Idaho Department of Health and Welfare
Division of Public Health

Idaho Bureau of Laboratories

Sampling
and
Submission Guide

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Purpose of the Idaho Bureau of Laboratories Sampling and Submission Guide

Purpose:

The purpose of this guide is to provide general information about the Idaho Bureau of Laboratories (IBL) and information to assist with obtaining and submitting samples to IBL.

IBL maintains strict guidelines regarding receipt and processing of samples. Before submitting a sample, it is highly recommended that you consult this **Sampling and Submission Guide**. This guide provides information on specimen collection techniques and procedures for safe packaging of your samples for transport. Samples must be received in the appropriate packaging for the testing process to be successful. There are also federal guidelines related to the containment and transport of certain types of samples.

In addition, samples must be accompanied by the proper submission form for the test requested. Links to commonly used sample submission forms are found in this document and at the state IBL web site at: www.statelab.idaho.gov.

Idaho Bureau of Laboratories

The primary role of the Idaho Bureau of Laboratories (IBL) is to provide laboratory services to support the programs within the Department of Health and Welfare, those delegated to the seven Public Health District Departments, and other state agencies, such as Idaho Department of Environmental Quality, Idaho State Police, and the Idaho Bureau of Homeland Security Hazardous Materials Section. In addition, IBL supports clinical and environmental laboratories, physicians, and the citizens of Idaho.

The laboratory is equipped with state of the art instrumentation and is accredited through the Centers for Medicare and Medicaid Services as a high complexity clinical laboratory, and is certified for drinking water analysis by the Environmental Protection Agency.

The Bureau offers a broad range of services in four general categories:

1. Testing
    a. Communicable disease agents in clinical specimens
    b. Contaminants or adulterants in water, food, and soils
    c. Biological and chemical threats
2. Inspection
    a. Clinical and environmental laboratories
    b. X-ray and mammography units
    c. Air quality monitoring stations
3. Training
    a. Multi-agency technical consultation and work-force development
    b. Continuing medical education seminars and telelectures
    c. Formal presentations at local, regional, and national conferences, meetings, workshops, and universities
4. Outreach
    a. Maintenance of a public-private Idaho Laboratory Response Network
    b. Development and validation of new analytical methods
    c. Publication and presentation of applied public health research

Idaho Bureau of Laboratories Contact Information

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Analytical Methods in Clinical Microbiology, Virology, and Serology

IBL Submission Forms Available at www.statelab.idaho.gov

ALPHABETICAL BY AGENT

ACID FAST BACILLI (AFB)
SEE: *MYCOBACTERIUM* SPP.

ADENOVIRUS, RESPIRATORY
DETECTION IN CLINICAL SAMPLES

METHODOLOGY: CULTURE ISOLATION/IDENTIFICATION

RESTRICTIONS:	None
CPT CODE:	87252 (culture), 87253 (ID)
SPECIMEN:	Nasopharyngeal, nasal, or throat swab in viral transport medium, nasal wash or aspirate (1ml) Bronchoalveolar lavage, pleural fluid, tracheal aspirate (>1 ml) Ocular swab in viral transport medium
COMMENTS:	Dry swab, wood swab, and calcium alginate swabs not acceptable
SHIPPING:	Ship at refrigeration temperature.
TURNAROUND:	14 days for negative

AEROMONAS SPP.
DETECTION IN STOOL

METHODOLOGY: CULTURE

RESTRICTIONS:	Done for investigation of foodborne illness only. Contact your local health district before requesting this test.
CPT CODE:	87046
SPECIMEN:	Stool in ParaPak C&S, Modified Carey-Blair or equivalent - fill to line (approximately 5 ml). Unpreserved stool samples must be received within 2 hours of collection.
SHIPPING:	Ship preserved samples at room temperature. Transport fresh samples at refrigeration temperature.
TURNAROUND:	Within 4-6 working days

AEROMONAS SPP.
IDENTIFICATION/CONFIRMATION OF REFERRED ISOLATE

METHODOLOGY: BIOCHEMICAL TESTING

RESTRICTIONS:	None
CPT CODE:	87077
SPECIMEN:	Actively growing pure culture on suitable medium
SHIPPING:	Ship at room temperature.
TURNAROUND:	Not available

AFRICAN TRYPANOSOMIASIS
SEE: *TRYPANOSOMA BRUCEI* SPP.

AMEBIASIS
SEE: *ENTAMOEBA HISTOLYTICA*

AMERICAN TRYPANOSOMIASIS
SEE: *TRYPANOSOMA CRUZI*

ANCYLOSTOMA SPP. (CUTANEOUS LARVA MIGRANS) DETECTION IN CLINICAL SAMPLES/REFERRED SPECIMEN

METHODOLOGY: ANTIBODY DETECTION

RESTRICTIONS:	None
CPT CODE:	Not applicable
SPECIMEN:	Serum
SHIPPING:	Ship refrigerated
TURNAROUND:	Referred to Centers for Disease Control and Prevention, turnaround time not available

ANTHRAX

SEE: *BACILLUS ANTHRACIS*

ANTIMICROBIAL SUSCEPTIBILITY TESTING

METHODOLOGY: E-TEST OR BROTH MICRODILUTION METHODS

RESTRICTIONS:	Susceptibility testing is done for surveillance purposes on reportable disease agents. Check individual agents, or call the laboratory at 208-334-2235 ext 295 for special circumstances.
CPT CODE:	87181 (E-test), 87186 (Microdilution)
SPECIMEN:	Actively growing pure culture on suitable medium
SHIPPING:	Ship at room temperature
TURNAROUND:	2-3 days
COMMENTS:	Refer suspected vancomycin intermediate or resistant *Staphylococcus aureus* (VISA, VRSA) for confirmatory testing.

ARBOVIRUS PCR PANEL

METHODOLOGY: RT-PCR

Tests Included in Panel:	West Nile Virus (WNV), Saint Louis Encephalitis Virus, Western Equine Encephalitis Virus
RESTRICTIONS:	Contact your local health department, or Fish and Game office before requesting this test.
CPT CODE:	Not applicable
SPECIMEN:	Mosquito Pools Birds: corvids and raptors only (WNV only) - oral swabs from corvids, tissue from raptors
SHIPPING:	Ship at refrigeration temperature.
TURNAROUND:	Not available

ARBOVIRUS IgM AND IgG ANTIBODY DETECTION

METHODOLOGY: ENZYME IMMUNOASSAY WITH REFLEX TO MIA AND PRNT FOR CONFIRMATION

Tests Included in Panel:	West Nile Virus (WNV) and Saint Louis Encephalitis Antibody WNV serology tests may be requested separately from the rest of the panel. See entry for West Nile Virus Antibody Detection.
RESTRICTIONS:	None
CPT CODE:	86788 (WNV IgG), 86789 (WNV IgM)
SPECIMEN:	Serum, preferred (1 ml) CSF, only IgM performed (1 ml)
SHIPPING:	Ship at refrigeration temperature.
TURNAROUND:	1-3 days

BABESIA SPP.

