16-ID-03: NON-TYPHOIDAL SALMONELLOSIS:
Case Definition for Case Classification

CLINICAL CRITERIA
An illness of variable severity commonly manifested by diarrhea, abdominal pain, nausea, and sometimes vomiting. Asymptomatic infections may occur and the organism may cause extra-intestinal infections.

LABORATORY CRITERIA
- **Supportive laboratory evidence**: Detection of *Salmonella* spp. in a clinical specimen using a CIDT.
- **Confirmatory laboratory evidence**: Isolation of *Salmonella* spp. from a clinical specimen.

EPIDEMIOLOGIC LINKAGE
- **Probable**: 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 365 days of a previously reported infection in the same individual.
- When two or more different serotypes are identified from 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 CIDTs as stand-alone tests for the direct detection of *Salmonella* 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 salmonellosis 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 molecular typing (PFGE and whole genome sequencing) that are essential for outbreak detection.

Position statement classifies cases as confirmed (a case that meets the confirmed laboratory criteria) AND 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). "Suspected" has been removed.

**CDPH IDB COMMENTS**

1. Recent changes to [Title 17, Section 2505](https://www.cdph.ca.gov/Programs/CID/DCDC/CDPH%20Document%20Library/LabReportableDiseases.pdf) specify that the clinical laboratory must attempt to obtain a bacterial culture for CIDT positives for certain pathogens, including *Salmonella*. Therefore, salmonellosis cases are to be confirmed via culture and their isolates submitted to a public health laboratory that is able to perform serotyping and molecular strain typing.

2. Currently, there is not a specific area to enter CIDT results in the Laboratory Information section in CalREDIE (unless reported through ELR) or on the Salmonellosis Case Report Form (CDPH 8640).

3. Specimens that are CIDT positive for *Salmonella* 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:
     - In the Notes/Remarks section of CalREDIE or CDPH 8640, 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:
     - In the Notes/Remarks section of CalREDIE or CDPH 8640, enter that this case was CIDT positive only and culture was not attempted.
     - Close the case as Probable.
     - Remind the submitting laboratory that they are now required to attempt culture.

4. Per the new CSTE surveillance case definition, a salmonellosis case should not be counted as a new case if the same *Salmonella* infection was already reported for the patient within the previous 365 days. After 365 days, any detection of Salmonella would be counted as a new case regardless of its serotype or
molecular strain typing. CDPH clarifies this as 365 days from the collection date of the last specimen that yielded the earlier same *Salmonella* strain.

5. When two or more different *Salmonella* serotypes 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 serotype collected, risk factors need to be collected and entered into CalREDIE or CDPH 8640 only once.

For more information visit the U.S. Centers for Disease Control and Prevention *salmonellosis* webpage (http://www.cdc.gov/nndss/conditions/salmonellosis/case-definition/2017/)