Infectious Disease

Client Services Manual

Utah Public Health Laboratory

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Webpage: http://health.utah.gov/lab

GENERAL INSTRUCTIONS

CONTACT US:

Utah Public Health Laboratory
4431 S. 2700 W.
Taylorsville, Utah 84129
Phone: 801-965-2400
Fax: 801-965-2551
Webpage: http://health.utah.gov/lab

KEY PERSONNEL

Administrative
- Robyn Atkinson-Dunn, Ph.D – Laboratory Director
- Brent Curtis – Assistant Laboratory Director

Infectious Disease
- J. Chad Campbell, M(ASCP) – Program Manager: Bacteriology, Food Bacteriology, Mycobacteriology
- Jana Coombs, RM(NRCM), SV, M(ASCP) – Program Manager: Molecular Laboratory, Bioterrorism and Emerging Infectious Diseases
- Kirk W. Benge, MPH – Program Manager: Virology and Immunology

Technical Services
- Colleen Robley – Program Manager: Specimen Processing
- Kyle Spackman – Program Manager: Technical Services

REPORTING:

We request your help in supplying your correct customer ID code. Without this code, your test reports may be delayed or we may not know where to correctly send your results.

REQUISITIONS:

Infectious Disease Test Request Form

Rabies Request Form

COSC Specimen Submittal Form

All information should be provided. Incomplete requisition forms may delay processing. In some cases our laboratory may not be able to process a sample without the requested information.

SPECIMEN LABELING: See individual requirements under specific test.
***Note: Specimen containers from the State of Utah Public Health Lab have an "outdate" printed on the label. Do not collect any sample in an outdated container. Call Technical Services at 801-965-2533 for a new container. We do not supply blood collection tubes.

Table of Contents

Table of Contents

Bacterial Pathogens in Food 5
Organism Serotyping 6
Escherichia coli 7
Neisseria gonorrhoeae, Neisseria meningitidiis 8
Stool for Bacterial Pathogens 9
Bacillus anthracis (Anthrax) 10
Brucella species (Brucellosis) 11
Burkholderia mallei and Burkholderia pseudomallei 12
Clostridium botulinum 13
Coxiella burnetii (Q-fever) 14
Environmental Sample Multi-Agent Screen 15
Francisella tularensis (Tularemia) 16
Middle Eastern Respiratory Virus Syndrome Coronavirus (MERS-CoV) 17
Orthopox viruses 18
Ricin toxin 19
Variola virus (Smallpox)- Referral Test 20
Yersinia pestis (Plague) 21
Hantavirus 22
Hepatitis B and Hepatitis C viruses 23
Human immunodeficiency virus 24
Human immunodeficiency virus 25
Syphilis 26
Syphilis 27
Syphilis 28
Tuberculosis 29
Bordetella pertussis PCR Referral Test 30
Norovirus PCR Referral Testing 31
West Nile Virus (Human) IgM 32
West Nile Virus, St. Louise Encephalitis Virus, or Western Equine Encephalitis Virus PCR 33
Acid-fast Bacillus stain 34
Acid-fast bacilli (AB) culture 35

Mycobacterium tuberculosis complex ..... **Error! Bookmark not defined.**
Chlamydia trachomatis and Neiserria gonorrhea 38
Human Papillomavirus (HPV) 39
Trichomonas vaginalis 40
General viral culture 41
Influenza virus PCR 42
Herpes simplex virus and Varicella zoster virus 43
Rabies 44
Virus Identification – Respiratory Panel 45
General Virus Culture 46
Appendix A: 47
Appendix A:Bioterrorism Specimen Collection and Transport Guidelines 47
Bacillus anthracis 47
Brucella species 48
Burkholderia mallei and Burkholderia pseudomallei 48
Clostridium botulinum 48
Coxiella burnetii 51
Francisella tularensis 51
Variola virus 52
Yersinia pestis 52
Appendix B: Test List (alphabetical by organism) 53
Appendix C: Test Request Forms 55

Bacteriology (Food Testing)

Bacterial Pathogens in Food

TEST	Bacteria in foods that may be pathogenic for humans (outbreaks only)
METHOD	Culture
AVAILABLE	Scheduled through UDOH: (801) 801-965-2400
PATIENT PREP	N/A
SPECIMEN	Sample of suspect foods (call Bacteriology section (801) 965-2598 for details)
COLLECT IN	Clean, dry container
PROCESSING	Keep food at 2 to 8 degrees C, unless frozen (if frozen then keep it frozen)
TRANSPORT	Transport at refrigerator or freezer temperature as appropriate
TIME CRITICAL	Transport immediately
LABEL	Client name, type of food, date collected, and bacteria suspected
REQUISITION	Infectious Disease Test Request Form
TEST COMPLETE	Variable, depends on organism
RESULTS	Presence or absence
REPORTED	Mail, e-mail, or fax, as established with provider
NOTE	Food of the same batch or lot number as the suspect item must be submitted
CONTACT	Bacteriology Section (801) 965-2400

Bacteriology

Organism Identification and Serotyping

TEST	*Aeromonas, Pleisiomonas, Vibrio* *E. coli* (shiga-toxin producing strains only) *Haemophilus influenza* *Legionella pneumophila* *Plesiomonas* *Salmonella species* *Shigella species* *Vibrio* *Yersinia*
METHOD	Culture isolations and Serotyping (bacterial or latex agglutination, all organisms are confirmed before being typed)
AVAILABLE	All clients
PATIENT PREP	N/A
SPECIMEN	Pure isolate of the organism
COLLECT IN	Nutrient media slant or plate that supports organism growth
PROCESSING	Fresh subculture
TRANSPORT	Room temperature
TIME CRITICAL	Organism must be received in our lab within 24 hours of subculture
LABEL	Patient's full name or unique ID number, and date of subculture
REQUISITION	Infectious Disease Test Request Form
TEST COMPLETE	Variable (depends on organism)
RESULTS	Organism and serotype
REPORTED	Mail, e-mail, or fax, as established with provider
NOTE	Requisition must include submitting laboratory's presumptive identification of the organism to be typed.
CONTACT	Bacteriology Section (801) 965-2400

Bacteriology

Escherichia coli (EHEC)

TEST	*E. coli* shiga-toxin producing strain isolation
METHOD	Culture isolations, EIA, bacterial agglutination
AVAILABLE	Laboratories providing stool culture
PATIENT PREP	See provider protocol
SPECIMEN	MaConkey Broth or GN Broth, 24 hour growth and found to be positive for shiga toxin by EIA EHEC test
TRANSPORT	After 24 hour incubation at 37°C, refrigerate until shipped on ice.
TIME CRITICAL	Should be received in our lab within 24 hours of subculture
LABEL	Patient's full name or unique ID number, and date of collection or subculture
REQUISITION	Infectious Disease Test Request Form
TEST COMPLETE	Negatives = 72 hours; positives = variable depending on confirmation testing
RESULTS	Shiga toxin producing strains of *E. coli* are O and h antigen typed, the format of the report is *Escherichia coli* O57-h7.
REPORTED	Mail, e-mail, or fax, as established with provider
NOTE	Some toxin producing isolates are referred to CDC for typing.
CONTACT	Bacteriology Section (801) 965-2400

Bacteriology

Neisseria gonorrhoeae, Neisseria meningitidiis

TEST	*N. gonorrhoeae; N. meningitidiis*
METHOD	Culture confirmation
AVAILABLE	All clients
PATIENT PREP	N/A
SPECIMEN	Pure culture of the organism
COLLECT IN	Appropriate media slant or plate (MTM, chocolate agar)
PROCESSING	Fresh subculture
TRANSPORT	Best in CO_2 pack at 32-35 degrees C
TIME CRITICAL	To be viable outside of a 35 degree CO2 pack, must be received in the lab within four hours of being removed from the incubator.
LABEL	Patient's full name or unique ID number, and date of subculture
REQUISITION	Infectious Disease Test Request Form
TEST COMPLETE	Three days from receipt in our lab
RESULTS	Presence or absence
REPORTED	Mail, e-mail, or fax, as established with provider
NOTE	*Neisseria meningitidis* will be serotyped. *Neisseria gonorrhoeae* is identified by NAAT.
CONTACT	Bacteriology Section (801) 965-2400

Bacteriology

Stool for Bacterial Pathogens

TEST	Stool for bacterial pathogens (*Salmonella, Shigella*, and *Campylobacter).* Other pathogens may be tested upon request.
METHOD	Routine culture
AVAILABLE	All clients
PATIENT PREP	If a patient has had a barium gastro/enteric procedure, wait at least 72 hours before collecting a specimen
SPECIMEN	Feces (stool), rectal swab
COLLECT IN	Cary Blair Medium containers available from Technical Services
PROCESSING	Do not fill beyond red line ("Add specimen to this line"). Mix well with pink medium (instruction sheet enclosed with collection kit). **Do not use the collection device past the expiration date printed on the label (i.e., EXP: 11/10)**.
TRANSPORT	Best at 2 to 8 degrees C
TIME CRITICAL	Sample should be received in our lab within 24 hours of collection
LABEL	Patient's full name or unique ID number, and collection date (space provided on the container label)
REQUISITION	Infectious Disease Test Request Form
TEST COMPLETE	Usually within 4 days of receipt
RESULTS	Pathogen isolated (positive) or "No Pathogens [detailed] recovered" (negative)
REPORTED	Mail, e-mail, or fax, as established with provider
NOTE	*Salmonella* and *Shigella* isolates will be serotyped.
CONTACT	Bacteriology Section (801) 965-2400

Bioterrorism Response

Bacillus anthracis (Anthrax)

TEST	*Bacillus anthracis* (Anthrax)
METHOD	LRN Procedures
AVAILABLE	All clients – Contact Utah Public Health Laboratory prior to submitting specimens.
PATIENT PREP	N/A
SPECIMEN	Culture isolate, cutaneous lesions, stool, rectal swab, blood cultures, whole blood, sputum, CSF, tissue, nasal swab and environmental samples.
COLLECT IN	See *Bacillus anthracis* in Appendix A
PROCESSING	See *Bacillus anthracis* in Appendix A
TRANSPORT	See *Bacillus anthracis* in Appendix A. Ship suspect isolates as Suspected Category A Infectious Substance.
TIME CRITICAL	Should be received in our laboratory as soon as possible
LABEL	Patient's full name or unique ID number, and date of collection or subculture
REQUISITION	Infectious Disease Test Request Form
TEST COMPLETE	<1 to 3 days
RESULTS	Recovered or not recovered; detected or not detected
REPORTED	Phone, fax, or e-mail, as established with provider
NOTE	It is mandatory that UPHL be contacted prior to submitting samples for testing.
CONTACT	(801) 965-2561: Jana Coombs or Kim Christensen