DETECTION, IDENTIFICATION, OR CONFIRMATION BY MICROSCOPY

SEE: PARASITE EXAMINATION, BLOOD; PARASITE IDENTIFICATION, BLOOD

BACILLUS ANTHRACIS
DETECTION IN CLINICAL SAMPLES

METHODOLOGY: CULTURE, BIOCHEMICAL TESTING, AND LABORATORY RESPONSE NETWORK PROTOCOLS

Tests May Include: Biochemical, molecular, and immunological methods
RESTRICTIONS: Contact laboratory at (208)334-2235 ext 252 before requesting this test.
CPT CODE: 87081
SPECIMEN: See Appendix A
SHIPPING: Ship at refrigeration temperature.
TURNAROUND: 2-3 days
This disease must be reported to your local Health District or to the state Office of Epidemiology, Food Protection and Immunization according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

BACILLUS ANTHRACIS
IDENTIFICATION/CONFIRMATION OF REFERRED ISOLATE

METHODOLOGY: BIOCHEMICAL TESTING AND LABORATORY RESPONSE NETWORK PROTOCOLS

Tests May Include: Biochemical, molecular, and immunological methods
RESTRICTIONS: Contact laboratory at (208)334-2235 ext 252 or 257 before sending isolate.
CPT CODE: 87077
SPECIMEN: Actively growing pure culture on suitable medium
SHIPPING: Ship at room temperature.
TURNAROUND: Within 1-2 days
This disease must be reported to your local Health District or to the state Office of Epidemiology, Food Protection and Immunization according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)
Note: This organism has been designated as a Select Agent (Select Agent Regulation, 42 CFR, 73, Interim Final Rule). Special handling criteria apply. Please contact the laboratory for special instructions.

BACILLUS ANTHRACIS
ISOLATION FROM ENVIRONMENTAL SAMPLES

RESTRICTIONS: Contact local law enforcement or State Communications (208)846-7610 or (800)632-8000 before requesting this test.
TURNAROUND: Not available

BACILLUS CEREUS
DETECTION IN STOOL OR IMPLICATED FOOD

METHODOLOGY: CULTURE

RESTRICTIONS: Done for investigation of foodborne illness only. Contact your local health district or the state Office of Epidemiology, Food Protection and Immunization (208)334-5939 before requesting this test.
CPT CODE: 87046
SPECIMEN: Stool in ParaPak C&S, Modified Carey-Blair or equivalent - fill to line (approximately 5 ml)
Implicated food - minimum of 10 g in original container or transferred to sterile container using sterile instruments.
SHIPPING: Ship stool at room temperature, food at refrigeration temperature

TURNAROUND: Within 4 working days

BACILLUS CEREUS
DETECTION OF DIARRHEAL TYPE ENTEROTOXIN IN FOOD

METHODOLOGY: REVERSED PASSIVE LATEX AGGLUTINATION

RESTRICTIONS: Done for investigation of foodborne illness only. Contact your local health district or the state Office of Epidemiology, Food Protection and Immunization (208)334-5939 before requesting this test.
CPT CODE: Not applicable
SPECIMEN: Implicated food - minimum of 10 g in original container or transferred to sterile container using sterile instruments.
SHIPPING: Ship at refrigeration temperature
TURNAROUND: Within 1 working day

BACILLUS CEREUS
IDENTIFICATION/CONFIRMATION OF REFERRED ISOLATE

METHODOLOGY: BIOCHEMICAL TESTING, TOXIN TESTING

RESTRICTIONS: There is no restriction on confirmation/identification of referred isolate. Toxin testing is performed only for investigation of foodborne illness. Contact your local health district or the state Office of Epidemiology, Food Protection and Immunization (208)334-5939 before requesting this test.
CPT CODE: 87077
SPECIMEN: Actively growing pure culture on suitable medium
SHIPPING: Ship at room temperature
TURNAROUND: Within 5 working days

BACTERIA, AEROBIC IDENTIFICATION

METHODOLOGY: BIOCHEMICAL TESTING, TYPING OR GROUPING IF APPROPRIATE, SEQUENCING OF 16S RIBOSOMAL DNA IF INDICATED

RESTRICTIONS: None
CPT CODE: 87070 (culture, presumptive ID), 87077 (additional ID), 87158 (16S)
SPECIMEN: Actively growing pure culture on suitable medium
SHIPPING: Ship at room temperature
TURNAROUND: Not available

BACTERIA, ANAEROBIC IDENTIFICATION
SEE ALSO: *CLOSTRIDIUM BOTULINUM*, *CLOSTRIDIUM PERFRINGENS*

METHODOLOGY: BIOCHEMICAL TESTING, TYPING OR GROUPING IF APPROPRIATE, SEQUENCING OF 16S RIBOSOMAL DNA IF INDICATED

RESTRICTIONS: None
CPT CODE: 87075 (culture, presumptive ID), 87076 (additional ID), 87158 (16S)
SPECIMEN: Actively growing pure culture on suitable medium
SHIPPING: Ship at room temperature in anaerobic transport environment
TURNAROUND: Not available

BACTERIAL MENINGITIS
SEE: INDIVIDUAL AGENTS

BETA HEMOLYTIC *STREPTOCOCCUS*
SEE: *STREPTOCOCCUS*

BORDETELLA PERTUSSIS, DETECTION IN CLINICAL SAMPLES

METHODOLOGY: CULTURE

CPT CODE: 87081 (culture ID)
SPECIMEN: Nasopharyngeal swab in Regan-Lowe transport media or nasopharyngeal aspirate; calcium alginate, polyester, or Dacron swabs are recommended.
SHIPPING: Ship at ambient temperature if ≤3 days from collection or refrigeration temperature if > 3 days from collection
TURNAROUND: Negative reports issued after 10 days of incubation
COMMENTS: Do not use cotton swab as they are toxic to *B. pertussis*
This disease must be reported to your local Health District or to the state Office of Epidemiology, Food Protection and Immunization according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

BORDETELLA PERTUSSIS
DETECTION OF DNA IN CLINICAL SAMPLES

METHODOLOGY: PCR

RESTRICTIONS: Contact your local Health District before requesting this test
CPT CODE: 87798
SPECIMEN: Collection kits available from laboratory. To order kits, fax or e-mail completed IBL Supply Request Form. Form is located at www.statelab.idaho.gov . The form can also be obtained by calling 208-334-2235 ext. 226.
Nasopharyngeal swab or nasal aspirate in a sterile tube (no calcium alginate), Nasal wash (0.5 ml).
SHIPPING: Ship at refrigeration temperature.
TURNAROUND: 48-72 hours from receipt of specimen
COMMENTS: The performance characteristics of this assay have been verified in accordance with FDA requirements.
This disease must be reported to your local Health District or to the state Office of Epidemiology, Food Protection and Immunization according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

BORDETELLA PERTUSSIS
IDENTIFICATION/CONFIRMATION OF REFERRED ISOLATE

METHODOLOGY: MICROSCOPIC MORPHOLOGY, IMMUNOFLUORESCENCE, BIOCHEMICAL TESTING, PCR

RESTRICTIONS: None
CPT CODE: 87077(ID), 87265 (FA), 87798 (PCR)
SPECIMEN: Actively growing pure culture on suitable medium
SHIPPING: Ship at room temperature.
TURNAROUND: 1-2 days
This disease must be reported to your local Health District or to the state Office of Epidemiology, Food Protection and Immunization according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

BORDETELLA PERTUSSIS
MOLECULAR SUBTYPING
SEE: PULSED-FIELD GEL ELECTROPHORESIS

BOTULISM/BOTULINUM TOXIN
SEE: *CLOSTRIDIUM BOTULINUM*

BRUCELLA SPP

DETECTION IN CLINICAL SAMPLES

METHODOLOGY: CULTURE AND LABORATORY RESPONSE NETWORK PROTOCOLS

Tests May Include: Biochemical, molecular, and immunological methods
RESTRICTIONS: Contact laboratory at (208)334-2235 ext 252 or 257 before sending isolate.
CPT CODE: 87081
SPECIMEN: See Appendix B
SHIPPING: Ship at refrigeration temperature.
TURNAROUND: Negative results available after 7-21 days of incubation
This disease must be reported to your local Health District or to the state Office of Epidemiology, Food Protection and Immunization according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

BRUCELLA SPP
IDENTIFICATION/CONFIRMATION OF REFERRED ISOLATE

METHODOLOGY: BIOCHEMICAL TESTING AND LABORATORY RESPONSE NETWORK PROTOCOLS

Tests May Include: Biochemical, molecular, and immunological methods
RESTRICTIONS: Contact laboratory at (208)334-2235 ext 252 or 257 before requesting this test.
CPT CODE: 87077
SPECIMEN: Actively growing pure culture on suitable medium
SHIPPING: Ship at room temperature.
TURNAROUND: Within 1 week
This disease must be reported to your local Health District or to the state Office of Epidemiology, Food Protection and Immunization according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)
Note: B. abortus, melitensis, and suis have been designated as Select Agents (Select Agent Regulation, 42 CFR, 73, Interim Final Rule). Special handling criteria apply. Please contact the laboratory for special instructions.

