboratory criteria for diagnosis.

COMMENT

The use of CIDs as stand-alone tests for the direct detection of *Vibrio* in stool is increasing. Specific performance characteristics such as sensitivity, specificity, and positive predictive value of these assays likely depend on the manufacturer and are currently unknown. It is therefore useful to collect information on the type(s) of testing performed for reported vibriosis cases. When a specimen is positive using a CIDT it is also helpful to collect information on all culture results for the specimen, even if those results are negative.

Culture confirmation of CIDT positive specimens is ideal, although it might not be practical in all instances. State and local public health agencies should make efforts to encourage reflexive culturing by clinical laboratories that adopt culture-independent methods, should facilitate submission of isolates/clinical material to state public health laboratories, and should be prepared to perform reflexive culture when not performed at the clinical laboratory as isolates are currently necessary for serogrouping and cholera toxin testing as well as biotype and antimicrobial susceptibility testing.

CDPH IDB COMMENTS

1. *Vibrio* species are not covered under the 2016 changes to Title 17, Section 2505; there is no requirement for culture or isolate submission to a public health laboratory. However, any suspected *V. cholera* isolate should be forwarded to a public health laboratory for serogrouping and cholera toxin testing.
2. Specimens that are CIDT positive for *Vibrio* but culture negative or no culture was attempted are classified as Probable cases. (Note: a negative culture result does not negate the CIDT result).
 - For specimens that are CIDT positive but culture negative:
 - Currently, there is not a specific area to enter in culture negative results in the Laboratory Information tab in CalREDIE (unless reported through ELR) or on the Cholera and Other *Vibrio* Illness Case Report (COVIS/CDPH 8587) form.
 - On the *Vibrio* Infections form in CalREDIE or the COVIS/CDPH 8587 form:
 1. In the “Type of Test” field in the Laboratory Information section, check the box for the appropriate type of test.
 2. In the Notes/Remarks section, enter that this case was CIDT positive only and culture negative.
 - Close the case as Probable.
 - For specimens that are CIDT positive but culture was not attempted:
 - On the *Vibrio* Infections form in CalREDIE or the Cholera and Other *Vibrio* Illness Case Report form (CDPH 8587):
 1. In the “Type of Test” field in the Laboratory Information section, check the box for the appropriate type of test.
 2. In the Notes/Remarks section, enter that this case was CIDT positive only and culture was not attempted.
 - Close the case as Probable.
3. Per the new CSTE surveillance case definition, a vibriosis case should not be counted as a new case if the same *Vibrio* infection was already reported in an individual within the previous 30 days. After 30 days, any detection of *Vibrio* species would be counted as a new case, regardless of its serotype and/or molecular strain typing. CDPH clarifies this further as 30 days from the collection date of the last specimen that yielded the earlier same *Vibrio* strain.

4. When two or more different *Vibrio* species are identified from one or more specimens from the same individual, each should be reported as a separate case. This is true regardless of the timing of the specimen collection. If the incubation period is the same for each species collected, risk factors need to be collected and entered into CalREDIE or CDPH 8587 only once.

For more information visit the [U.S. Centers for Disease Control and Prevention vibriosis webpage](https://wwwn.cdc.gov/nndss/conditions/vibriosis/case-definition/2017/) (https://wwwn.cdc.gov/nndss/conditions/vibriosis/case-definition/2017/).