Bioterrorism Response

Brucella species (Brucellosis)

TEST	*Brucella* species (Brucellosis)
	Brucella Serology
METHOD	LRN Procedures
AVAILABLE	All clients – Contact Utah Public Health Laboratory prior to submitting specimens.
PATIENT PREP	N/A
SPECIMEN	Organism isolate, environmental samples, blood, serum, spleen, liver or abscess
COLLECT IN	See *Brucella species* in Appendix A
PROCESSING	See *Brucella species* in Appendix A
TRANSPORT	See *Brucella species* in Appendix A. Ship suspect isolates as Suspected Category A Infectious Substance.
TIME CRITICAL	Should be received in our laboratory as soon as possible
LABEL	Patient's full name or unique ID number, and date of collection or subculture
REQUISITION	Infectious Disease Test Request Form
TEST COMPLETE	Brucella species: <1 to 7 days
	Brucella Serology: 1day
RESULTS	Brucella species: Recovered or not recovered; detected or not detected
	Brucella Serology: *Serum titer*
REPORTED	Phone, fax, or e-mail, as established with provider
NOTE	It is mandatory that UPHL be contacted prior to submitting samples for testing.
CONTACT	(801) 965-2561: Jana Coombs or Kim Christensen

Bioterrorism Response

Burkholderia mallei and Burkholderia pseudomallei

TEST	*Burkholderia mallei* (Glanders) and *Burkholderia pseudomallei* (Melioidiosis)
METHOD	LRN Procedures
AVAILABLE	All clients – Contact Utah Public Health Laboratory prior to submitting specimens.
PATIENT PREP	N/A
SPECIMEN	Organism isolate, blood, serum, urine, abscesses, tissue aspirates, body fluids (throat, nasal, skin or sputum for intentional release exposures)
COLLECT IN	See *Burkholderia mallei* and *Burkholderia pseudomallei* in Appendix A
PROCESSING	See *Burkholderia mallei* and *Burkholderia pseudomallei* in Appendix A
TRANSPORT	See *Burkholderia mallei* and *Burkholderia pseudomallei* in Appendix A. Ship suspect isolates as Suspected Category A Infectious Substance.
TIME CRITICAL	Should be received in our laboratory as soon as possible
LABEL	Patient's full name or unique ID number and date of collection or subculture
REQUISITION	Infectious Disease Test Request Form
TEST COMPLETE	<1 to 5 days
RESULTS	Recovered or not recovered; detected or not detected
REPORTED	Phone, fax, or e-mail, as established with provider
NOTE	It is mandatory that UPHL be contacted prior to submitting samples for testing.
CONTACT	(801) 965-2561: Jana Coombs or Kim Christensen

Bioterrorism Response

Clostridium botulinum

TEST	*Clostridium botulinum* culture and toxin (Botulism)
METHOD	LRN Procedures
AVAILABLE	All Clients – Contact Utah Public Health Laboratory prior to submitting specimens. **PATIENT PREP** N/A
SPECIMEN	Stool, enema fluid, gastric aspirate, vomitus, serum, tissue, wound, exudates, organism isolate, postmortem specimens, food and environmental samples
COLLECT IN	See *Clostridium botulinum* in Appendix A
PROCESSING	See *Clostridium botulinum* in Appendix A
TRANSPORT	See *Clostridium botulinum* in Appendix A. Ship suspect isolates as Suspected Category A Infectious Substance.
TIME CRITICAL	Should be received in our laboratory as soon as possible
LABEL	Patient's full name or unique ID number, and date of collection or subculture
REQUISITION	Infectious Disease Test Request Form
TEST COMPLETE	48 to 96 hours
RESULTS	Recovered or not recovered
REPORTED	Phone, fax, or e-mail, as established with provider
NOTE	It is mandatory that UDOH Epidemiology be contacted prior to submitting samples for testing.
CONTACT	(801) 965-2561: Jana Coombs or Kim Christensen

Bioterrorism Response

Coxiella burnetii (Q-fever)

TEST	*Coxiella burnetii* (Q-fever)
METHOD	LRN Procedures
AVAILABLE	All clients – Contact Utah Public Health Laboratory prior to submitting specimens.
PATIENT PREP	N/A
SPECIMEN	Environmental samples, blood, serum, nasopharyngeal swab, bronchial/tracheal washing or lesion exudate
COLLECT IN	See *Coxiella burnetii* in Appendix A
PROCESSING	See *Coxiella burnetii* in Appendix A
TRANSPORT	See *Coxiella burnetii* in Appendix A
TIME CRITICAL	Should be received in our laboratory as soon as possible
LABEL	Patient's full name or unique ID number, and date of collection or subculture
REQUISITION	Infectious Disease Test Request Form
TEST COMPLETE	1 day
RESULTS	Detected or not detected
REPORTED	Phone, fax, or e-mail, as established with provider
NOTE	It is mandatory that UPHL be contacted prior to submitting samples for testing.
CONTACT	(801) 965-2561: Jana Coombs or Kim Christensen

Bioterrorism Response

Environmental Sample Multi-Agent Screen

TEST	Environmental Sample Multi-Agent Screen
METHOD	LRN Procedures
AVAILABLE	All clients – Contact Utah Public Health Laboratory prior to submitting specimens
PATIENT PREP	N/A
SPECIMEN	Environmental samples; MUST be pre-screened for Explosives, Radiologicals, Flammables, Corrosives, and VOCs.
COLLECT IN	Original container or sterile, non-glass container **DO NOT send**: glass containers, calcium alginate or cotton swabs, swabs with wooden shaft or dry swabs
PROCESSING	MUST be pre-screened for Explosives, Radiologicals, Flammables, Corrosives, and VOCs. Chain of custody should accompany samples.
TRANSPORT	Room temperature. Package and transport according to safe handling, packaging and shipping guidelines.
TIME CRITICAL	Should be received in our laboratory as soon as possible
LABEL	Unique ID number/Case ID number, date of collection
REQUISITION	BT Environmental Specimen Form
TEST COMPLETE	1 day
RESULTS	Detected/Not detected; Recovered/Not recovered
REPORTED	Phone, fax, or e-mail, as established with provider
NOTE	It is mandatory that UPHL be contacted prior to submitting samples for testing.
CONTACT	(801) 965-2561: Jana Coombs or Kim Christensen

Bioterrorism Response

Francisella tularensis (Tularemia)

TEST	*Francisella tularensis* (Tularemia)
	Francisella tularensis Serology
METHOD	LRN Procedures
AVAILABLE	All clients – Contact Utah Public Health Laboratory prior to submitting specimens.
PATIENT PREP	N/A
SPECIMEN	Organism isolate, environmental samples, blood cultures, biopsied tissue, ulcer or lesion scraping or aspirate, lesion swabs, sputum, bronchial/tracheal wash, serum for serological diagnosis
COLLECT IN	See *Francisella tularensis* in Appendix A
PROCESSING	See *Francisella tularensis* in Appendix A
TRANSPORT	See *Francisella tularensis* in Appendix A. Ship suspect isolates as Suspected Category A Infectious Substance.
TIME CRITICAL	Should be received in our laboratory as soon as possible
LABEL	Patient's full name or unique ID number, and date of collection or subculture
REQUISITION	Infectious Disease Test Request Form
TEST COMPLETE	*Francisella tularensis*: <1 to 7 days, depending on when the specimen was submitted
	Francisella tularensis Serology: *1 day*
RESULTS	*Francisella tularensis*: Recovered or not recovered; detected or not detected
	Francisella tularensis Serology: *Serum titer*
REPORTED	Phone, fax, or e-mail, as established with provider
NOTE	It is mandatory that UPHL be contacted prior to submitting samples for testing.
CONTACT	(801) 965-2561: Jana Coombs or Kim Christensen

Bioterrorism Response

Middle Eastern Respiratory Virus Syndrome Coronavirus (MERS-CoV)

TEST	Middle Eastern Respiratory Virus Syndrome Coronavirus (MERS-CoV)
METHOD	LRN Procedures
AVAILABLE	All clients – Contact UDOH Epidemiology prior to submitting specimens: (801)538-6191.
PATIENT PREP	N/A
SPECIMEN	Nasopharyngeal or Oropharyngeal swabs, sputum, lower respiratory tract aspirates/washes, serum **DO NOT send** calcium alginate or cotton swabs, swabs with wooden shafts or dry swabs.
COLLECT IN	Swabs must be placed in Viral Transport Media. Sputum, lower respiratory tract aspirates/washes and serum may be placed in a sterile collection container.
PROCESSING	A minimum specimen volume of 500µL is required for testing.
TRANSPORT	Keep at 2-8°C for up to 48 hours of collection. If delay is expected, store specimens at -70°C. Samples should be received at UPHL within 48 hours of collection. If this is not possible, specimens may be frozen at -70°C and transported on dry ice.
TIME CRITICAL	Should be received in our laboratory as soon as possible, specifically within 48 hours of collection.
LABEL	Patient's full name or unique ID number, and date of collection or subculture
REQUISITION	Infectious Disease Test Request Form
TEST COMPLETE	1 day
RESULTS	Detected, not detected, equivocal
REPORTED	Phone, fax, or e-mail, as established with provider
NOTE	It is mandatory that UDOH Epidemiology be contacted prior to submitting samples for testing.
CONTACT	(801) 965-2561: Jana Coombs or Kim Christensen

Bioterrorism Response

Orthopox viruses

TEST	Orthopox viruses
METHOD	LRN Procedures
AVAILABLE	All Clients – Contact UDOH Epidemiology prior to submitting specimens: (801)538-6191.
PATIENT PREP	N/A
SPECIMEN	**Lesion Material** (Skin or crust from roof of vesicle or pustule, slide (touch prep), EM grid or swab from vesicular or pustular fluid, punch biopsy). **Ocular impressions or swabs** (if conjunctivitis is present). **Serum** (serum alone should never be used to diagnose an orthopox infection if rash is still present).
COLLECT IN	See *Variola virus* in Appendix A
PROCESSING	See *Variola virus* in Appendix A
TRANSPORT	See *Variola virus* in Appendix A
TIME CRITICAL	Should be received in our laboratory as soon as possible
LABEL	Patient's full name or unique ID number, and date of collection or subculture
REQUISITION	Infectious Disease Test Request Form
TEST COMPLETE	1 day
RESULTS	Detected or not detected
REPORTED	Phone, fax, or e-mail, as established with provider
NOTE	Refer to the Smallpox Specimen Information link on the Microbiology website (http://health.utah.gov/lab/microbiology/smallpox.pdf) It is mandatory that UPHL or UDOH Epidemiology be contacted prior to submitting samples for testing.
CONTACT	(801) 965-2561: Jana Coombs or Kim Christensen