BRUCELLA SPP.
ANTIBODY DETECTION

RESTRICTIONS: Contact laboratory at (208) 334-2235 before requesting this test.
CPT CODE: 87077
SPECIMEN: Serum (2 ml)
SHIPPING: Ship at refrigeration temperature.
TURNAROUND: Not available
COMMENTS: Referred to Centers of Disease Control and Prevention
This disease must be reported to your local Health District or to the state Office of Epidemiology, Food Protection and Immunization according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

BUBONIC PLAGUE
SEE: *YERSINIA PESTIS*

BURKHOLDERIA MALLEI
DETECTION IN CLINICAL SAMPLES

METHODOLOGY: CULTURE, BIOCHEMICAL TESTING AND LABORATORY RESPONSE NETWORK PROTOCOLS

Tests May Include: Biochemical, molecular, and immunological methods
RESTRICTIONS: Contact laboratory at (208)334-2235 ext 252 or 257 before requesting this test.
CPT CODE: 87081
SPECIMEN: See Appendix C
SHIPPING: Ship at refrigeration temperature.
TURNAROUND: 4-7 days

BURKHOLDERIA MALLEI
IDENTIFICATION/CONFIRMATION OF REFERRED ISOLATE

METHODOLOGY: BIOCHEMICAL TESTING AND LABORATORY RESPONSE NETWORK PROTOCOLS

Tests May Include: Biochemical, molecular, and immunological methods
RESTRICTIONS: Contact laboratory at (208) 334-2235 before sending isolate.
CPT CODE: 87077
SPECIMEN: Actively growing culture on suitable medium
SHIPPING: Ship at room temperature.
TURNAROUND: 4 working days
This disease must be reported to your local Health District or to the state Office of Epidemiology, Food Protection and Immunization according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)
Note: This organism has been designated as a Select Agent (Select Agent Regulation, 42 CFR, 73, Interim Final Rule). Special handling criteria apply. Please contact the laboratory for special instructions.

BURKHOLDERIA PSEUDOMALLEI
DETECTION IN CLINICAL SAMPLES

METHODOLOGY: CULTURE, BIOCHEMICAL TESTING AND LABORATORY RESPONSE NETWORK PROTOCOLS

Tests May Include: Biochemical, molecular, and immunological methods
RESTRICTIONS: Contact laboratory at (208) 334-2235 before requesting this test.
CPT CODE: 87081
SPECIMEN: See Appendix C
SHIPPING: Ship at refrigeration temperature.
TURNAROUND: 4-7 days

BURKHOLDERIA PSEUDOMALLEI
IDENTIFICATION/CONFIRMATION OF REFERRED ISOLATE

METHODOLOGY: BIOCHEMICAL TESTING AND LABORATORY RESPONSE NETWORK PROTOCOLS

Tests May Include: Biochemical, molecular, and immunological methods
RESTRICTIONS: Contact laboratory at (208) 334-2235 before sending isolate.
CPT CODE: 87077
SPECIMEN: Actively growing culture on suitable medium
SHIPPING: Ship at room temperature.
TURNAROUND: 4 working days
This disease must be reported to your local Health District or to the state Office of Epidemiology, Food Protection and Immunization according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)
Note: This organism has been designated as a Select Agent (Select Agent Regulation, 42 CFR, 73, Interim Final Rule). Special handling criteria apply. Please contact the laboratory for special instructions.

CALICIVIRUS
SEE: NOROVIRUS

CAMPYLOBACTER SPP.
DETECTION IN CLINICAL SAMPLES

METHODOLOGY: CULTURE

RESTRICTIONS: None
CPT CODE: 87046
SPECIMEN: Stool in ParaPak C&S, Modified Carey-Blair or equivalent - fill to line (approximately 5 ml)
Unpreserved stool samples must be received within 2 hours of collection.
SHIPPING: Ship preserved samples at room temperature. Transport fresh samples at refrigeration temperature.
TURNAROUND: Negative results available within 2-4 working days
COMMENTS: Included in routine Enteric Bacterial Culture
This disease must be reported to your local Health District or to the state Office of Epidemiology, Food Protection and Immunization according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

CAMPYLOBACTER SPP.
IDENTIFICATION/CONFIRMATION OF REFERRED ISOLATE

METHODOLOGY: BIOCHEMICAL TESTING, SEQUENCING OF 16S RIBOSOMAL DNA IF INDICATED

RESTRICTIONS: None
CPT CODE: 87077 (culture), 87158 (sequence analysis)
SPECIMEN: Actively growing pure culture on suitable medium
SHIPPING: Ship at room temperature in microaerophilic transport environment
TURNAROUND: Identification from pure culture available in 4-6 working days
This disease must be reported to your local Health District or to the state Office of Epidemiology, Food Protection and Immunization according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

CAMPYLOBACTER SPP.
MOLECULAR SUBTYPING
SEE: PULSED-FIELD GEL ELECTROPHORESIS

CHAGAS DISEASE
SEE: *TRYPANOSOMA CRUZI*

CHANCHROID
SEE: *HAEMOPHILUS DUCREYI*

CHANCRE
SEE: *TREPONEMA PALLIDUM*

CHICKEN POX
SEE: VARICELLA ZOSTER VIRUS

CHLAMYDIA TRACHOMATIS
NUCLEIC ACID DETECTION

METHODOLOGY: NUCLEIC ACID AMPLIFICATION

RESTRICTIONS: None
CPT CODE: 87801
SPECIMEN: Endocervical. male urethral, vaginal, pharyngeal, or rectal swab, urine. Collected in appropriate Gen-Probe APTIMA Collection kits)
SHIPPING: Ship at room temperature.
TURNAROUND: Routinely tested each working day.

COMMENTS: This method is not recommended for medico legal cases and is not acceptable for throat or rectal swabs. Only culture procedures are recommended for these situations.

This disease must be reported to your local Health District or to the state Office of Epidemiology, Food Protection and Immunization according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

CHOLERA

SEE: *VIBRIO* SPP.

CLOSTRIDIUM BOTULINUM
DETECTION IN CLINICAL AND ENVIRONMENTAL SAMPLES AND FOOD

METHODOLOGY: CULTURE

RESTRICTIONS: Contact your local health district or the state Office of Epidemiology, Food Protection and Immunization at (208)334-5939 for approval before requesting this test.
CPT CODE: 87075 (Clinical)
SPECIMEN: See Appendix D
SHIPPING: See Appendix D
COMMENTS: Sent to Washington State Dept of Health Laboratory for toxin testing
TURNAROUND: Within 14 days of specimen receipt

This disease must be reported to your local Health District or to the state Office of Epidemiology, Food Protection and Immunization according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)
Note: This organism has been designated as a Select Agent (Select Agent Regulation, 42 CFR, 73, Interim Final Rule). Special handling criteria apply. Please contact the laboratory for special instructions.

