CLINICAL LABORATORY
SUSPECTED BIOTERRORISM (BT) EVENT MANAGEMENT GUIDELINE
Washington State Clinical Laboratory Advisory Council
Originally published: April 2003

Notification from public health authorities, infection control, local media, etc. of potential bioterrorist threat

Covert Event

- LRN Sentinel Laboratory*
  - Unusual number of clinical specimens received from patients with similar symptoms
  - Preliminary laboratory findings suggestive of a BT agent (see back page)
  - Receipt of clinical specimen to rule out (R/O) BT agents
  - Unusual isolates from more than one patient

Alert & inform as appropriate:
> Lab Director
> Supervisor
> Infection Control
> Medical Director

Inform clinicians of pertinent laboratory results and status of confirmatory testing

Inform local health jurisdiction (LHJ) officials

Preserve and secure specimen/sample/all culture plates
Wait for instructions from LHJ for follow-up steps

Overt Event

Clinical laboratory notified of increased level of suspicion

Notification from public health authorities, infection control, local media, etc. of potential bioterrorist threat

Local Health Jurisdictions will:
> Inform and involve Washington State Department of Health (DOH) Epidemiology staff and the DOH Public Health Laboratories to determine where suspect samples are to be sent for further analysis
> Advise LRN Sentinel Laboratory on which LRN Reference** laboratory to send the specimen/sample
  - how to send the sample and special packing instructions
  - include initial laboratory work-up

Customize the following telephone numbers for YOUR laboratory

** **

<table>
<thead>
<tr>
<th>Role</th>
<th>Telephone Number</th>
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<tbody>
<tr>
<td>Laboratory Director</td>
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<tr>
<td>Laboratory Supervisor</td>
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<td>Lead Technologist</td>
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<td>Infection Control</td>
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<td>Local Health Jurisdiction</td>
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* LRN Sentinel Laboratory: Laboratories that perform blood and/or CSF cultures to RULE OUT a BT agent.
** LRN Reference Laboratory: Laboratories specifically authorized by the Centers for Disease Control and Prevention to perform testing to RULE IN the BT agent.

ENVIRONMENTAL SAMPLES: DO NOT ACCEPT any type of non-clinical specimen such as powders, other suspicious substances, or packages.
Contact your local health jurisdiction. REFER all phone calls from people regarding environmental specimens to local law enforcement or to your local health jurisdiction.

PUB #681-NonDOH (March 2018)
<table>
<thead>
<tr>
<th>Agent</th>
<th>Culture Methods</th>
<th>Recovery Time</th>
<th>Colony Morphology</th>
<th>Gram Stain Morphology</th>
<th>Presumptive ID</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Bacillus anthracis</em></td>
<td>From: vesicle, sputum, CSF, stool, blood, tissue</td>
<td>8-24 hours</td>
<td>BAP/CHOC: Round w/regular edges, flat to slightly convex w/ground glass appearance, often w/comma shaped projections from colony edge which peaks when touched, non-hemolytic MAC: No growth</td>
<td>Large gram + rods often in short chains. Encapsulated w/sub-terminal spores (no swelling)</td>
<td>1)Ground glass appearance, no hemolysis on BAP; 2)No growth on MAC; 3)Large Gram + rods; 4) Catalase + 5)Non-motile</td>
<td>Refer to laboratory designated by the local health jurisdiction</td>
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<tr>
<td><em>Francisella tularensis</em></td>
<td>From: blood, sputum, tissue, lymph node, or lesion aspirate</td>
<td>24-48 hrs, hold up to 10 days</td>
<td>BAP: Scant to no growth, may grow at first, but fails to grow with subsequent passage. CHOC/CHAB: Grey-white opaque usually too small to be seen at 24 hrs. At 48 hrs. usually 1-2 mm, white to grey to bluish grey, opaque, flat entire edge, smooth and shiny; MAC: No growth</td>
<td>Tiny poorly counterstaining Gram - coccobacillus</td>
<td>1)Scant to no growth on BAP after 48 hrs. 1-2 mm grey white colonies on CHOC after 48 hrs. 2) No growth on MAC. 3) Tiny pleomorphic faintly staining Gram – coccobacillus. 4) Oxidase – 5) Catalase - or weakly + 6)Beta-lactamase + 7) no satellite growth.</td>
<td>Refer to Laboratory designated by the local health jurisdiction</td>
</tr>
<tr>
<td><em>Yersinia pestis</em></td>
<td>From: blood, sputum, tissue, lymph node aspirate</td>
<td>24-48 hrs, hold up to 7 days</td>
<td>BAP/CHOC: Grey-white, translucent colonies usually too small to see at 24 hrs. After 48 hrs, 1-2 mm, grey-white to slightly yellow and opaque. At 48-72 hrs, colonies have raised fried-egg or hammered copper appearance. Little to no hemolysis. MAC: Small non-lactose fermenting colonies.</td>
<td>Gram - rods mostly in single cells or pairs and in short chains in liquid media.</td>
<td>1)Pinpoint colonies at 24 hrs on SBA 2)Non-lactose fermenter may not be visible on MAC at 24 hrs 3)Gram – rods 4)Oxidase – 5)Indole – 6)Urease – 7) Catalase + 8) Motility – at 25°C</td>
<td>Refer to Laboratory designated by the local health jurisdiction</td>
</tr>
<tr>
<td><em>Brucella sp.</em></td>
<td>From: blood, joint or abdominal fluid, tissue (spleen, liver abcesses), bone marrow</td>
<td>24-48 hrs, hold up to 7 days</td>
<td>BAP/CHOC: Pinpoint colonies at 24 hrs; easily visible as white non-hemolytic colonies at 48 hrs. MAC: No growth.</td>
<td>Tiny gram – coccobacillus that stain faintly</td>
<td>1)Pinpoint colonies at 24 hrs easily visible at 48 hrs on BAP 2)No growth on MAC 3) Gram – coccobacillus that stain faintly 4) Oxidase + 5)Catalase + 6)Urease +</td>
<td>Refer to Laboratory designated by the local health jurisdiction</td>
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</table>
| *Burkholderia pseudomallei* & *mallei* | From: blood, sputum, tissue (biopsies, abscess aspirates), bone marrow, wound swabs, urine | 24 hrs, hold up to 5 days | *B. mallei*  
BAP/CHOC: Smooth grey, translucent colonies in 48 hrs without pigment. MAC: Colonies may or may not grow. If present, they will be pinpoint at 48 hrs.  
*B. pseudomallei*  
BAP/CHOC: Small, smooth creamy colonies in 24-28 hrs. Colonies gradually change to dry wrinkled colonies. Non-hemolytic MAC: Good growth | Gram – coccobacillus or small rods                                                              | 1)BAP: poor growth at 48 hrs, better growth of grey, translucent colonies w/out pigment or hemolysis at 48 hrs. 2)(Gram – coccobacillus or small rods 3)Indole – 4)Catalase + | Refer to Laboratory designated by the local health jurisdiction                                |
| *Clostridium botulinum*       | From: Feces, tissue, wound exudates, gastric contents, serum, food                | Contact County Health Department. All testing will be conducted at the State Public Health Laboratory | Testing performed at the State Public Health Laboratory | Testing performed at the State Public Health Laboratory | Testing performed at the State Public Health Laboratory | Refer to Laboratory designated by the local health jurisdiction                                |

References:

Sentinel Level Clinical Laboratory Protocols for Suspected Biological Threat Agents and Emerging Infectious Diseases 2013.; American Society for Microbiology