Bioterrorism Response

Ricin toxin

TEST	Ricin toxin
METHOD	LRN Procedures
AVAILABLE	Ordered by Epidemiology, Local Health, Local Law, or FBI
PATIENT PREP	N/A
SPECIMEN	Environmental samples
COLLECT IN	Original container or sterile, non-glass container
PROCESSING	Use universal precautions – all manipulations under a Biosafety Cabinet
TRANSPORT	Refer to Safe Handling, Packaging, and Shipping Guidelines
TIME CRITICAL	Should be received in our laboratory as soon as possible
LABEL	Identification, sample description, date of collection
REQUISITION	Infectious Disease Test Request Form
TEST COMPLETE	1 day
RESULTS	Reactive or not reactive
REPORTED	Phone, fax, or e-mail, as established with provider
NOTE	It is mandatory that UPHL be contacted prior to submitting samples for testing.
CONTACT	(801) 965-2561: Jana Coombs or Kim Christensen

Bioterrorism Response

Variola virus (Smallpox)- Referral Test

TEST	*Variola* virus (Smallpox)
METHOD	Testing location/method will be decided after consultation with CDC
AVAILABLE	All Clients – Contact UDOH Epidemiology prior to submitting specimens: (801)538-6191
PATIENT PREP	N/A
SPECIMEN	Microscope slide touch preps, scabs, dried vesicular fluid, vesicular swabs, vesicular tissue
COLLECT IN	See *Variola virus* in Appendix A
PROCESSING	See *Variola virus* in Appendix A
TRANSPORT	See *Variola virus* in Appendix A. Ship all samples as Suspected Category A Infectious Substance.
TIME CRITICAL	Should be received in our laboratory as soon as possible
LABEL	Patient's full name or unique ID number, and date of collection
REQUISITION	Infectious Disease Test Request Form
TEST COMPLETE	Call for details
RESULTS	Detected or not detected
REPORTED	Phone, fax, or e-mail, as established with provider
NOTE	Refer to the Smallpox Specimen Information link on the Microbiology website http://health.utah.gov/lab/microbiology/smallpox.pdf It is mandatory that UPHL or UDOH Epidemiology be contacted prior to submitting samples for testing.
CONTACT	(801) 965-2561: Jana Coombs or Kim Christensen

Bioterrorism Response

Yersinia pestis (Plague)

TEST	*Yersinia pestis* (Plague)
	Yersinia pestis Serology
METHOD	LRN Procedures
AVAILABLE	All clients – Contact Utah Public Health Laboratory prior to submitting specimens.
PATIENT PREP	N/A
SPECIMEN	Isolate of organism, environmental samples, bronchial wash, tracheal aspirate, sputum, nasopharyngeal swabs, lymph node aspirates, serum, lesion exudates, tissue smears, blood
COLLECT IN	See *Yersinia pestis* in Appendix A
PROCESSING	See *Yersinia pestis* in Appendix A
TRANSPORT	See *Yersinia pestis* in Appendix A. Ship suspect isolates as Suspected Category A Infectious Substance.
TIME CRITICAL	Should be received in our laboratory as soon as possible
LABEL	Patient's full name or unique ID number, and date of collection or subculture
REQUISITION	Infectious Disease Test Request Form
TEST COMPLETE	*Yersinia pestis*: <1 to 7 days
	Yersinia pestis Serology: 1 day
RESULTS	*Yersinia pestis*: Recovered or not recovered; detected or not detected
	Yersinia pestis Serology: *Serum titer*
REPORTED	Phone, fax, or e-mail, as established with provider
NOTE	It is mandatory that UPHL be contacted prior to submitting samples for testing.
CONTACT	(801) 965-2561: Jana Coombs or Kim Christensen

Immunology

Hantavirus

TEST	Hantavirus IgG and IgM (Sin Nombre Virus)
METHOD	Enzyme-linked Immunosorbent Assay (ELISA)
AVAILABLE	All clients
PATIENT PREP	Use aseptic collection technique
SPECIMEN	Minimum of 1 mL serum
COLLECT IN	Vaccutainer tube (gold, tiger or red top only)
PROCESSING	Allow blood to completely clot, spin at 3200 rpm for 10 minutes to remove lipids and bacterial contaminants. You may submit the blood sample as is if you do not have a centrifuge. **Do not freeze whole blood**.
TRANSPORT	Room temperature or refrigerated (do not freeze)
TIME CRITICAL	Specimen must be received in our lab within 7 days of collection
LABEL	Patient's full name or unique ID number, and collection date
REQUISITION	Infectious Disease Test Request Form
TEST COMPLETE	Test run within one week (2 weeks maximum) depending on number received
RESULTS	Negative, indeterminate, or positive
REPORTED	Mail, e-mail, or fax, as established with provider
CONTACT	Virology Section (801) 965-2584

Immunology

Hepatitis B and Hepatitis C viruses

TEST	Hepatitis B surface antigen (HBsAg), Hepatitis B surface antigen Confirmation (HBsAg Conf), Hepatitis B surface antibody (HBsAb) or Hepatitis C viral antibody (HCVAb).
METHOD	Chemiluminescent Microparticle Immunoassay (CMIA)
AVAILABLE	All clients
PATIENT PREP	Use aseptic collection technique
SPECIMEN	Minimum of 1 mL serum **per test**
COLLECT IN	Vaccutainer tube (gold, tiger or red top only)
PROCESSING	Allow blood to completely clot, spin at 3200 rpm for 10 mins to remove lipids and bacterial contaminants. You may submit the blood sample as is if you do not have a centrifuge. **Do not freeze whole blood**.
TRANSPORT	Room temperature or refrigerated
TIME CRITICAL	Must be received in our lab within 7 days of collection
LABEL	Patient's full name or unique ID number, and collection date
REQUISITION	Infectious Disease Test Request Form
TEST COMPLETE	Tests run Mondays and Thursdays, reported same day (except positive antigen tests. HBsAg positives require confirmation before reporting)
RESULTS	Negative, indeterminate or positive
REPORTED	Mail, e-mail, or fax, as established with provider
NOTE	Performance has not been established for the use of cadaveric specimens
CONTACT	Virology Section (801) 965-2584

Immunology

Human immunodeficiency virus

TEST	HIV Ag/Ab Combo screening test
METHOD	Chemiluminescent Microparticle Immunoassay (CMIA)
AVAILABLE	All clients
PATIENT PREP	Use aseptic blood collection technique
SPECIMEN	2 mL serum (**DO NOT** send Orasure samples)
COLLECT IN	Vaccutainer tube (gold, tiger or red top only)
PROCESSING	Allow blood to completely clot, spin at 3200 rpm for 10 minutes to remove lipids and bacterial contaminants. You may submit the blood sample as is if you do not have a centrifuge. **Do not freeze whole blood**.
TRANSPORT	Room temperature or refrigerated
TIME CRITICAL	Must be received in our lab within 7 days of collection
LABEL	Patient's full name or unique ID number, and collection date
REQUISITION	Infectious Disease Test Request Form
TEST COMPLETE	CMIA tests are run Tuesdays and Fridays. Negatives are reported the same day. Positives require Multi-spot confirmation testing that is performed once per week or as volume allows.
RESULTS	Non-reactive, Reactive with Multi-spot confirmation results or Indeterminate (new specimen should be submitted)
REPORTED	Mail, e-mail, or fax, as established with provider
NOTE	All specimens that are CMIA repeatedly reactive are automatically confirmed by Biorad Multi-spot
CONTACT	Virology Section (801) 965-2584

Immunology

Human immunodeficiency virus

TEST	HIV 1/2 Multi-spot Rapid Test (HIV confirmation test)
METHOD	Qualitative immunoassay
AVAILABLE	All clients with a positive HIV Ag/Ab Combo (screening) test
PATIENT PREP	Use aseptic collection technique
SPECIMEN	Minimum of 1 mL serum
COLLECT IN	Vaccutainer tube (gold, tiger or red top only)
PROCESSING	Allow blood to completely clot, spin at 3200 rpm for 10 minutes to remove lipids and bacterial contaminants. You may submit the blood sample as is if you do not have a centrifuge. **Do not freeze whole blood**.
TRANSPORT	Room temperature, refrigerated, or frozen
TIME CRITICAL	Specimen must be received in our lab within 7 days of collection
LABEL	Patient's full name or unique ID number, and collection date
REQUISITION	Infectious Disease Test Request Form
TEST COMPLETE	Test run within one week (2 weeks maximum) depending on number received
RESULTS	Negative, Positive, or Indeterminate
REPORTED	Mail, e-mail, or fax, as established with provider
CONTACT	Virology Section (801) 965-2584

Immunology

Syphilis

TEST	Syphilis IgG
METHOD	ELISA
AVAILABLE	All clients
PATIENT PREP	Use aseptic collection technique
SPECIMEN	Serum
COLLECT IN	Vaccutainer tube (gold, tiger or red top only)
PROCESSING	Allow blood to completely clot, spin at 3200 rpm for 10 mins to remove lipids and bacterial contaminants. You may submit the blood sample as is if you do not have a centrifuge. **Do not freeze whole blood**.
TRANSPORT	Room temperature or refrigerated
TIME CRITICAL	Specimen must be received in our lab within 5 days of collection
LABEL	Patient's full name or unique ID number and collection date
REQUISITION	Infectious Disease Test Request Form
TEST COMPLETE	Test run on Tuesdays and Fridays as volume allows
RESULTS	Negative, Positive, or Indeterminate
REPORTED	Mail, e-mail, or fax, as established with provider
NOTES	Specimens with Positive or Indeterminate results will be tested by RPR.
CONTACT	Virology Section (801) 965-2584

Immunology

Syphilis

TEST	Syphilis Rapid Plasmin Reagin (RPR)
METHOD	Enzyme Immuno-assay (EIA)
AVAILABLE	All clients
PATIENT PREP	Use aseptic collection technique
SPECIMEN	Minimum of 1 mL serum
COLLECT IN	Vaccutainer tube (gold, tiger or red top only)
PROCESSING	Allow blood to completely clot, spin at 3200 rpm for 10 minutes to remove lipids and bacterial contaminants. You may submit the blood sample as is if you do not have a centrifuge. **Do not freeze whole blood**.
TRANSPORT	Room temperature or refrigerated
TIME CRITICAL	Must be received in our lab within 5 days of collection
LABEL	Patient's full name or unique ID number, and collection date
REQUISITION	Infectious Disease Test Request Form
TEST COMPLETE	Test run on Tuesdays and Thursdays
RESULTS	Negative or Reactive with dilution titer (i.e, reactive 1:4) and accompanying TP-PA result
REPORTED	Mail, e-mail, or fax, as established with provider
NOTE	Avoid sending grossly hemolyzed or lipemic samples
	Specimens with discrepant IgG/RPR results will be confirmed by TP-PA. Additional fee will apply.
CONTACT	Virology Section (801) 965-2584