CLOSTRIDIUM BOTULINUM
IDENTIFICATION/CONFIRMATION OF REFERRED ISOLATE

METHODOLOGY: BIOCHEMICAL TESTING, TOXIN TESTING

RESTRICTIONS: Contact your local health district or the state Office of Epidemiology, Food Protection and Immunization at (208)334-5939 for approval before requesting this test.
CPT CODE: 87076
SPECIMEN: Actively growing pure culture on suitable medium
SHIPPING: Ship at room temperature
COMMENTS: Sent to Washington State Dept of Health Laboratory for toxin testing
TURNAROUND: 4 hours to 14 days

This disease must be reported to your local Health District or to the state Office of Epidemiology, Food Protection and Immunization according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)
Note: This organism has been designated as a Select Agent (Select Agent Regulation, 42 CFR, 73, Interim Final Rule). Special handling criteria apply. Please contact the laboratory for special instructions.

CLOSTRIDIUM BOTULINUM TOXIN
DETECTION IN CLINICAL AND ENVIRONMENTAL SAMPLES AND FOOD

METHODOLOGY: TOXIN NEUTRALIZATION ASSAY

RESTRICTIONS: Contact your local health district or the state Office of Epidemiology, Food Protection, and Immunization at (208)334-5939 for approval before requesting this test.
CPT CODE:
SPECIMEN: See Appendix D
SHIPPING: See Appendix D
COMMENTS: Sent to Washington State Dept of Health Laboratory for toxin testing
TURNAROUND: Within 4-72 hours

This disease must be reported to your local Health District or to the state Office of Epidemiology, Food Protection and Immunization according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

CLOSTRIDIUM PERFRINGENS
DETECTION IN STOOL OR IMPLICATED FOOD

METHODOLOGY: CULTURE

RESTRICTIONS:	Done for investigation of foodborne illness only. Contact your local health district or the state Office of Epidemiology, Food Protection and Immunization at (208)334-5939 for approval before requesting this test.
CPT CODE:	87075 (Stool)
SPECIMEN:	Stool in ParaPak C&S, Modified Carey-Blair or equivalent - fill to line (approximately 5 ml) Implicated food - minimum of 10 g in original container or transferred to sterile container using sterile instruments.
SHIPPING:	Ship stool at room temperature, food at refrigeration temperature
TURNAROUND:	Within 5 working days

This disease must be reported to your local Health District or to the state Office of Epidemiology, Food Protection and Immunization according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

CLOSTRIDIUM PERFRINGENS
IDENTIFICATION/CONFIRMATION OF REFERRED ISOLATE

METHODOLOGY: BIOCHEMICAL TESTING

RESTRICTIONS:	Toxin testing is done for investigation of foodborne illness only. Contact your local health district or the state Office of Epidemiology, Food Protection and Immunization at (208)334-5939 for approval before requesting this test.
CPT CODE:	87076
SPECIMEN:	Actively growing pure culture on suitable medium
SHIPPING:	Ship at room temperature in anaerobic transport environment
TURNAROUND:	Within 5 working days

CLOSTRIDIUM TETANI
IDENTIFICATION/CONFIRMATION OF REFERRED ISOLATE

METHODOLOGY: BIOCHEMICAL TESTING, TOXIN TESTING

RESTRICTIONS:	None
CPT CODE:	87076
SPECIMEN:	Actively growing pure culture on suitable medium
SHIPPING:	Ship at room temperature in anaerobic transport environment
TURNAROUND:	Within 2 weeks
COMMENTS:	If required, toxin testing is performed at CDC

This disease must be reported to your local Health District or to the state Office of Epidemiology, Food Protection and Immunization according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

CORYNEBACTERIUM DIPHTHERIAE
DETECTION IN CLINICAL SAMPLES

METHODOLOGY: CULTURE

RESTRICTIONS:	Contact laboratory at (208)334-2235 ext 295 and/or Office of Epidemiology, Food Protection and Immunization (208)334-5939 before requesting this test.
CPT CODE:	87081
SPECIMEN:	Culturette of nasopharyngeal swab, throat swab, membrane sample; or inoculate Loeffler's slant, leave swab on slant. Deliver to laboratory immediately or incubate at 37ºC and deliver within 18 hours of inoculation.
SHIPPING:	Ship at room temperature
TURNAROUND:	Negative results available after 48 hours of incubation

This disease must be reported to your local Health District or to the state Office of Epidemiology, Food Protection and

Immunization according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

CORYNEBACTERIUM DIPHTHERIAE
IDENTIFICATION/CONFIRMATION OF REFERRED ISOLATE

METHODOLOGY: BIOCHEMICAL TESTING; TOXIN TESTING

RESTRICTIONS:	Contact laboratory at (208)334-2235 ext 257 and/or Office of Epidemiology, Food Protection and Immunization (208)334-5939 before requesting this test.
CPT CODE:	87077
SPECIMEN:	Actively growing culture on suitable medium
SHIPPING:	Ship at room temperature
TURNAROUND:	*C. diphtheriae* ruled out within 1-2 working day of specimen receipt
COMMENTS:	Toxin testing performed by Centers for Disease Control and Prevention

This disease must be reported to your local Health District or to the state Office of Epidemiology, Food Protection and Immunization according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

COXIELLA BURNETII
DETECTION OF DNA IN CLINICAL SAMPLES

METHODOLOGY: LABORATORY RESPONSE NETWORK PROTOCOLS

Tests May Include:	PCR or Time Resolved Fluorescence Assay (TRF)
RESTRICTIONS:	Contact laboratory at (208)334-2235 and/or Office of Epidemiology, Food Protection and Immunization (208)334-5939 before requesting this test.
CPT CODE:	87798
SPECIMEN:	Tissue or bone marrow (100 mg) Whole EDTA blood or serum (0.5 ml) Nasopharyngeal or throat swab, dry or in transport medium Sputum, bronchial/tracheal washings (0.5 ml) Lesion exudates
SHIPPING:	Ship at refrigeration temperature.
TURNAROUND:	2 days
COMMENTS:	This test is for research use only.

This disease must be reported to your local Health District or to the state Office of Epidemiology, Food Protection and Immunization according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)
Note: This organism has been designated as a Select Agent (Select Agent Regulation, 42 CFR, 73, Interim Final Rule). Special handling criteria apply. Please contact the laboratory for special instructions.

COXSACKIE VIRUS
SEE: ENTEROVIRUS

CRYPTOSPORIDIUM SPP. (*C. PARVUM*, *C. HOMINIS*)
DETECTION IN CLINICAL SAMPLES

METHODOLOGY: MICROSCOPIC EXAMINATION, AND DIRECT IMMUNOFLUORESCENT ANTIBODY

RESTRICTIONS:	None
CPT CODE:	87015, 87272

SPECIMEN: Stool preserved in both 10% formalin and PVA - fill to line (kits are available from IBL)
Sputum preserved in 10% formalin
SHIPPING: Ship at room temperature
TURNAROUND: Within 3 working days
This disease must be reported to your local Health District or to the state Office of Epidemiology, Food Protection and Immunization according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

CRYPTOSPORIDIUM SPP. (*C. PARVUM*, *C. HOMINIS*)
IDENTIFICATION/CONFIRMATION OF REFERRED SPECIMEN

METHODOLOGY: MICROSCOPIC EXAMINATION, DIRECT IMMUNOFLUORESCENT ANTIBODY

RESTRICTIONS: None
CPT CODE: 87272
SPECIMEN: Prepared fecal concentrate
SHIPPING: Ship at room temperature
TURNAROUND: Within 3 working days
This disease must be reported to your local Health District or to the state Office of Epidemiology, Food Protection and Immunization according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

