LEGACY HEALTH | LEGACY LABORATORY SERVICES

Potential Agents of Bioterrorism
Specimen Collection

For questions: Microbiologists 503-413-4084
Claudia Atherton, MT(ASCP)SM 503-413-2828

IMPORTANT: Follow the Infection Control Precautions described in Infection Control Guidelines for Potential Agents of Bioterrorism **BEFORE** collecting specimens.

ANTHRAX (*Bacillus anthracis*)	Possible *B. anthracis* exposure in an asymptomatic patient	Anthrax-inhalational	Anthrax-cutaneous vesicular stage	Anthrax-cutaneous eschar stage	Anthrax-GI
Blood cultures Two separate sets from different sites. One set is 2 bottles of 10 mL each.	No	√	√	√	√
Lavender-top tube (EDTA) Inpatients only for direct Gram stain	No	√	√	√	√
Red-top tube Save for other studies	No	√	√	√	√
Sputum	No	√	No	No	No
Pleural Fluid (If present)	No	√	No	No	No
CSF (If meningeal signs present)	No	√	No	No	No
Cutaneous Lesions 2 swabs and 2 punch biopsies See notes below.	No	No	See notes below.	See notes below.	No
Stool (Not in transport medium)	No	No	No	No	√
Anterior Nares Swab	No	No	No	No	No
ORDER COMMENT	Not applicable	R/O Anthrax	R/O Anthrax	R/O Anthrax	R/O Anthrax

Notes regarding Cutaneous Lesions:

1. Swabs:
   a. Vesicular Lesions: Soak 2 swabs in previously unopened vesicle fluid and send in a Culturette.
   b. Eschar Lesions: Rotate 2 swabs beneath edge of eschar without removing eschar and send in a Culturette.
2. Punch biopsy:
   a. Send one in a sterile container for culture.
   b. Send one in 10% neutral buffered formalin for histopathology and immunohistochemical stain.

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PLAGUE (*Yersina pestis*)	Possible *Y. pestis* exposure in an asymptomatic patient	Plague-pneumonic or bubonic
Blood cultures Two separate sets from different sites. One set is 2 bottles of 10 mL each bottle	No	√
Red-top tube (for serology)	No	√
Sputum	No	√
CSF (If meningeal signs present)	No	√
Bubo aspirate	No	√
Skin scraping of lesions	No	√
ORDER COMMENT	Not applicable	R/O Plague

BOTULISM *(Clostridium botulinum)*	Possible *C. botulinum* exposure in an asymptomatic patient	Botulism-Symptomatic
Red-top tube (for serology)	No	3 - 10 cc tubes from adults √ (10 cc blood/tube)
Stool (Not in transport medium)	No	√ >25 g stool
Gastric aspirate	No	√
CSF (If meningeal signs present)	No	Not recommended - CSF will be normal
ORDER COMMENT	Not Applicable	R/O Botulism

TULAREMIA *(Francisella tularensis)*	Possible *F. tularensis* exposure in an asymptomatic patient	Tularemia
Blood cultures Two separate sets from different sites. One set is 2 bottles of 10 mL each bottle.	No	√
Red-top tube (for serology)	No	√
Sputum	No	√
CSF (If meningeal signs present)	No	√
Lymph node biopsy or aspirate (Send in sterile container)	No	√
ORDER COMMENT	Not applicable	R/O Tularemia

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SMALLPOX (Smallpox/Variola Virus)	Possible Smallpox Virus exposure in an asymptomatic patient	Smallpox
Skin scrapings of lesions: Use blunt edge of a scalpel to open previously unopened vesicular lesion • Harvest fluid with a cotton swab • Scabs can be removed by forceps	No	Swabs and scabs should be placed in a sterile tube, sealed with tape. Double-bag in Biohazard bag. Hand carry to the Microbiology Lab (do not send via pneumatic tube).
ID CONSULT	No	√
ORDER COMMENT	Not applicable	R/O Smallpox