Immunology

Syphilis

TEST	*Treponema pallidum* Particle Agglutination (TP-PA)
METHOD	Qualitative gelatin particle agglutination
AVAILABLE	All clients as part of the Syphilis algorithm (samples with discrepant IgG/RPR results only)
PATIENT PREP	Use aseptic collection technique
SPECIMEN	Minimum of 1 mL serum
COLLECT IN	Vaccutainer tube (gold, tiger or red top only)
PROCESSING	Allow blood to completely clot, spin at 3200 rpm for 10 minutes to remove lipids and bacterial contaminants. You may submit the blood sample as is if you do not have a centrifuge. **Do not freeze whole blood**.
TRANSPORT	Room temperature or refrigerated
TIME CRITICAL	Must be received in our lab within 48 hours of collection
LABEL	Patient's full name or unique ID number, and collection date
REQUISITION	Infectious Disease Test Request Form
TEST COMPLETE	Test performed on Tuesdays and Thursdays
RESULTS	Nonreactive, Reactive, or Indeterminate
REPORTED	Mail, e-mail, or fax, as established with provider
NOTE	For indeterminate test results, it is recommended that the patient be retested in 2 weeks.
CONTACT	Virology Section (801) 965-2584

Immunology

Tuberculosis

TEST	TB Quantiferon
METHOD	ELISA
AVAILABLE	All clients
PATIENT PREP	Use aseptic collection technique
SPECIMEN	Blood
COLLECT IN	High-altitude tubes made by the manufacturer (Cellestis) and supplied by Unified State Labs. Must draw 1 Nil, 1 Mitogen and 1 Antigen tube per patient
PROCESSING	Fill tubes with blood to the black mark. Shake immediately and vigorously 10 times after filling
TRANSPORT	Send to the laboratory with accompanying paperwork within 14 hours of collection at room temperature
TIME CRITICAL	Specimen must be received in our lab within 14 hours of collection
LABEL	Patient's full name or unique ID number, collection date and time (write in on lab slip)
REQUISITION	Infectious Disease Test Request Form
TEST COMPLETE	Test run on Wednesdays
RESULTS	Negative, Positive, or Indeterminate
REPORTED	Mail, e-mail, or fax, as established with provider
NOTE	Additional processing, transport, and time-critical options are available upon request for qualified sites. Please contact the Immunology Laboratory for details.
CONTACT	Virology Section (801) 965-2584

Molecular Laboratory

Bordetella pertussis PCR Referral Test

TEST	*Bordetella pertussis* PCR (pertussis, whooping cough) Referral Test See also Virus Identification – Respiratory Panel which includes *Bordetella pertussis*, *Chlamydophila pneumoniae*, and *Mycoplasma pneumoniae*
METHOD	Polymerase Chain Reaction (PCR)
AVAILABLE	All clients
PATIENT PREP	Best if collected following a coughing spasm
SPECIMEN	Nasopharyngeal swab, aspirate, or isolate
COLLECT IN	Nasopharyngeal Swab: Dacron or polyester swab in Universal/Viral Transport Media. Refrigerated as soon as possible after collection. Aspirate: sterile, leak-proof container, refrigerated or frozen Isolate: send in Regan-Lowe Transport Media, refrigerated, or on Cryobeads, frozen
PROCESSING	Do not use calcium alginate swabs, swabs with wooden shaft or charcoal based medium.
TRANSPORT	Cold packs or dry ice. Refrigerated specimens should be shipped on cold packs. Frozen specimens should be shipped frozen.
TIME CRITICAL	UPHL Send to UPHL as soon as possible after collection
LABEL	Patient's full name or unique ID number, and date of collection
REQUISITION	Infectious Disease Test Request Form
TEST COMPLETE	Specimens are referred to Minnesota Department of Health-Public Health Laboratory for Bordetella species PCR testing
RESULTS	Bordetella species Detected or Not Detected
REPORTED	Results are mailed, e-mailed or faxed, as established with provider
NOTE	Throat and nasal swabs are unacceptable samples
CONTACT	(801) 965-2561: Jana Coombs or Annette Atkinson

Molecular Laboratory

Norovirus PCR Referral Testing

TEST	Norovirus PCR (Outbreak related) Referral Testing
METHOD	Polymerase Chain Reaction (PCR)
AVAILABLE	Local and State Health Department clients. Contact Utah Public Health Laboratory prior to submitting specimens.
PATIENT PREP	N/A
SPECIMEN	Stool – A minimum of 2-4 specimens per outbreak required. Each specimen must be from a unique patient.
COLLECT IN	Sterile container or Cary-Blair Transport Medium
PROCESSING	A minimum of 0.5mL of stool is required for processing. Keep stool refrigerated at 2-8 degrees C until transport.
TRANSPORT	Cold packs.
TIME CRITICAL	Should be received at UPHL within 72 hours of collection
LABEL	Patient's full name or unique ID number, and date of collection.
REQUISITION	COSC Stool Submittal Form
TEST COMPLETE	Specimens are referred to California Public Health Laboratory
RESULTS	Norovirus RNA detected or no Norovirus RNA detected
REPORTED	Results are mailed, e-mailed or faxed, as established with provider
NOTE	Please contact UPHL prior to sending specimens. Minimum of 2-4 specimens per outbreak required
CONTACT	(801) 965-2561: Jana Coombs or Annette Atkinson

Molecular Laboratory

West Nile Virus (Human) IgM

TEST	West Nile Virus IgM, (Human)
METHOD	Microsphere Immunoassay (MIA)
AVAILABLE	All clients. Prior to submitting specimen, contact UDOH Epidemiology at (801)538-6191
PATIENT PREP	N/A
SPECIMEN	Serum or CSF; a minimum specimen volume of 100µL is required for testing
COLLECT IN	Sterile container
PROCESSING	Serum: separate from red blood cells and refrigerate (freeze if transport delayed) CSF: refrigerate
TRANSPORT	Cold packs or dry ice. Refrigerated specimens should be shipped on cold packs.

Frozen specimens should be shipped frozen **TIME CRITICAL** NA

LABEL	Patient's full name or unique ID number, date of collection, and date of onset of symptoms
REQUISITION	Infectious Disease Test Request Form
TEST COMPLETE	7 days
RESULTS	WNV IgM antibody detected by MIA; WNV IgM antibody not detected by MIA; Inconclusive
REPORTED	Fax, or e-mail, as established with provider
NOTE	If initial serum specimen was collected within 9 days of onset of symptoms, a convalescent serum will be requested for IgM negative or inconclusive tests.
CONTACT	(801) 965-2561: Jana Coombs or Annette Atkinson

Molecular Laboratory

West Nile Virus, St. Louise Encephalitis Virus, or Western Equine Encephalitis Virus PCR

TEST	West Nile Virus, St. Louis Encephalitis Virus, or Western Equine Encephalitis Virus PCR
METHOD	Polymerase Chain Reaction (PCR)
AVAILABLE	Mosquito Abatement Districts . Contact UDOH Epidemiology at (801)538-6191 or Division or Wildlife Resources at (801) 538-4767 before submitting avian oral swabs and dead bird reports.
PATIENT PREP	N/A
SPECIMEN	Mosquitos = 10-100 insects, pooled by species
COLLECT IN	Mosquitoes = tubes from Mosquito Abatement District. Swabs = Ziploc bags; outer bag must be clean.
PROCESSING	Keep mosquitoes at 2 -8 degrees C. Keep avian oral swabs at ambient temperature.
TRANSPORT	On cold packs
TIME CRITICAL	Within 48 hours of collection
LABEL	Location and date of collection. Species of source animal. Number of insects per tube and species.
REQUISITION	Mosquito Abatement Worksheet
TEST COMPLETE	5 days
RESULTS	Virus RNA detected by PCR; Virus RNA not detected by PCR
REPORTED	Mail, e-mail, or fax, as established with provider
CONTACT	(801) 965-2561: Jana Coombs or Kim Christensen

Mycobacteriology

Acid-fast Bacillus stain

TEST	Acid-fast bacillus stain (AFB smear)
METHOD	Auramine-O (fluorescent), confirmatory = Kinyoun acid-fast stain
AVAILABLE	All clients
PATIENT PREP	Sputum = collect early morning specimen from deep, productive cough (have patient rinse mouth with water just prior to collection). Sterile body sites, use sterile collection technique. Urine = collect with aseptic culture technique.
SPECIMEN	All specimens (except blood) submitted for AFB culture will have a direct AFB stain performed.
COLLECT IN	Bronchial washing/lavage, sputum = sterile 50mL screw cap conical tube (available from Tech Services) CSF, body fluids, feces, tissue, urine = sterile container. **Swabs are unacceptable for testing.**
PROCESSING	Avoid tap water on any instrument used in a procedure as it may contain AFB. Submit tissue in sterile saline.
TRANSPORT	Room temperature 24hrs; Refrigerated 1 week; Frozen 1 week.
TIME CRITICAL	Must be received in our lab within 5 days of collection
LABEL	Patient's full name or unique ID number, and collection date
REQUISITION	Infectious Disease Test Request Form
TEST COMPLETE	80% within 24 hrs of receipt in our lab
RESULTS	Negative for acid-fast bacilli, or Positive with quantitative grading using the American Lung Accusation protocol. **AFB culture with smear is recommended. A negative smear result alone does not rule out the presence of AFB.**
REPORTED	All positive results are phoned. Reported as a preliminary to AFB culture Reports are mailed, e-mailed, or faxed, as established with the provider
NOTE	All positive fluorescent smears are confirmed with a permanent staining method (Kinyoun)
CONTACT	TB section (Bacteriology/Mycobacteriology) (801) 965-2400