CYCLOSPORA CAYETANENSIS
DETECTION IN CLINICAL SAMPLES

METHODOLOGY: CONCENTRATION, MODIFIED ACID-FAST STAIN

RESTRICTIONS: None
CPT CODE: 87015, 87207
SPECIMEN: Stool preserved in both formalin and PVA - fill to line (kits are available from IBL)
SHIPPING: Ship at room temperature
TURNAROUND: Within 3 working days

CYCLOSPORA CAYETANENSIS
IDENTIFICATION/CONFIRMATION OF REFERRED SPECIMEN

METHODOLOGY: MICROSCOPIC EXAMINATION, MODIFIED ACID-FAST STAIN, AUTOFLUORESCENCE

RESTRICTIONS: None
CPT CODE: 87015, 87207
SPECIMEN: Prepared fecal concentrate
Stained or unstained permanent slides
SHIPPING: Ship at room temperature
TURNAROUND: Within 3 working days

DIPHTHERIA
SEE: *CORYNEBACTERIUM DIPHTHERIAE*

DIPHYLLOBOTHRIUM LATUM
DETECTION AND IDENTIFICATION
SEE: PARASITE EXAMINATION, INTESTINAL AND PARASITE IDENTIFICATION

ECHOVIRUS
SEE: ENTEROVIRUS

ENCEPHALITIS
SEE: ARBOVIRUS TEST LISTINGS, INDIVIDUAL AGENTS

ENTAMOEBA HISTOLYTICA/DISPAR
DETECTION IN CLINICAL SAMPLES/REFERRED SPECIMEN

METHODOLOGY: FORMALIN ETHYL ACETATE CONCENTRATION AND TRICHROME STAIN

RESTRICTIONS:	None
CPT CODE:	87177, 88313
SPECIMEN:	Stool preserved in both formalin and PVA - fill to line (kits are available from IBL) Sigmoidoscopy scrapings or aspirates mixed with an equal volume of PVA Abscess material mixed with an equal volume of PVA Stained or unstained permanent slides or stool concentrate
SHIPPING:	Ship at room temperature
TURNAROUND:	Within 3 working days
COMMENTS:	A minimum of 3 stool specimens collected on alternate days is recommended for diagnosis of intestinal amebiasis.

This disease must be reported to your local Health District or to the state Office of Epidemiology, Food Protection and Immunization according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

ENTERIC BACTERIAL CULTURE, ROUTINE
DETECTION OF BACTERIAL PATHOGENS IN STOOL

METHODOLOGY: CULTURE

Agents Detected:	*Salmonella* spp., *Shigella* spp., *Campylobacter* spp., Enterohemorrhagic *E. coli*
RESTRICTIONS:	None
CPT CODE:	87045 (Salm & Shig culture), 87046 (e. coli culture)
SPECIMEN:	Stool in ParaPak C&S, Modified Carey-Blair or equivalent - fill to line (approximately 5 ml). Unpreserved stool samples must be received within 2 hours of collection
SHIPPING:	Ship preserved samples at room temperature, fresh samples at refrigeration temperature
TURNAROUND:	Negative results are reported within 3-4 working days

ENTEROBIUS VERMICULARIS
DETECTION OF EGGS IN CLINICAL SAMPLES

METHODOLOGY: MICROSCOPIC EXAMINATION

RESTRICTIONS:	None
CPT CODE:	87172
SPECIMEN:	Commercial paddle Cellophane tape transferred to a glass slide
SHIPPING:	Ship at room temperature
TURNAROUND:	Within 1 working day
COMMENTS:	A minimum of 4-6 specimens collected on consecutive mornings is recommended for diagnosis. Eggs are not reliably found by routine parasite examination of stool.

ENTEROHEMORRHAGIC *E. COLI* (EHEC)

SEE: *ESCHERICHIA COLI*, SHIGA TOXIN-PRODUCING, or *ESCHERICHIA COLI* O157:H7

ENTEROVIRUS
DETECTION IN CLINICAL SAMPLES

METHODOLOGY: CULTURE AND DFA FOR COXSACKIE, ECHOVIRUS, ENTEROVIRUS, AND POLIO IDENTIFICATION

RESTRICTIONS:	None
CPT CODE:	87252 (culture), 87253 (ID)
SPECIMEN:	Throat swab (in viral transport medium), respiratory fluids (1 ml) including bronchoalveolar lavage, nasal wash, pleural fluid, stool, CSF (1 ml),skin vesicle (see Rash Illness Panel)
SHIPPING:	Ship at refrigeration temperature.
TURNAROUND:	Negative results available within 14 days.
COMMENTS:	Dry swab, wood swab, and calcium alginate swabs not acceptable

Encephalitis caused by viral agents must be reported to your local Health District or to the state Office of Epidemiology, Food Protection and Immunization according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

ESCHERICHIA COLI O157:H7
DETECTION IN CLINICAL SAMPLES

METHODOLOGY: CULTURE

RESTRICTIONS: None
CPT CODE: 87046
SPECIMEN: Stool in ParaPak C&S, Modified Carey-Blair or equivalent - fill to line (approximately 5 ml)
Unpreserved stool samples must be received within 2 hours of collection
SHIPPING: Ship preserved samples at room temperature, fresh samples at refrigeration temperature
TURNAROUND: Negative results are available within 1-2 working days
COMMENTS: Included in routine Enteric Bacterial Culture
This disease must be reported to your local Health District or to the state Office of Epidemiology, Food Protection and Immunization according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

ESCHERICHIA COLI O157:H7
IDENTIFICATION/CONFIRMATION OF REFERRED ISOLATE

METHODOLOGY: BIOCHEMICAL TESTING, SEROTYPING

RESTRICTIONS: None
CPT CODE: 87077, 87147 x 2
SPECIMEN: Actively growing pure culture on suitable medium
SHIPPING: Ship at room temperature
TURNAROUND: Identification from pure culture available within 2-3 working days
This disease must be reported to your local Health District or to the state Office of Epidemiology, Food Protection and Immunization according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

ESCHERICHIA COLI O157:H7
MOLECULAR SUBTYPING
SEE: PULSED-FIELD GEL ELECTROPHORESIS

ESCHERICHIA COLI, SHIGA TOXIN-PRODUCING
DETECTION/IDENTIFICATION/CONFIRMATION

METHODOLOGY: EIA, CULTURE, BIOCHEMICAL TESTING, SEROTYPING, PCR

RESTRICTIONS: None
CPT CODE: 87427 (EIA), 87077 (culture), 87147 (typing) 87798 (PCR)
SPECIMEN: Appropriate primary isolation plate, enrichment broth, or actively growing pure culture on suitable medium
Stool in ParaPak C&S, Modified Carey-Blair or equivalent - fill to line (approximately 5 ml)
Unpreserved stool samples must be received within 2 hours of collection
SHIPPING: Ship cultures or preserved stool samples at room temperature. Transport fresh stool samples at refrigeration temperature
TURNAROUND: Not available
COMMENTS: Tests may include PCR for virulence factors characteristic of enterohemorrhagic *E. coli* (EHEC).
Toxigenic non-O157 strains must be reported to your local Health District or to the state Office of Epidemiology, Food Protection and Immunization according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

FOOD POISONING (SUSPECTED)
DETECTION OF BACTERIAL PATHOGENS OR ENTEROTOXINS IN IMPLICATED FOOD

METHODOLOGY: QUANTITATIVE CULTURE, REVERSED PASSIVE LATEX AGGLUTINATION

RESTRICTIONS: Done for investigation of foodborne illness only. Contact your local Health District or to the state Office of Epidemiology, Food Protection and Immunization (208)334-5939 before requesting this test.
CPT CODE: Not applicable
SPECIMEN: Implicated food - minimum of 10 g in original container or transferred to sterile container using sterile instruments.
SHIPPING: Ship at refrigeration temperature.