VIRAL HEMORRHAGIC SYNDROME	Possible Viral Hemorrhagic Syndrome exposure in an asymptomatic patient	Viral Hemorrhagic Fever
Blood cultures Two separate sets from different sites. One set is 2 bottles of 10 mL each bottle.	No	√
Green-top (heparin) tube (for culture)	No	√
Red-top tube (for serology)	No	√
Stool (Not in transport medium)	No	√
Nasopharyngeal or throat swab in viral transport medium	No	√
Urine	No	√
ID CONSULT	No	√
ORDER COMMENT	Not applicable	R/O Viral Hemorrhagic Fever

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INFECTION CONTROL GUIDELINES FOR POTENTIAL AGENTS OF BIOTERRORISM **IMPORTANT PHONE NUMBERS:** **OSPHL 24/7 503-693-4100** **OR LRN 503-693-4123** **CDC Info Hotline 888-246-2675** **OR Emergency Preparedness Officer** **971-246-1789 or 503-938-6790** **WA Public Health Emergency Line** **800-556-8744**	**Anthrax**	**Brucellosis**	**Cholera**	**Glanders**	**Bubonic Plague**	**Pneumonic Plague**	**Tualremia**	**Q Fever**	**Smallpox**	**Venez. Equine Encephalitis**	**Viral Encephalitis**	**Viral Hemmorrhagic Fever**	**Botulism**	**Ricin**	**T-2 Mycotoxins**	**Staph Enterotoxin**
Isolation Precaution	**Bacterial Agents**								**Viruses**				**Biological Toxins**			
Standard Precautions for all aspects of patient care	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Contact Precautions		x							x			x				
Airborne Precautions				x					x							
Use of **N95** mask by **all** individuals entering the room									x							
Droplet Precautions						x				x						
Wash hands with antimicrobial soap		x	x						x			x				
Patient Placement																
No restrictions	x						x						x	x	x	x
Cohort "like" patients when private room unavailable			x		x	x		x			x					
Private room		x	x	x	x	x			x	x		x				
Negative pressure									x							
Door closed at all times				x					x							
Patient Transport																
No restrictions	x						x	x			x		x	x	x	x
Limit movement to essential medical purposes only		x	x	x	x	x			x	x		x				
Place mask on patient to minimize dispersal of droplets				x		x			x	x						
Cleaning, Disinfection of Equipment																
Routine terminal cleaning of room with hospital-approved disinfectant upon discharge			x	x			x	x	x	x	x		x	x	x	x
Disinfect surfaces with bleach/water sol. 1:9 (10% sol.)	x	x			x	x						x				
Dedicated equipment disinfected prior to leaving room		x							x			x				
Linen management as with all other patients	x	x	x	x	x	x	x	x		x	x	x	x	x	x	x
Routine medical waste handled per internal policy	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Discharge Management																
No special discharge instruction necessary	x		x	x			x	x		x	x		x	x	x	x
Home care providers should be taught principles of **Standard Precautions**	x	x			x	x						x				
Patient not discharged from hospital until determined to be no longer infectious						x			x			x				
Patient generally not discharged until 72 hours of antibiotics completed						x										
Post-mortem Care																
Follow principles of Standard Precautions	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Droplet Precautions						x										
Airborne & Contact Precautions and Negative pressure									x							
Use of **N95** mask by **all** individuals									x							
Negative pressure									x							
Contact Precautions									x			x				
Routine terminal cleaning of room with hospital-approved disinfectant upon autopsy		x	x	x			x	x	x	x	x		x	x	x	x
Disinfect surfaces with bleach/water sol. 1:9 (10% sol.)	x				x	x						x				

Standard Precautions prevent direct contact with all body fluids (including blood), secretions, excretions, non-intact skin (including rashes) and mucous membranes. Standard precautions routinely practiced by healthcare providers include use of personal protective equipment.

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