Mycobacteriology

Acid-fast bacilli (AB) culture

TEST	Acid-fast bacilli (AFB) culture
METHOD	Rapid, liquid culture; standard media culture
AVAILABLE	All clients, a fee is charged for specimens from private laboratories.
PATIENT PREP	Sputum = collect early morning specimen from deep, productive cough (have patient rinse mouth with water just prior to collection). Sterile body sites use aseptic collection technique. Urine = collect with aseptic culture technique (clean catch).
SPECIMEN	Bronchial washing, lavage = >5 mL, CSF = >5 mL, other body fluids >2 mL.
COLLECT IN	Bronchial washing/lavage, sputum = sterile 50mL screw cap conical tube (available from Tech Services) CSF, body fluids, feces, tissue, urine = sterile, leak proof container. **Swabs are unacceptable for testing.**
PROCESSING	Avoid tap water on any instrument used in a procedure as it may contain AFB. Submit tissue in sterile saline.
TRANSPORT	Room temperature24hrs; Refrigerated 1 week; Frozen 1 week. **Do not use transport media**.
TIME CRITICAL	Must be received in our lab within 5 days of collection
LABEL	Patient's full name or unique ID number, and collection date
REQUISITION	Infectious Disease Test Request Form
TEST COMPLETE	Negative = 7 weeks. Positive depends on organism isolated (preliminary positive reports sent when AFB growth is detected)
RESULTS	No AFB isolated (negative), or Genus and species/complex (positive)
REPORTED	Mail, e-mail, or fax, as established with the provider
NOTE	Susceptibility testing is performed on cultures yielding *M. tuberculosis* complex. Leaking specimens will be rejected
CONTACT	TB section (Bacteriology/Mycobacteriology) (801) 965-2400

Mycobacteriology

MTB/RIF Nucleic Acid Amplification Test

TEST	Cepheid GeneXpert MTB/RIF assay
METHOD	MTB/RIF assay performed on processed respiratory specimens.
AVAILABLE	Testing is part of the AFB culture on positive respiratory specimens.
PATIENT PREP	Sputum = collect early morning specimen from deep, productive cough (have patient rinse mouth with water just prior to collection).
SPECIMEN	Bronchial washing, lavage = >5 mL.
COLLECT IN	Bronchial washing/lavage, sputum = sterile 50mL screw cap conical tube (available from Tech Services) Swabs **are unacceptable for testing.**
PROCESSING	Avoid tap water on any instrument used in a procedure as it may contain AFB. Submit tissue in sterile saline.
TRANSPORT	Room temperature 24hrs; Refrigerated 1 week; Frozen 1 week. **Do not use transport media**.
TIME CRITICAL	Must be received in our lab within 5 days of collection
LABEL	Patient's full name or unique ID number, and collection date
REQUISITION	Infectious Disease Test Request Form
TEST COMPLETE	Within 48 hours of receipt (working days).
RESULTS	*Mycobacterium tuberculosis* complex DNA detected or not detected or test is indeterminate.
REPORTED	Reported as a preliminary to AFB culture. Mail, e-mail, or fax, as established with the provider
NOTE	Testing is performed on the first respiratory specimen from each patient, additional testing must be pre-approved. Testing will not be performed on patients undergoing treatment for tuberculosis.
CONTACT	TB section (Bacteriology/Mycobacteriology) (801) 965-2400

Virology

Chlamydia trachomatis and Neiserria gonorrhea

TEST	*Chlamydia trachomatis* and *Neiserria gonorrhea* NAAT
METHOD	Amplified antigen detection
AVAILABLE	All clients
PATIENT PREP	Clean prep urogenital area as for standard culture collection Urine = standard clean catch procedure
SPECIMEN	Endocervical, male urethral, rectal, pharyngeal, oral (use unisex swab collection kit) Urine (use urine specimen collection kit) Vaginal (use vaginal swab specimen collection kit - clinician or self-collected) Liquid Pap = specimen transfer kit
COLLECT IN	APTIMA collection kits available from Sample Receiving department. Urine volume must fall between the two black lines on the tube. Samples that do not fall within this range will not be performed
PROCESSING	Keep specimens at 2 to 30 degrees C
TRANSPORT	Transport at 2 to 30 degrees C
TIME CRITICAL	Urine samples must be transferred to the APTIMA urine specimen transport tube within 24 hours of collection. Test must be performed within 30 days of collection
LABEL	Patient's full name or unique ID number, and collection date. Do not cover the black lines on the urine collection tubes with labels
REQUISITION	Infectious Disease Test Request Form
TEST COMPLETE	Tests done Monday thru Friday. Apart from the occurrence of technical difficulties, results will be available after 4 pm on test day
RESULTS	Presumed Negative, Equivocal, or Positive
REPORTED	E-mail, Fax or Mail, as established with provider
NOTE	Both chlamydia and gonorrhea tests are performed from the same specimen
CONTACT	Virology Section (801) 965-2584

Virology

Human Papillomavirus (HPV)

TEST	Human papillomavirus NAAT
METHOD	Amplified antigen detection
AVAILABLE	All clients
PATIENT PREP	Follow procedures for collecting gynecological specimen into ThinPrep liquid cytology vials.
SPECIMEN	Cervical (gynecological liquid pap specimen)
COLLECT IN	APTIMA collection kits available from Sample Receiving department. Vortex liquid cytology specimen and transfer 1 ml into APTIMA Specimen Transfer Tube.
PROCESSING	Gynecological specimens in liquid cytology vials may be stored for 30 days at 2-30°C prior to transfer. After transfer into APTIMA kit, keep specimens at 2-30°C
TRANSPORT	Transport at 2 to 30 degrees C
TIME CRITICAL	Transferred specimen must be received in lab within 14 days of collection
LABEL	Patient's full name or unique ID number, and collection date.
REQUISITION	Infectious Disease Test Request Form
TEST COMPLETE	Within 5 business days
RESULTS	Presumed Negative, Positive, or Invalid
REPORTED	E-mail, Fax or Mail, as established with provider
NOTE	
CONTACT	Virology Section (801) 965-2584

Virology

Trichomonas vaginalis

TEST	Trichomonas vaginalis NAAT
METHOD	Amplified antigen detection
AVAILABLE	All clients
PATIENT PREP	Follow procedures for collecting gynecological specimen into ThinPrep liquid cytology vials.
SPECIMEN	Endocervical swab in unisex swab collection tube Vaginal swab in vaginal swab collection tube Cervical (gynecological liquid pap specimen) in specimen transfer tube
COLLECT IN	APTIMA collection kits available from Sample Receiving department. Vortex liquid cytology specimen and transfer 1 ml into APTIMA Specimen Transfer Tube.
PROCESSING	Gynecological specimens in liquid cytology vials may be stored for 30 days at 2-30°C prior to transfer. After transfer into APTIMA kit and for other specimens types, keep at 2-30°C
TRANSPORT	Transport at 2 to 30 degrees C
TIME CRITICAL	Swab specimens must be received within 30 days of collection and transferred gynelogical specimen must be received in lab within 14 days of collection
LABEL	Patient's full name or unique ID number, and collection date.
REQUISITION	Infectious Disease Test Request Form
TEST COMPLETE	Within 5 business days
RESULTS	Presumed Negative, Positive, or Invalid
REPORTED	E-mail, Fax or Mail, as established with provider
NOTE	
CONTACT	Virology Section (801) 965-2584

Virology

General viral culture

TEST	General viral culture
	For detection of viruses other than those detected by molecular methods (including but not limited to enteroviruses and cytomegalovirus)
METHOD	Viral culture
AVAILABLE	All clients
PATIENT PREP	Use aseptic collection technique
SPECIMEN	Relevant to symptoms (CSF, feces, skin lesions, throat washings, urine, swabs)
COLLECT IN	Sterile, leak proof container or VTM
PROCESSING	Keep specimen at 2 to 8 degrees C
TRANSPORT	On Cold packs
TIME CRITICAL	Must be received in our lab within 72 hours of collection
LABEL	Patient's full name or unique ID number, and collection date
REQUISITION	Infectious Disease Test Request Form
TEST COMPLETE	Two to four weeks
RESULTS	Virus isolated or not isolated
REPORTED	Mail, e-mail, or fax, as established with provider
NOTE	Please specify the virus suspected on the request form
	Cultures are not set up on weekends or holidays
CONTACT	Virology Section (801) 965-2584

Virology

Influenza virus PCR

TEST	*Influenza virus PCR*
METHOD	Polymerase Chain Reaction (PCR)
AVAILABLE	All clients
PATIENT PREP	N/A
SPECIMEN	Nasopharyngeal swabs, nasal swabs, throat swabs, dual nasopharyngeal/throat swabs, nasal aspirates, nasal washes, bronchoalveolar lavage, bronchial wash, tracheal aspirate, sputum, lung tissue, and virus culture isolates
COLLECT IN	Swabs must be placed in Viral Transport media. The following may be placed in a sterile collection container: nasal aspirates, nasal washes, bronchoalveolar lavage, bronchial wash, tracheal aspirate, sputum, and lung tissue.
PROCESSING	Keep at 2-8°C for up to 48 hours or at ≤70°C for up to 30 days.
TRANSPORT	Transport at 2 – 8 degrees C or if frozen, transport frozen (do not thaw).
TIME CRITICAL	Samples must be received at UPHL within 48 hours of collection. If it is not possible to transport specimens within 48 hours of collection, specimens may be frozen at ≤ -70°C and transported on dry ice.
LABEL	Patient's full name or unique ID number, and date of collection
REQUISITION	Infectious Disease Test Request Form
TEST COMPLETE	1-2 business days
RESULTS	Influenza A: Not Detected, Detected (will indicate subtype detected), Inconclusive. Influenza B: Not Detected, Detected (will indicate genotype detected), Inconclusive.
REPORTED	Results are mailed, e-mailed or faxed, as established with provider
NOTE	Do not use calcium alginate or cotton swabs, swabs with wooden shaft, or dry swabs A minimum specimen volume of 500µl is required for testing.
CONTACT	Virology section (801) 965-2584

Virology

Herpes simplex virus and Varicella zoster virus

TEST	Herpes simplex virus Type 1/Type 2 (HSV-1/HSV-2) and Varicella Zoster (VZV) by PCR
METHOD	Qualitative Polymerase Chain Reaction
AVAILABLE	All clients
PATIENT PREP	Use aseptic collection technique
SPECIMEN	HSV: Buccal mucosa, eye, genital, rectal, throat or vesicle swabs. VZV: CSF, body fluid, buccal mucosa, eye, genital, rectal, throat or vesicle swabs, or vesicle fluid.
COLLECT IN	Swab or body fluid in viral transport media.
PROCESSING	Refrigerate immediately after collection
TRANSPORT	2 to 8 degrees C
TIME CRITICAL	Must be received in our lab within 72 hours of collection
LABEL	Patient's full name or unique ID number, and collection date
REQUISITION	Infectious Disease Test Request Form
TEST COMPLETE	Tested one to two times per week
RESULTS	Detected or Not Detected
REPORTED	Mail, e-mail, or fax, as established with provider
NOTE	Specimens collected using wood swabs will not be accepted
CONTACT	Virology Section (801) 965-2584