TURNAROUND: Not available

FRANCISELLA TULARENSIS
ANTIBODY DETECTION

RESTRICTIONS: Contact laboratory at (208) 334-2235 before requesting this test.
CPT CODE: 86668
SPECIMEN: Serum (2 ml)
SHIPPING: Ship at refrigeration temperature.
TURNAROUND: Not available
COMMENTS: Referred to Centers for Disease Control and Prevention
This disease must be reported to your local Health District or to the state Office of Epidemiology, Food Protection and Immunization according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

FRANCISELLA TULARENSIS
DETECTION IN CLINICAL SAMPLES

METHODOLOGY: CULTURE AND LABORATORY RESPONSE NETWORK PROTOCOLS

Tests May Include: Biochemical, molecular, and immunological methods
RESTRICTIONS: Contact laboratory at (208) 334-2235 before requesting this test.
CPT CODE: 87081
SPECIMEN: See Appendix E
SHIPPING: Ship at refrigeration temperature.
TURNAROUND: Negative results available after 5-7 days of incubation
This disease must be reported to your local Health District or to the state Office of Epidemiology, Food Protection and Immunization according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

FRANCISELLA TULARENSIS
IDENTIFICATION/CONFIRMATION OF REFERRED ISOLATE

METHODOLOGY: CULTURE AND LABORATORY RESPONSE NETWORK PROTOCOLS

Tests May Include: Biochemical, molecular, and immunological methods
RESTRICTIONS: Contact laboratory at (208) 334-2235 before sending isolate.
CPT CODE: 87077
SPECIMEN: Actively growing pure culture on suitable medium
SHIPPING: Ship at room or refrigeration temperature.
TURNAROUND: Not available
This disease must be reported to your local Health District or to the state Office of Epidemiology, Food Protection and Immunization according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)
Note: This organism has been designated as a Select Agent (Select Agent Regulation, 42 CFR, 73, Interim Final Rule). Special handling criteria apply. Please contact the laboratory for special instructions.

GASTROENTERITIS, VIRAL
SEE: NOROVIRUS

GIARDIA LAMBLIA
DETECTION IN CLINICAL SAMPLES

METHODOLOGY: FORMALIN ETHYL ACETATE CONCENTRATION, DIRECT FLUORESCENT ANTIBODY

RESTRICTIONS: None
CPT CODE: 87177 (conc), 87272 (FA)
SPECIMEN: Stool preserved in both formalin and PVA - fill to line (kits are available from IBL)
Duodenal contents (aspiration or Entero-Test capsule) mixed with an equal volume of PVA

SHIPPING: Ship at room temperature
TURNAROUND: Within 3 working days
COMMENTS: A minimum of 3 stool specimens collected on alternate days is recommended. Traditional methods detect cysts and trophozoites; DFA detects cysts only.
This disease must be reported to your local Health District or to the state Office of Epidemiology, Food Protection and Immunization according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

GIARDIA LAMBLIA
IDENTIFICATION/CONFIRMATION OF REFERRED SPECIMEN

METHODOLOGY: DIRECT FLUORESCENT ANTIBODY

RESTRICTIONS: None
CPT CODE: 87272
SPECIMEN: Prepared fecal concentrate
Stained or unstained permanent slides
SHIPPING: Ship at room temperature
TURNAROUND: Within 3 working days
This disease must be reported to your local Health District or to the state Office of Epidemiology, Food Protection and Immunization according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

GISA (GLYCOPEPTIDE INTERMEDIATE STAPHYLOCOCCUS AUREUS)
SEE: *STAPHYLOCOCCUS AUREUS* GLYCOPEPTIDE/VANCOMYCIN INTERMEDIATE (GISA/VISA)

GONORRHEA (GC)
SEE: *NEISSERIA GONORRHOEAE*

GROUP A *STREPTOCOCCUS*
SEE: *STREPTOCOCCUS*, GROUP A

GROUP B *STREPTOCOCCUS*
SEE: *STREPTOCOCCUS*, GROUP B

GRSA (GLYCOPEPTIDE RESISTANT *STAPHYLOCOCCUS AUREUS*)
SEE: *STAPHYLOCOCCUS AUREUS*, GLYCOPEPTIDE/VANCOMYCIN RESISTANT (GRSA/VRSA)

HAEMOPHILUS DUCREYI
DETECTION OF DNA IN CLINICAL SAMPLES

METHODOLOGY: PCR

RESTRICTIONS: Contact the laboratory at (208) 334-2235 ext 295 before requesting this test
CPT CODE: Not applicable
SPECIMEN: Dry swabs (2) of lesion. (kits are available from IBL)
SHIPPING: Ship overnight at refrigeration temperature or on ice pack
TURNAROUND: Not available
COMMENTS: Referred to Centers for Disease Control and Prevention
This disease must be reported to your local Health District or to the state Office of Epidemiology, Food Protection and Immunization according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

HAEMOPHILUS INFLUENZAE
IDENTIFICATION/CONFIRMATION OF REFERRED ISOLATE

METHODOLOGY: BIOCHEMICAL TESTING, SEROGROUPING

RESTRICTIONS:	None
CPT CODE:	87077 (culture), 17185 (beta lactamase), 87147 x 6 (serogrouping)
SPECIMEN:	Actively growing pure culture on suitable medium
SHIPPING:	Ship at room temperature
TURNAROUND:	Identification from pure culture available within 2-3 working days

Invasive disease caused by this agent must be reported to your local Health District or to the state Office of Epidemiology, Food Protection and Immunization according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

HANTAVIRUS
IgM AND IgG ANTIBODY DETECTION

METHODOLOGY: ENZYME IMMUNOASSAY

RESTRICTIONS: Contact the laboratory (208)334-2235 and/or the state Office of Epidemiology, Food Protection and Immunization (208)334-5939 before requesting this test.
CPT CODE: 86790 (IgG), 86791(IgM)
SPECIMEN: Serum (1 ml)
SHIPPING: Ship at refrigeration temperature.
TURNAROUND: 2 working days. Call ahead to arrange for 24 hour TAT
This disease must be reported to your local Health District or to the state Office of Epidemiology, Food Protection and Immunization according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

HEMOLYTIC UREMIC SYNDROME (HUS)
DETECTION OF AGENT IN CLINICAL SAMPLES

SEE ALSO: *ESCHERICHIA COLI*, SHIGA TOXIN-PRODUCING, *ESCHERICHIA COLI* O157:H7

METHODOLOGY: ENZYME IMMUNOASSAY, CULTURE, PCR

RESTRICTIONS: None
CPT CODE: 87046 (culture), 87427 (EIA), 87798 (PCR)
SPECIMEN: Stool in ParaPak C&S, Modified Carey-Blair or equivalent - fill to line (approximately 5 ml)
Unpreserved stool samples (swab or other container)
Stool culture plate
SHIPPING: Ship preserved samples at room temperature, fresh samples at refrigeration temperature
TURNAROUND: Within 2-4 working days
COMMENTS: If HUS is suspected and *E. coli* O157 has not been found, send stool specimen
This disease must be reported to your local Health District or to the state Office of Epidemiology, Food Protection and Immunization according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

