



# Specimen Submission Requirements for Clinical Microbiology Laboratories

Effective November 14, 2015, the CDPHE Communicable Disease Branch **requires** clinical microbiology laboratories send certain culture **isolates and/or clinical material\*** to the CDPHE laboratory in addition to reporting positive lab results. The CDPHE laboratory performs additional testing [serotyping, serogrouping, pulsed-field gel electrophoresis (PFGE)] on submitted isolates to identify outbreaks due to common strains or subtypes and to better understand pathogens that adversely impact the public’s health. There is no fee when submitting isolates/clinical material to the CDPHE laboratory per this policy.

All clinical microbiology laboratories in Colorado must submit the following suspected or confirmed isolates or clinical material to the CDPHE laboratory:

- *Bacillus anthracis*
- *Brucella* species
- *Corynebacterium diphtheriae*
- *Cyclospora cayetanensis*
- *Escherichia coli* O157 and Shiga toxin-producing *E. coli*\*
- *Francisella tularensis*
- *Haemophilus influenzae* (invasive body site<sup>a</sup>)
- *Listeria monocytogenes* (from each positive specimen)
- *Neisseria meningitidis* (invasive body site<sup>a</sup>)
- *Salmonella* species (including typhi and non-typhi species)\*
- *Shigella* species\*
- Vancomycin-resistant (and intermediate) *Staphylococcus aureus*
- *Vibrio cholerae*\*
- *Vibrio non-cholerae*\*
- Viral hemorrhagic fever
- *Yersinia pestis*

\*If culture-independent methods (i.e., PCR, EIA, other rapid tests, etc.) are used to detect Shiga toxin, suspected *E. coli* O157, *Salmonella*, *Shigella*, or *Vibrio*, please forward inoculated broth or stool specimen/swab to the CDPHE lab.

In addition to the above, CDPHE also requires clinical laboratories located in the 7-county Denver metropolitan area (Emerging Infections Program [EIP]: Adams, Arapahoe, Boulder, Broomfield, Denver, Douglas, and Jefferson counties) submit isolates of the following bacteria:

- Group A streptococci (GAS) from invasive body sites<sup>a,b</sup>
- Group B streptococci (GBS) from invasive body sites<sup>a,c</sup>
- *Streptococcus pneumoniae* from invasive body sites<sup>a</sup>
- *Yersinia non-pestis* from any body site
- *Bordetella pertussis* from any respiratory specimen - specific labs are requested to submit inoculated Regan-Lowe media from PCR-positive specimens

Invasive Body Sites <sup>a</sup> (including, but not limited to):	
• Blood	• Joint/synovial fluid
• CSF	• Internal body site (brain, heart, lymph node, liver, kidney, pancreas, ovary, spleen, or vitreous fluid)
• Bone	• Vascular tissue (aorta, vena cava, etc.)
• Pleural fluid	• Muscle tissue (GAS only)
• Peritoneal fluid	
• Pericardial fluid	

**Isolate/Clinical Material Submission:** For questions about isolate submission or shipping instructions, please call: CDPHE Public Health Microbiology Laboratory -- 303-692-3480  
To order supplies for shipping isolates/clinical material, please visit:  
<https://www.colorado.gov/pacific/cdphe/order-lab> and click on ‘Public health testing supply order form.’

## Disease Reporting: Submission of isolates or clinical material does not constitute reporting

To report a case, please call:

Integrated Disease Reporting Program during business hours: 303-692-2700 or 1-800-866-2759

To report 24-hour reportable conditions on evenings, weekends, or holidays: 303-370-9395

A list of conditions reportable by all laboratories is available by calling 303-692-2700, or online at <https://www.colorado.gov/pacific/cdphe/report-a-disease>.

<sup>a</sup> For clarification on whether an isolate meets the definition for ‘invasive body site’, please contact one of the EIP epidemiologists (Nisha Alden, Ben White, or Claire Reisenauer) at 303-692-2700 for guidance.

<sup>b</sup> If GAS is isolated from a wound or surgical tissue/specimen and is accompanied by necrotizing fasciitis or Streptococcal Toxic Shock Syndrome, it should be considered a case for EIP, with submission of the isolate and reporting of the case.

<sup>c</sup> If GBS or *Haemophilus influenzae* is isolated from placenta and/or amniotic fluid and a fetal death occurs, it may be considered a maternal case for EIP, and the isolate is requested. However, routine submission of all GBS isolates from placental/amniotic fluid specimens is not required; should such isolates be submitted to the state lab, EIP epidemiologists will review the patient’s medical chart to ascertain whether the patient meets the EIP case definition.

Additional notes:

- (1) *Campylobacter*, *Cryptosporidium parvum*, and *Clostridium difficile*, need to be reported on monthly line lists (submitted to EIP epidemiologist) but isolates do not need to be submitted, **unless an agreement is already in place to send them.**
- (2) Selected isolates for carbapenem-resistant Enterobacteriaceae should be submitted according to the instructions, “Carbapenem-resistant organisms isolate submission instructions,” found here: <https://www.colorado.gov/pacific/cdphe/report-a-disease> Please note that there are two versions of instructions, one for laboratories located in the EIP region (laboratories located in the 5-county Denver metropolitan area (Adams, Arapahoe, Denver, Douglas, and Jefferson counties), and one for laboratories located outside of the EIP region. Isolates for carbapenem-resistant *Pseudomonas aeruginosa* and carbapenem-resistant *Acinetobacter baumannii* do not need to be submitted at this time.
- (3) CDPHE requests that isolates/specimens of any organism relating to an outbreak be submitted to the state laboratory to assist in the investigation. In this situation, CDPHE epidemiologists will contact the reporting laboratory.
- (4) Influenza specimens are requested throughout the influenza season. Guidance may change throughout the season and is updated via Health Alert Network notices as needed.