



DATE: February 6, 2018

TO: U.S. State and Territorial Public Health Laboratory Directors

FROM: The Enteric Diseases Laboratory Branch (EDLB), Centers for Disease Control and Prevention

SUBJECT: Submission of enteric disease-associated bacterial isolates and specimens to the Enteric Diseases Laboratory Branch

I. Background/scope

This memorandum is intended to provide guidance to state and territorial laboratories for submission of routine and outbreak bacterial isolates and associated specimens to CDC's Enteric Diseases Laboratory Branch (EDLB). This document and the accompanying Table 1 version 5 describe the bacterial isolates and specimens that can/should be sent, the circumstances under which they should be sent, where and to whom isolates/specimens should be sent, and the types of testing performed on isolates/specimens that come to EDLB. These materials are effective February 6, 2018 and replace the memorandum and table dated May 4, 2015. Updates to the May 2015 documents are highlighted in peach. These materials do not describe submission of isolates and specimens for special short-term studies. Questions about isolate and specimen submission for special studies can be directed to the appropriate contact person for that organism (Table 1 version 5). Additional communication tools are also provided in Section III.

II. Submission of bacterial isolates and other specimens to EDLB

Bacteria and specimens can be sent to the CDC either at the discretion of the submitting laboratory for reference testing or at the request of CDC as described in Table 1 version 5. Isolates/specimens are sent to EDLB for 3 main services: characterization for outbreak detection, reference/surveillance laboratory testing, and antimicrobial resistance surveillance through the National Antimicrobial Resistance Monitoring System (NARMS). Testing services provided include: isolation of enteric pathogens from clinical specimens, identification, serotyping, subtyping (pulsed-field gel electrophoresis (PFGE), multilocus variable tandem repeat analysis (MLVA), whole genome sequencing (WGS), etc.), antimicrobial susceptibility testing, and toxin testing.

EDLB also engages in serologic assay validation for various food- and waterborne pathogens. For serum collection and submission in the context of food- or waterborne events, please refer to the guidance for "Serum" in Table 1 version 5.

Most specimens can be sent to CDC in a normal timely manner. **In some cases, (*Vibrio cholerae* isolates and associated specimens, and primary specimens suspected or confirmed to be positive for *Clostridium botulinum* and other neurotoxin-producing *Clostridial* species) isolates or specimens should be sent to CDC as soon as possible. This is also the case for *Salmonella* Typhi isolates when an outbreak is suspected, and it is very helpful for the submitting laboratory to email the CDC laboratory points of contact. For laboratories that have not implemented WGS, *Listeria monocytogenes* isolates should be sent as soon as possible. Laboratories that are performing WGS should submit *L. monocytogenes* at least quarterly. Fecal specimens from outbreaks of unknown etiology should also be submitted as soon as they are obtained.**

Table 1 version 5 indicates the number of isolates requested and the timing/frequency of submission. These criteria will vary depending on the organism and the service for which isolates/specimens are being submitted. The name of a CDC contact person should be included with shipments as shown in Table 1 version 5 so that isolates/specimens are routed to the appropriate laboratory in a timely fashion. Routine surveillance isolates submitted to NARMS should be accompanied by a NARMS logsheet. All other isolates/specimens (including outbreak isolates submitted for antimicrobial susceptibility testing) should be accompanied by a CDC form 50.34 (specimen submission form). Isolates/specimens submitted for most testing need to be accompanied by separate 50.34 forms for each isolate/specimen or, if more than 10 isolates/specimens will be shipped, please notify the CDC laboratory contact in case a Global File Accessioning Template (GFAT) can be used instead of many individual forms 50.34. Form 50.34 should be as complete as possible. It is particularly important that the following form 50.34 fields be filled in: State Public Health Laboratory Address, State Public Health Laboratory Specimen ID Number and or Patient ID Number, Birthdate, Sex, Test Order Requested, Suspected Agent, Specimen Collected Date, and Specimen Source. In addition, we ask that PulseNet Cluster Codes be included in the Previous Laboratory Results section or the outbreak text field of the Epidemiological Data section on form 50.34 for any isolates that have been typed using PulseNet protocols. If the submitting laboratory assigns multiple identification numbers for strains, the PulseNet identification number needs to be always included on the specimen submission form either on the Specimen ID or the Alternative Specimen ID field. All subtyping requests should include the specific test (PFGE, WGS, AST, etc.) in the Previous Laboratory Results section.

III. Communication tools

Public health officials (at the state and territorial public health laboratories and at CDC) can communicate about pending and current isolate requests via email (entericbacteria@cdc.gov), a phone call to the Enteric Diseases Laboratory Branch at 404-639-3334, or by contacting specific personnel listed in Table 1 version 5.