HEPATITIS B
SURFACE ANTIGEN WITH REFLEX TO CONFIRMATION

METHODOLOGY: ENZYME IMMUNOASSAY

RESTRICTIONS: None
CPT CODE: 87340 (EIA), 87341 (neutralization)
SPECIMEN: Serum (1.5ml), plasma is acceptable
SHIPPING: Ship at refrigeration temperature.
TURNAROUND: Routinely batch tested once per week
This disease must be reported to your local Health District or to the state Office of Epidemiology, Food Protection and Immunization according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10

HEPATITIS B
SURFACE ANTIBODY

METHODOLOGY: ENZYME IMMUNOASSAY

RESTRICTIONS: None
CPT CODE: 86706
SPECIMEN: Serum (0.5ml), plasma is acceptable
SHIPPING: Ship at refrigeration temperature.
TURNAROUND: Routinely batch tested once per week

HEPATITIS B
CORE TOTAL ANTIBODY

METHODOLOGY: ENZYME IMMUNOASSAY

RESTRICTIONS: None
CPT CODE: 86704
SPECIMEN: Serum (0.5ml), plasma is acceptable
SHIPPING: Ship at refrigeration temperature.
TURNAROUND: Routinely batch tested once per week

HEPATITIS C
TOTAL ANTIBODY SCREEN

METHODOLOGY: ENZYME IMMUNOASSAY

RESTRICTIONS: None
CPT CODE: 86803
SPECIMEN: Serum (0.5ml), plasma is acceptable
SHIPPING: Routinely batch tested once per week
This disease must be reported to your local Health District or to the state Office of Epidemiology, Food Protection and Immunization according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

HERPES SIMPLEX VIRUS
DETECTION IN CLINICAL SAMPLES
SEE ALSO: RASH ILLNESS PANEL

METHODOLOGY: CULTURE WITH DIRECT FLUORESCENT ANTIBODY TYPING FOR HSV1 AND HSV2

RESTRICTIONS: None
CPT CODE: 87252 (culture), 87273 (ID type 2), 87274 (ID type 1)
SPECIMEN: Vesicle lesion in viral transport medium
Throat swab in viral transport medium
Genital swab in viral transport medium
Ocular swab in viral transport medium
CSF (1 ml)
SHIPPING: Ship at refrigeration temperature.
TURNAROUND: 7 days for negative result

HERPES SIMPLEX VIRUS
IgG ANTIBODY DETECTION FOR HSV1 AND HSV2

METHODOLOGY: ENZYME IMMUNOASSAY

RESTRICTIONS: None
CPT CODE: 86695 (Type 1), 86696 (Type 2)
SPECIMEN: Serum (0.5 ml)
SHIPPING: Ship at refrigeration temperature.
TURNAROUND: Routinely batch tested once per week

HERPES ZOSTER
SEE: VARICELLA ZOSTER VIRUS

HIV
SEE: HUMAN IMMUNODEFICIENCY VIRUS

HOOKWORM
SEE: PARASITE EXAMINATION, PARASITE IDENTIFICATION

HSV
SEE: HERPES SIMPLEX VIRUS

HUMAN IMMUNODEFICIENCY VIRUS I/2 ANTIBODY PLUS O

METHODOLOGY: ENZYME IMMUNOASSAY WITH REFLEX TO CONFIRMATION

RESTRICTIONS: None
CPT CODE: 86703, 86689 for Western Blot confirmation
SPECIMEN: Serum (preferred), plasma acceptable (1 ml)
SHIPPING: Ship at refrigeration temperature.
TURNAROUND: Routinely batch tested once per week, 1 day if exposure

This disease must be reported to your local Health District or to the state Office of Epidemiology, Food Protection and Immunization according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

HUMAN IMMUNODEFICIENCY VIRUS I
ANTIBODY CONFIRMATION

METHODOLOGY: WESTERN BLOT IMMUNOASSAY

RESTRICTIONS: None
CPT CODE: 86689
SPECIMEN: Serum (preferred), plasma acceptable (1 ml)
SHIPPING: Ship at refrigeration temperature.
TURNAROUND: 1 day
NOTE: Specimen will be forwarded for Multispot testing to differentiate HIV-1 and HIV-2 when HIV-1/2 Plus O EIA is reactive and HIV-1 Western Blot is negative or indeterminate.

This disease must be reported to your local Health District or to the state Office of Epidemiology, Food Protection and Immunization according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

INFANT BOTULISM

SEE: *CLOSTRIDIUM BOTULINUM*

INFLUENZA A AND B VIRUSES
DETECTION, IDENTIFICATION AND SUBTYPING
METHODOLOGY: RT-PCR, CULTURE

RESTRICTIONS: None
CPT CODE: 87252 (culture), 87253 (ID), 87798 (RT-PCR)
SPECIMEN: Nasopharyngel swab, nasal swab, dual nasopharyngeat/throat swabs (all swabs must be in viral transport medium). Nasal wash or aspirate, BAL, bronchail Wash, tracheal Aspirate
SHIPPING: Ship at refrigeration temperature.
TURNAROUND: 24-48 hrs RT-PCR**,** 14 days for negative culture
COMMENTS: Dry swab, wood swab, and calcium alginate swabs not acceptable
NOTE: Testing detects subtypes of influenza including 2009 AH1N1pdm, seasonal H1 and H3, and H5.

Unusual incidences or laboratory confirmed cases must be reported to your local Health District or to the state Office of Epidemiology, Food Protection and Immunization according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

LEGIONELLA SPECIES
DETECTION IN CLINICAL SAMPLES

METHODOLOGY: CULTURE, BIOCHEMICAL TESTING, 16S RIBOSOMAL DNA SEQUENCE ANALYSIS

RESTRICTIONS: None
CPT CODE: 87081 (culture ID), 87158 (sequence analysis)
SPECIMEN: Lower respiratory secretions (>1 ml)
Pleural fluid (>1 ml), Lung tissue in just enough sterile saline to keep moist
SHIPPING: Ship at refrigeration temperature
TURNAROUND: Within 5 working days

This disease must be reported to your local Health District or to the state Office of Epidemiology, Food Protection and Immunization according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

LEGIONELLA SPECIES
DETECTION IN ENVIRONMENTAL SAMPLES

METHODOLOGY: CULTURE

RESTRICTIONS: Contact the laboratory (208) 334-2235 before requesting this test.

TURNAROUND: Not available

LEGIONELLA SPECIES
IDENTIFICATION/CONFIRMATION OF REFERRED ISOLATE

METHODOLOGY: BIOCHEMICAL TESTING, 16S RIBOSOMAL DNA SEQUENCE ANALYSIS

RESTRICTIONS: None
CPT CODE: 87077 (ID), 87278 (sequence analysis)
SPECIMEN: Actively growing pure culture on suitable medium
SHIPPING: Ship at room temperature
TURNAROUND: Within 5 working days
This disease must be reported to your local Health District or to the state Office of Epidemiology, Food Protection and Immunization according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

LEPTOSPIRA SPP.
IDENTIFICATION/CONFIRMATION OF REFERRED ISOLATE

METHODOLOGY: SEROLOGIC AND MOLECULAR METHODS

RESTRICTIONS: Contact your local health district or the state Office of Epidemiology, Food Protection and Immunization (208)334-5939 before requesting this test
CPT CODE: Not applicable
SPECIMEN: Actively growing pure culture on suitable medium
SHIPPING: Ship at room temperature
TURNAROUND: Not available
COMMENTS: Referred to Centers for Disease Control and Prevention
This disease must be reported to your local Health District or to the state Office of Epidemiology, Food Protection and Immunization according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

LEPTOSPIRA SPP.
IgM AND IgG ANTIBODY DETECTION

METHODOLOGY: MICROSCOPIC AGGLUTINATION OR ELISA

RESTRICTIONS: Contact your local health district or the state Office of Epidemiology, Food Protection and Immunization (208)334-5939 before requesting this test.
CPT CODE: 86720
SPECIMEN: Serum (1ml)
SHIPPING: Ship frozen or refrigerated
TURNAROUND: Not available
COMMENTS: Referred to Centers for Disease Control and Prevention
This disease must be reported to your local Health District or to the state Office of Epidemiology, Food Protection and Immunization according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

LEPROSY
SEE: MYCOBACTERIUM LEPRAE

LEPTOSPIROSIS
SEE: *LEPTOSPIRA* SPP.