Virology

Rabies

TEST	Rabies (animal specimens only)
METHOD	Fluorescent antibody (FA)
AVAILABLE	Local health departments, animal control agencies and state veterinary diagnostic laboratories only
PATIENT PREP	Animal must be euthanized
SPECIMEN	Bats = entire animal
	Other animals = head only
COLLECT IN	Absorbent material and leak proof container
PROCESSING	Keep at 2 to 8 degrees C
TRANSPORT	2 - 8 degrees C
TIME CRITICAL	Must be received in our lab within 72 hours
LABEL	Unique identification number or victim name and collection date
REQUISITION	Rabies Test Request Form
TEST COMPLETE	Next working day
RESULTS	Negative or positive for Rabies by FA
REPORTED	Mail, e-mail, or fax, as established with provider
NOTE	Testing will incur a fee when national guidelines for submission are not followed.
CONTACT	Virology Section (801) 965-2584

Virology

Virus Identification – Respiratory Panel

TEST	Respiratory Screen (Adenovirus; Coronavirus (229E, HKU1, NL63, OC43); Human Metapneumovirus; Rhino/Enterovirus; Influenza A and B; Parainfluenza 1-4; Respiratory Syncytial Virus [RSV]; *Bordetella pertussis*, *C. pneumoniae; M. pneumoniae.*)
METHOD	FilmArray/PCR
AVAILABLE	All clients
PATIENT PREP	Use aseptic collection technique
SPECIMEN	Nasopharyngeal swab (NPS), nasal swab, and nasal wash.
COLLECT IN	Viral transport media (VTM) collection tubes.
PROCESSING	Keep at 2 to 8 degrees C for up to 3 days, or <15 degrees C for up to 30 days.
TRANSPORT	On Cold packs if not frozen on dry ice if frozen.
TIME CRITICAL	Must be received in our lab within 72 hrs of collection if not frozen and within 30 days if frozen.
LABEL	Patient's full name or unique ID number, and collection date
REQUISITION	Infectious Disease Test Request Form
TEST COMPLETE	Tested daily
RESULTS	Detected or Not Detected for each organism
REPORTED	Mail, e-mail, or fax, as established with provider
NOTE	Specimens collected using wood swabs will not be accepted.
CONTACT	Virology Section (801) 965-2584

Virology

General Virus Culture

TEST	General virus culture
METHOD	Shell-vial/tube culture
AVAILABLE	All clients
PATIENT PREP	Use aseptic collection technique
SPECIMEN	Respiratory: Bronchoalveolar lavage (BAL), nasopharyngeal and nasal aspirates, swabs, or washings, or tracheal aspirate, sputum, throat, tissue (lung, etc.). Non-Respiratory: Eye swab, stool, genital, tissue (brain, colon, kidney, liver, etc.), or urine.
COLLECT IN	Fluid, stool, or tissue transfer into sterile leak-proof container. Place swabs in viral transport media (VTM) collection tubes.
PROCESSING	Place each specimen in a separate sealed bag. Keep at 2-8°C at all times.
TRANSPORT	On Cold packs
TIME CRITICAL	Must be received in our lab within 72 hrs of collection
LABEL	Patient's full name or unique ID number, and collection date
REQUISITION	Infectious Disease Test Request Form
TEST COMPLETE	Within 10 days of receiving sample
RESULTS	Virus Isolated or No Virus Isolated
REPORTED	Mail, e-mail, or fax, as established with provider
NOTE	Respiratory specimens exhibiting evidence of virus growth will be confirmed by FilmArray Respiratory Panel. Non-respiratory specimens exhibiting evidence of virus growth will be confirmed by PCR or fluorescent antibody stain where available. Specimens that are not identified in our laboratory may be referred to an outside laboratory for confirmation. Fees for additional testing will apply.
CONTACT	Virology Section (801) 965-2584

Appendix A:
Appendix A:Bioterrorism Specimen Collection and Transport Guidelines

Bacillus anthracis

ACCEPTABLE SPECIMENS: Specimens of choice will be determined by the clinical presentation. *Environmental or nonclinical samples and samples from announced events are not processed by Sentinel Laboratories. Please contact local law enforcement or UDOH directly.*

1. **Cutaneous lesions**
    a. Vesicular stage: aseptically collect vesicular fluid on sterile swabs from previously unopened vesicle.
    NOTE: The anthrax bacilli are most likely to be seen by Gram stain in the vesicular stage.
    b. Eschar stage: collect eschar material by CAREFULLY lifting the eschar's outer edge. Insert a sterile swab, and then slowly rotate for 2-3 seconds beneath the edge of the eschar without removing it. Transport directly to laboratory at room temperature. For transport time >1 h and < 24 h, transport at 2 to 8°C.
2. **Stool** – Transfer ≥5 grams of stool directly into a clean, dry, sterile, wide-mouth, leak-proof container. Transport unpreserved stool to laboratory within 1 h. For transport time >1h and <24h, refrigerate at 2 to 8°C. Cary-Blair or equivalent transport media is acceptable.
3. **Rectal swab –** For patients unable to pass a specimen, obtain a rectal swab by carefully inserting a swab 1 inch beyond the anal sphincter. Transport directly to laboratory at room temperature. For transport time >2h and <24h, transport at 4°C.
4. **Blood culture** – Collect appropriate blood volume and number of sets per laboratory protocol. **Note:** In later stages of disease (2-8 days post-exposure), blood cultures may yield the organism, especially if specimens are obtained prior to antibiotic treatment. Transport directly to laboratory at room temperature.
    Note: Whole blood collected in a purple-top tube may be requested for additional tests.
5. **Sputum –** Collect >1 mL of a lower respiratory specimen into a sterile container. Inhalational anthrax usually does not result in sputum formation. Transport in sterile, screw-capped container at room temperature when transport time is <1 h. For transport time >1 h and <24 h, transport at 4°C.
6. **CSF, tissue, autopsy samples** – Collect aseptically and place in sterile containers. Transport directly to laboratory at room temperature.

Brucella species

ACCEPTABLE SPECIMENS: *Environmental/nonclinical samples and samples from announced events are not processed by Sentinel Laboratories. Please contact local law enforcement or the UDOH directly.*

1. **Blood or bone marrow** – These are the sources from which *Brucella* spp. is most often isolated. Standard blood culturing systems. Transport at room temperature.
   Note: Whole blood collected in blue, purple or green top tubes may be requested for additional tests.
2. **Serum** – For serologic diagnosis, an acute phase specimen should be collected as soon as possible after onset of disease. A convalescent phase specimen should be collected >14 days after the acute specimen. Preferably send at least 1 mL, refrigerated.
3. **Spleen, Liver, or abscess** – *Brucella* spp. are occasionally isolated from these sources. Selected media can be used for isolation of *Brucella* spp. from specimens with mixed flora. Specimens should be refrigerated at 2-8° C until inoculation. Tissue must be kept moist. Add several drops of sterile saline if necessary.

Burkholderia mallei and Burkholderia pseudomallei

ACCEPTABLE SPECIMENS: *Environmental/nonclinical samples and samples from announced events are not processed by Sentinel Laboratories. Please contact local law enforcement or the UDOH directly.*

1. **Blood** – Collect blood specimens before antibiotics are administered, when possible. Collect appropriate volume and number of sets per laboratory protocol.
2. **Urine** – Collect a midstream clean-catch specimen or a catheterization specimen.
3. **Abscesses, tissue aspirates, fluids** – Collect tissues and fluids rather than swabs, when possible.
4. **Special situations** – Throat, nasal, skin or sputum specimens may be helpful in screening exposed individuals if a release of *B. mallei* or *B. pseudomallei* has been confirmed.

Clostridium botulinum

ACCEPTABLE SPECIMENS – *Environmental/nonclinical samples and samples from announced events are not processed by Sentinel Laboratories. Please contact local law enforcement or UDOH directly.*

Foodborne Botulism

1. Clinical specimens – serum, gastric contents, vomitus, stool, return from a sterile water enema.
2. Autopsy samples – serum gastric and intestinal contents
3. Food samples and/or empty containers with the remnants of the food

Infant Botulism: Child less than 12 months of age.

1. Feces or return from a sterile water enema.
2. Serum – generally not useful since an infant's body mass is small and the toxin is quickly absorbed.
3. Autopsy samples – intestinal contents from different levels of the small and large intestine.
4. Food and environmental (soil and house dust) as appropriate per the investigation.

Wound Botulism

1. Serum
2. Exudate, tissue or swab samples of wound (transported in anaerobic transport media)
3. Isolate of suspect *Clostridium botulinum* submitted in an anaerobic transport vessel
4. Feces or return from a sterile water enema (wound may not be the source)

Intentional toxin release or Laboratory Accident

1. Serum, Nasal swab
2. Feces or return from a sterile water enema
3. Food
4. Environmental swabs

MATERIALS

1. **Media**: Anaerobic media (chopped meat or equivalent). Follow standard laboratory protocols.
2. Supplies
   a. Port-A-Cul vials or equivalent
   b. Leakproof containers (i.e., sealed plastic bags, plastic containers)
   c. Petroleum jelly or petrolatum or equivalent (i.e., Vaseline)
   d. Sterile, non-bacteriostatic water
   e. Packaging materials

PROCEDURE

1. **Collection**
   a. **Feces:** Place into sterile unbreakable container and label carefully. Confirmatory evidence of botulism may be obtained from 10-50 gram quantities (Walnut size); botulism has been confirmed in infants with only "pea-sized" stool samples. The specimen must be kept cool or refrigerated, do not freeze unless an unavoidable delay of several days is anticipated. Freezing does not affect the ability to detect toxin, but does affect the ability to detect the organism.
   b. **Enema:** Place approximately 20 ml into sterile unbreakable container and label carefully. If an enema must be given because of constipation, a minimal amount of fluid (preferably non-bacteriostatic water) should be used to obtain the specimen so that the toxin will not be unnecessarily diluted. Transport in a Port-A-Cul vial to maintain anaerobiosis. Specimens must be kept cool or refrigerated.
   c. **Gastric aspirate or vomitus:** Place approximately 20 ml into sterile unbreakable container and label carefully. Transport in a Port-A-Cul vial to maintain anaerobiosis. Specimens must be kept cool or refrigerated.
   d. **Serum:** Use red top or separator type tubes to obtain serum (no anticoagulant). Samples should be obtained as soon as possible after the onset of symptoms and before antitoxin is given. Enough blood should be collected to provide at least 10 mL of serum (approximately 20 mL of whole blood). Serum volumes less than 3 ml will provide inconclusive results. Whole blood should not be sent as it typically undergoes excessive hemolysis during transit. Specimen should be kept cool or refrigerated, do not freeze unless an unavoidable delay of several days is anticipated.

e. **Tissue, wounds, or exudates:** Place into sterile unbreakable container and label carefully. Specimens should be placed in Port-A-Cul vials and sent to the appropriate laboratory, preferably without refrigeration, for attempted isolation of *C. botulinum*. Swabs of superficial wounds are not acceptable for anaerobic culture. Maintain specimens at room temperature.
f. **Postmortem:** Obtain specimens of intestinal contents from different levels of small and large intestines. Place approximately 10 grams per specimen into sterile unbreakable container and label carefully. Obtain gastric content, serum and tissue is/as appropriate.
g. **Culture:** Ship suspicious isolates anaerobically (overlay liquid media with 2-inch layer of sterile petroleum jelly; melt/temper prior to overlaying culture). Cultures may be shipped at room temperature or refrigerated.
h. **Food specimens:** Foods should be left in their original containers if possible, or placed in sterile unbreakable containers and labeled carefully. Place containers individually in leakproof containers (i.e., sealed plastic bags) to prevent cross-contamination during shipment. Empty containers with remnants of suspected foods can be examined. Foods most likely to allow growth of *C. botulinum* will have a pH of 3.5-7.0 (usually 5.5-6.5). Possible foods include:
    - Home canned products having a low acidity (pH of 4.6 or greater)
    - Foods with low salt or low sugar content
    - Foods that are held at temperatures that allow the organism to grow (optimal 35°C, but as low as 15°C)
    - Foods that are consumed without prior heating.

