



Guidance for Clinical Microbiology Laboratories on Isolate Submission

The CDPHE Communicable Disease Branch requests 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.

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

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

*If non-culture based 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 to the CDPHE lab.

In addition to the above, CDPHE also requests 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^{a,b}
- Group B streptococci (GBS) from invasive body sites^{a,c}
- *Streptococcus pneumoniae* from invasive body sites^a
- *Yersinia non-pestis* from any body site
- *Bordetella pertussis* from any respiratory specimen (labs may also provide inoculated Regan-Lowe media from PCR-positive specimens)

Invasive Body Sites ^a (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: 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>.

^a For clarification on whether an isolate meets the definition for ‘invasive body site’, please contact one of the EIP epidemiologists (Deborah, Ben, or Claire) at 303-692-2700 for guidance.

^b 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.

^c If GBS 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*, *Clostridium difficile*, and MRSA 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) Isolates for carbapenem-resistant *Enterobacteriaceae* and carbapenem-resistant *Acinetobacter* do not need to be submitted, **unless an agreement is already in place to send them.**
- (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.