    Foods that are commercially processed are rarely incriminated; however, the threat to public health is much greater with a commercial foodstuff. Unopened containers are to be sent to the U.S. Food and Drug administration (FDA), with prior arrangement. Keep the samples cool or refrigerated, do not freeze.
i. **Swab samples:** Send swabs in an anaerobic transport medium (e.g., Port-A-Cul tubes). For aerosolized botulinum toxin exposure, obtain nasal swabs for culture for *C. botulinum*. For toxin testing, serum should be used. Swabs may be shipped at room temperature or refrigerated.

    ****Specimens that are frozen must remain frozen until it is time to perform the test.**

2. Transportation – For complete guidelines, refer to packaging and shipping protocol at http://health.utah.gov/lab.
    a. If an unavoidable delay of several days is anticipated, the specimens (serum or stool) should be kept frozen and then packed in an insulated container with dry ice and proper cushioning material for shipment. Freezing does not affect the ability to detect botulinum toxin in specimens; freezing does reduce the probability of recovering *C. botulinum*. Since direct detection of toxin provides the best laboratory confirmation of botulism, priority should be given to preserving preformed toxin prior to transport.
    b. The receiving laboratory (UPHL) should be notified in advance by telephone as to when and how specimens will be shipped and when they will arrive.

Coxiella burnetii

ACCEPTABLE SPECIMENS Environmental/nonclinical samples and samples from announced events are not processed by Sentinel Laboratories. Please contact local law enforcement or the UDOH directly.

1. **Serum:** Collect serum (red-top or serum separator tube, tiger-top tube) as soon as possible after onset of symptoms (acute phase) and with a follow-up specimen (convalescent phase) at ≥ 14 days for serological testing.
2. Blood: Collect blood in EDTA (lavender) or sodium citrate (blue) Vacutainer tubes and maintain at 4°C for storage and shipping for PCR or special cultures. If possible, collect specimens prior to antimicrobial therapy.
3. **Tissue, body fluids, nasopharyngeal swabs, tracheal/bronchial washings, lesion exudates:** Specimens can be kept at 2-8°C if transported within 24 hours. Store frozen at -70°C or on dry ice.
4. **Bacterial isolates**

Francisella tularensis

ACCEPTABLE SPECIMENS: Environmental/nonclinical samples and samples from announced events are not processed by Sentinel Laboratories. Please contact local law enforcement or the UDOH directly.

Specimens of choice will be determined by the clinical presentation.

1. **Blood Culture (Septicemic) –** Collect appropriate blood volume and number of sets per established laboratory protocols. Standard blood culturing system (10-20ml/bottle). Transport directly to Sentinel Laboratory at room temperature. Hold at room temperature until placed onto the blood culture instrument or incubator. Do not refrigerate. Follow established laboratory protocol for processing blood cultures.
2. **Biopsied tissue or scraping/aspirate of ulcer or lesion –** A swab of the ulcer is an acceptable alternative. Submit tissue, scraping, or aspirate in a sterile container. For small tissue samples, add several drops of sterile normal saline to keep the tissue moist. Transport at room temperature for immediate processing. If processing of specimen is delayed, keep specimen chilled (2-8°C).
3. **Swabs:** Obtain a firm sample of the advancing margin of the lesion. If using a swab transport carrier, the swab should be reinserted into the transport package and the swab fabric moistened with the transport medium inside the packet. Transport at 2-8°C; room temperature is acceptable. If processing of specimen is delayed, keep specimen chilled (2-8°C).
4. **Lower respiratory tract (pneumonic)** s**putum or aspirate** – Transport specimen (>1 ml) in a sterile, screw-capped container at room temperature if transport will be <2 hours. If transport will be 24 hours or less, store and transport at 4°C.
5. **Serum – for serological diagnosis** – An acute phase specimen should be collected as soon as possible after onset of disease. A convalescent phase specimen should be collected 21 days after the acute specimen. Collect blood (a minimum of 5 ml) by venipuncture into a tube without anticoagulant. Allow blood to clot and then separate serum into a separate tube. Refrigerate and transport as soon as possible.

Variola virus

1. **ACCEPTABLE SPECIMENS (for Variola, Vaccinia, Varicella and Non-variola Orthopox) –** Samples are not processed by Sentinel Laboratories. Please contact UDOH directly.

2. **Biopsy** – Aseptically place two to four portions of tissue into a sterile, leakproof, freezable container. If transport time will be ≤6 hours, transport at 4°C. Store specimens at -20°C to -70°C.
3. **Scabs** – Aseptically place scrapings/material into a sterile, leak-proof, freezable container. If transport time will be ≤6 hours, transport at 4°C. Store specimens at -20°C to -70°C.
4. **Vesicular fluid** – Collect fluid from separate lesions onto separate sterile swabs. Be sure to include cellular materials from the base of each respective vesicle. If transport time will be ≤6 hours, transport at 4°C. Store specimens at -20°C to -70°C.

Yersinia pestis

ACCEPTABLE SPECIMENS – Environmental/nonclinical samples and samples from announced events are not processed by Sentinel Laboratories. Please contact local law enforcement or UDOH directly.

Specimens of choice will be determined by the clinical presentation.

1. **Lower respiratory tract (pneumonic)** – Bronchial wash or transtracheal aspirate (≥1 ml). Sputum may be examined but it is not advised because of contamination by normal throat flora. Transport specimens in sterile, screw-capped containers at room temperature to the Sentinel Laboratory. If it is known that material will be transported within 2-24 hours after collection, then store the container and transport at 2-8°C.
2. **Blood (septicemic)** – Collect appropriate blood volume and number of sets per established lab protocol. **Note:** In suspected cases of plague, and additional blood or broth culture (general nutrient broth) should be incubated at room temperature (22-28°C), the temperature at which *Y. pestis* grows faster. Do not shake or rock additional broth culture so that the characteristic growth formation of *Y. pestis* can be clearly visualized. Transport samples directly to the Sentinel Laboratory at ambient temperature. Hold them at ambient temperature until they are placed onto the blood culture instrument or incubator. Do not refrigerate. Follow established laboratory protocol for processing blood cultures.
3. **Aspirate of involved tissue (bubonic) or biopsied specimen** – Liver, spleen, bone marrow, lung. **Note:** Aspirates may yield little material; therefore, a sterile saline flush may be needed to obtain an adequate amount of specimen. Syringe and needle of aspirated sample should be capped, secured by tape, and sent to the Sentinel Laboratory. Submit tissue or aspirate in a sterile container. For small samples, add 1-2 drops of sterile normal saline to keep the tissue moist. Transport the sample at room temperature for immediate processing. Keep the specimen chilled if processing of the specimen will be delayed.
4. **Swabs** – A swab of tissue is not recommended. However, if a swab specimen is taken, the swab should be reinserted into the transport package for transport.

Appendix B: Test List (alphabetical by organism)

Test	Page
Acid fast bacillus	
Stain (AFB smear)	34
Culture and susceptibility	35
Adenovirus (respiratory panel)	45
Bacillus anthracis (Anthrax)	10
Bacterial pathogens in food (limited to outbreak detection)	5
Bordetella pertussis	
PCR Referral	30
Respiratory panel	45
Botulism	
Detection	13
Toxin	13
Brucella species (Brucellosis)	11
Burkholderia: mallei and *pseudomallei*	12
Chlamydophila pneumoniae (respiratory panel)	45
Chlamydia trachomatis	38
Clostridium botulinum - Bioterrorism	13
Coronavirus (respiratory panel)	45
Coxiella burnetii (Q-fever)	14
Cytomegalovirus	41
Escherichia coli (EIA)	7
Escherichia coli serotyping (shiga-toxin producing)	6
Enteroviruses	41
Francisella tularensis (Tularemia)	16
Haemophilus influenza serotyping	6
Hantavirus	22
Hepatitis B virus	3
Hepatitis C virus	3
Herpes simplex virus	43
Human immunodeficiency virus (HIV)	
Ag/Ab Combo Screening Test	24
1/2 Multi-spot Rapid Test	25
Human metapneumovirus (respiratory panel)	45
Human papillomavirus (HPV)	39
Influenza virus	
Respiratory panel	45
A/B Typing/ A subtyping/ B genotyping PCR	42
Legionella	6
Middle Eastern Respiratory Syndrome Coronavirus (MERS-CoV)	17
Mycobacterium tuberculosis complex	36
Mycoplasma pneumoniae (respiratory panel)	45

Neiserria gonorrhea (GC)
- Culture confirmation 8
- Amplified (NAAT) 38

Neiserria meningitidis 8
Norovirus PCR 31
Orthopox viruses 18
Parainfluenza virus type 1, 2, 3, 4 (respiratory panel) 45
Quantiferon (Tuberculosis) 29
Rabies (only animal specimens accepted) 44
Respiratory Syncytial Virus (RSV) (respiratory panel) 45
Rhinovirus/Enterovirus (respiratory panel) 45
Ricin toxin 19
Salmonella serotyping 6
Shigella serotyping 6
Smallpox (Variola virus) 20
Stool culture for bacterial pathogens 9
St. Louis Encephalitis Virus 33
Syphilis
- IgG 26
- RPR 27
- *Treponema pallidum* agglutination (TP-PA) 28

Trichomonas vaginalis 40
Tuberculosis (Quantiferon) 29
Varicella zoster (chicken pox) 43
Variola virus (Smallpox) 20
Viral culture 41
Western Equine Encephalitis Virus 33
West Nile Virus
- IgM 32
- PCR 33

Yersinia pestis (Plague) 21

Appendix C: Test Request Forms

Infectious Disease Test Request Form

Rabies Test Request Form

COSC Specimen Submittal Form

BT Environmental Specimen Form

INFECTIOUS DISEASE TEST REQUEST FORM

UTAH PUBLIC HEALTH LABORATORY 4431 SOUTH 2700 WEST TAYLORSVILLE, UTAH 84129 TELEPHONE: (801) 965-2400 FAX: (801) 965-2551 http://health.utah.gov/lab/infectious-diseases	FOR UPHL USE ONLY LAB# DATE STAMP

PLEASE PRINT CLEARLY AND FILL OUT AS COMPLETELY AS POSSIBLE.

PATIENT INFORMATION:

PATIENT STATE OF RESIDENCE:	PATIENT COUNTY OF RESIDENCE:	ZIP CODE:	DATE OF BIRTH (mm/dd/yyy	AGE	SEX
			_____/_____/_____		M F

PATIENT NAME (Last, First):	Is Patient Insured? [ ] Yes [ ] No If Yes, will insurance be billed? [ ] Yes [ ] No	STI TESTING ONLY: Is patient MSM [ ] Yes [ ] No

PATIENT ID #	ETHNICITY	RACE
	[ ] Hispanic [ ] Non-Hispanic	[ ] White [ ] Black or African American [ ] American Indian or Alaska Native [ ] Asian [ ] Native Hawaiian or other Pacific Islander

PROVIDER INFORMATION		SPECIMEN COLLECTION DATE AND TIME
Provider Code: **BRHL8**	Physician: _____ Provider Phone: _____ Provider Email: _____ Secure Fax #: _____	(mm/dd/yy) _____/_____/_____ Time: _____

SPECIMEN SOURCE/SITE (CHOOSE 1):

[ ] Blood	[ ] Environmental (specify):_____	[ ] Plasma	[ ] Urethra
[ ] Body Fluid (specify):_____	[ ] Food (specify):_____	[ ] Rectum	[ ] Urine
[ ] Bronchoalveolar lavage	[ ] Isolate (source):_____	[ ] Serum	[ ] Vagina
[ ] Bronchial aspirate/wash	[ ] Lesion (site):_____	[ ] Sputum (natural / induced)	[ ] Vomitus
[ ] Cerebrospinal Fluid	[ ] Liquid Pap	[ ] Stool	[ ] Wound/Abscess
[ ] Cervix	[ ] Nasal (aspirate /swab / wash)	[ ] Throat swab	[ ] Other (specify): _____
[ ] (Endo)tracheal aspirate/wash	[ ] Nasopharyngeal swab	[ ] Tissue (specify):_____	

BACTERIOLOGY/TUBERCULOSIS TESTS

Bacteriology Specimen

REQUIRED Shipping Temperature:_____

[ ] Bacterial Culture

[ ] Bacterial ID / Referral

Presumptive ID:_____

[ ] Mycobacterial culture

[ ] Mycobacterial referral

Presumptive ID:_____

[ ] Other (specify): _____

BIOTERRORISM TESTS

(Notify Lab before submitting)

[ ] Bacillus anthracis (Detection/ID)

[ ] Brucella species (Detection/ID)

[ ] Brucella antibody

[ ] Burkholderia mallei/pseudomallei (Detection/

[ ] Clostridium botulinum culture & toxin

[ ] Coxiella burnetii (Detection)

[ ] Francisella tularensis (Detection/Identificatio

[ ] F. tularensis antibody

[ ] Orthopox viruses Detection

Virus Suspected:

[ ] Vaccinia virus

[ ] Varicella zoster virus

[ ] Variola virus

[ ] Yersinia pestis (Detection/Identification)

[ ] Yersinia pestis antibody

[ ] Other (specify): _____

VIROLOGY AND IMMUNOLOGY TESTS

Aptima NAAT

[ ] C. trachomatis and N. gonorrhea by NAAT

[ ] Patient is partner of a 15-24 year old female

[ ] Human papillomavirus (HPV) by NAAT

[ ] Trichomonas vaginalis by NAAT

Virus Identification

[ ] Respiratory Panel (FilmArray)

(Adenovirus, Coronavirus (229E, HKU1, NL63, OC43), Human Metapneumovirus, Rhino/Enterovirus, Influenza A, Influenza B, Parainfluenza 1-4, RSV, Bordetella pertussis, C. pneumoniae, M. pneumoniae)

[ ] Herpes Simplex/Varicella zoster PCR

(HSV-1, HSV-2, VZV)

[ ] Other virus (general culture)

Virus suspected _____

Influenza Surveillance

[ ] Influenza A & B virus PCR (with subtyping)

[ ] Hospitalized w/ Influenza-like illness

[ ] Other (i.e., cluster investigation)

Cluster location: _____

Other reason for testing: _____

[ ] QuantiFERON-TB Gold

REQUIRED information:

Blood draw date/time:_____

Incubation at 37°C completed? [ ] Yes [ ] No

Signature:_____

Incubation starte date/time:_____

Incubation end date/time:_____

[ ] Syphilis IgG EIA (includes confirmatory testing)

[ ] RPR (suspect acute infection/previous positive)

[ ] HIV Antigen/Antibody (includes confirm. testing)

[ ] Previous positive

[ ] Hepatitis C Antibody

[ ] Add HCV RNA Testing if Positive

[ ] Hepatitis C RNA

(Qualitative; Antibody screen not included)

[ ] Hepatitis B Antibody

[ ] Hepatitis B Antigen

[ ] Hantavirus (Sin Nombre) IgG/IgM

[ ] Acute Serum (mm/dd/yy)_____/_____/_____

[ ] Convalescent serum (mm/dd/yy)_____/_____/___

[ ] West Nile virus IgM (Human)

ADDITIONAL INFORMATION

[ ] Other Disease Suspected: _____ [ ] Referral Test (additional form(s) **REQUIRED**) specify:_____

*Contact UPHL for additional form(s)

COMMENTS:

Rabies Testing Request Form

Utah Public Health Laboratory

4431 S 2700 W Taylorsville, UT 84129
Telephone: (801) 965-2584 Fax: (801) 965-2551

Lab #

Date Stamp:

PLEASE PRINT DO NOT ABBREVIATE

1. PROVIDER/SENDER INFORMATION		**2. OWNER INFORMATION (or reponsible party)**
		Name
Address: No./Street/Apt.#		Address: No./Street/Apt.#
Provider Code	City/Town	City/Town
	Phone Number: ( )	Phone Number: ( )

3. SPECIMEN INFORMATION [ ] Pet [ ] Stray [ ] Wild [ ] Unknown

Species & Breed	Was Animal Quarantined? [ ] Yes [ ] No If Yes, how many days? _____ [ ] Died in Quarantine	Cause of Death: [ ] Natural Date:_____ [ ] Euthanized
Reason for Rabies Testing: [ ] Human Exposure [ ] Pet Exposure [ ] Acting Sick	**Symptoms:** _____ _____ _____ _____	**Animal Vaccination History:** [ ]Rabies Vaccinated on (__/__/__) [ ]Not Rabies Vaccinated [ ]Unknown

4. EXPOSURE INFORMATION

Person(s) Exposed Exposure Date ____ /____ /____		**Animal(s) Exposed** Exposure Date ____ /____ /____	
Name		Name	
Address: No./Street/Apt.#		Species Age	
City/Town State Zip Code		Address: No./Street/Apt.#	
Phone # ( )		City/Town State Zip Code	
Physician Name	Physician Phone # ( )		
Type of Exposure: [ ] Bite [ ] Scratch [ ] Lick [ ] Other _____ [ ] Unknown	Body Site Severity	**Type of Exposure:** [ ] Bite [ ] Scratch [ ] Lick [ ] Other _____ [ ] Unknown	Body Site Severity
Circumstance of Exposure: (Check One)	**[ ] Capture [ ] Specimen Prep** **[ ] Handling [ ] Other** **[ ] Provoked Attack** **[ ] Unprovoked Attack**	**Circumstance of Exposure: (Check One)**	**[ ] Fight** **[ ] Vicinity** **[ ] Dead Animal Contact** **[ ] Other _____**

Heads must be removed from any animals larger than a gopher. **DO NOT** send live animals with the exception of bats. (Container must be labeled "Live Bat"). Heads must be wrapped in newspaper, then placed in plastic bag. If shipping is necessary, please put plastic bag containing head in a leakproof container packed on wet ice. **DO NOT** send by U.S. Mail except by special delivery. Samples that do not meet the guidelines set forth by the National Compendium of Animal Rabies (http://www.cdc.gov/mmwr/pdf/rr/rr6006.pdf) or with incomplete paperwork may be subjected to a $15 fee.

5. RABIES DIRECT FLUORESCENT ANTIBODY TEST RESULTS L **Reported By:_____ Date ___/___/___**

[ ] Positive (Rabid) **[ ] Negative (Not Rabid)** **[ ] Specimen Unsatisfactory**

Comments_____

Utah Public Health Laboratory

4431 South 2700 West
Taylorsville, UT 84129

BT Specimen Submission Form: Environmental Threat

UPHL Tracking Number

SPECIMEN SCREENING INFORMATION

SAMPLE SCREENED BY: **Technician Name(s)** _____ **Organization(s)** _____

INCIDENT IDENTIFIER **Address** _____ **Telephone(s)** _____

Specimen was screened for: (Check any applicable boxes and write additional information if the box is checked)

☐ **RADIATION**
Screening method(s): _____
Background reading: _____
Sample reading (units): _____

☐ **EXPLOSIVES**
Screening method(s): _____
Sample results: _____

☐ **CHEMICALS**
Screening method(s): _____
☐ **Oxidizers** **Sample results:** _____
☐ **Corrosives** **Sample results:** _____
☐ **Flammability** **Sample results:** _____
☐ **Volatile Organic Compounds** **Sample results:** _____

Chain-of-Custody

From: _____ To: _____ Date & Time: _____

From: _____ To: _____ Date & Time: _____

From: _____ To: _____ Date & Time: _____

From: _____ To: _____ Date & Time: _____

Utah Public Health Laboratory does not accept explosive, incendiary, or radioactive materials.
Call the 24/7 Laboratory BT Emergency Cell phone at 801-560-6586 with questions.

Additional comments about incident or sample:

Version 05/01/2014