LISTERIA MONOCYTOGENES
MOLECULAR SUBTYPING
SEE: PULSED-FIELD GEL ELECTROPHORESIS

LISTERIA MONOCYTOGENES
DETECTION IN CLINICAL SAMPLES

METHODOLOGY: CULTURE, 16S RIBOSOMAL DNA SEQUENCING IF INDICATED

RESTRICTIONS: None
CPT CODE: 87046 (Stool), 87081 (Other sources), 87158 (sequence analysis)
SPECIMEN: Blood - send inoculated blood culture bottle
CSF, body fluids (1 ml)
Stool in ParaPak C&S, Modified Carey-Blair or equivalent - fill to line (approximately 5 ml)

SHIPPING: Ship blood culture or stool in transport medium at room temperature
Ship other clinical samples at refrigeration temperature
TURNAROUND: Negative results available after 4-7 days of incubation
This disease must be reported to your local Health District or to the state Office of Epidemiology, Food Protection and Immunization according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

LISTERIA MONOCYTOGENES
IDENTIFICATION/CONFIRMATION OF REFERRED ISOLATE

METHODOLOGY: BIOCHEMICAL TESTING

RESTRICTIONS: None
CPT CODE: 87077
SPECIMEN: Actively growing pure culture on suitable medium
SHIPPING: Ship at room temperature
TURNAROUND: Identification from pure culture within 3 working days
This disease must be reported to your local Health District or to the state Office of Epidemiology, Food Protection and Immunization according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

LYME
DETECTION OF ANTIBODY

METHODOLOGY: EIA WITH REFLEX TO WESTERN BLOT CONFIRMATORY TESTING

RESTRICTIONS: None
CPT CODE: Not applicable
SPECIMEN: 2ml serum and a completed Lyme Disease Report form (call Virology at 334-2235 for a faxed copy)
SHIPPING: Ship at room temperature
TURNAROUND: 2-3 weeks
COMMENTS: Referred to Centers for Disease Control and Prevention, Fort Collins, Colorado

MALARIA
SEE: *PLASMODIUM* SPP.

MEASLES (RUBEOLA) VIRUS
IgM AND IgG ANTIBODY DETECTION

METHODOLOGY: ENZYME IMMUNOASSAY

RESTRICTIONS: None
CPT CODE: 86765
SPECIMEN: Acute phase serum or acute and convalescent paired sera, (1 ml)
SHIPPING: Ship at refrigeration temperature.
TURNAROUND: IgG Routinely batch tested once per week, IgM upon request
Measles (Rubeola) must be reported to your local Health District or to the state Office of Epidemiology, Food Protection and Immunization according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

MENINGITIS, VIRAL
SEE: ENTEROVIRUS

MENINGOCOCCEMIA
SEE: *NEISSERIA MENINGITIDIS*

MENINGOCOCCUS
SEE: *NEISSERIA MENINGITIDIS*

MENINGOENCEPHALITIS, VIRAL
SEE: ARBOVIRUS, ENTEROVIRUS, OTHER INDIVIDUAL AGENTS AS INDICATED

METHICILLIN RESISTANT *STAPHYLOCOCCUS AUREUS* (MRSA)
SEE: *STAPHYLOCOCCUS AUREUS*, METHICILLIN RESISTANT

MICROFILARIAE
SEE: PARASITE EXAMINATION, BLOOD

MONKEYPOX VIRUS
SEE: RASH ILLNESS PANEL

MRSA (METHICILLIN RESISTANT *STAPHYLOCOCCUS AUREUS*)
SEE: *STAPHYLOCOCCUS AUREUS*, METHICILLIN-RESISTANT

MUMPS VIRUS
DETECTION IN CLINICAL SAMPLES

METHODOLOGY: CULTURE AND DFA

RESTRICTIONS: None
CPT CODE: 87252 (culture), 87253 (ID)
SPECIMEN: Bucal Swab in viral transport media
SHIPPING: Ship at refrigeration temperature.
TURNAROUND: Negative results available within 14 days.
COMMENTS: Dry swab, wood swab, and calcium alginate swabs not acceptable
Encephalitis caused by viral agents must be reported to your local Health District or to the state Office of Epidemiology, Food Protection and Immunization according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

MUMPS VIRUS
DETECTION OF RNA IN CLINICAL SAMPLES

METHODOLOGY: RT-PCR

RESTRICTIONS: Contact your local Health District before requesting this test
CPT CODE: 87798
SPECIMEN: Buccal Swab in Viral Transport Media
SHIPPING: Ship at refrigeration temperature.
TURNAROUND: 48 hours
COMMENTS: Dry swab, wood swab, and calcium alginate swabs not acceptable
This disease must be reported to your local Health District or to the state Office of Epidemiology, Food Protection and Immunization according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

MUMPS VIRUS
IgG and IgM ANTIBODY DETECTION

METHODOLOGY: ENZYME IMMUNOASSAY AND INDIRECT FLUORESCENT ANTIBODY

RESTRICTIONS: None
CPT CODE: 86735
SPECIMEN: Congenital or acute phase serum or paired sera
SHIPPING: Ship at refrigeration temperature.
TURNAROUND: Routinely batch tested once per week, IgM on request
This disease must be reported to your local Health District or to the state Office of Epidemiology, Food Protection and Immunization according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

MYCOBACTERIUM BOVIS BCG
IDENTIFICATION/CONFIRMATION OF REFERRED ISOLATE

METHODOLOGY: SPOLIGOTYPING

RESTRICTIONS: None
CPT CODE: 87158
SPECIMEN: Actively growing culture on suitable solid medium
Growth in BACTEC or ESP bottle, MGIT tube etc.
SHIPPING: Ship at room temperature, sealed culture system.

TURNAROUND: Not available
COMMENTS: *M. bovis* is a member of the *M. tuberculosis* complex and is routinely reported as such. Specific identification may be requested to rule out dissemination as a complication of BCG therapy against bladder cancer. Spoligotyping performed at regional genotyping laboratory.
This disease must be reported to your local Health District or to the state Office of Epidemiology, Food Protection and Immunization according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

MYCOBACTERIUM LEPRAE

Contact Lab for Submission Requirements

MYCOBACTERIUM SPP. (NOT TUBERCULOSIS) DETECTION/IDENTIFICATION/CONFIRMATION IN CLINICAL SAMPLES

METHODOLOGY: DIRECT ACID-FAST SMEAR, CULTURE, NUCLEIC ACID PROBE AND , SEQUENCING OF 16S RIBOSOMAL DNA IF INDICATED

RESTRICTIONS: None
CPT CODE: 87116 (culture), 87015 (concentrate), 87206 (stain), 87560 (M. avium), 87550 (M. gordonae) 87158 (sequence analysis)
SPECIMEN: See Appendix F
Actively growing pure culture on suitable solid medium
Growth in BACTEC or ESP bottle, MGIT tube etc.
SHIPPING: Raw samples should be shipped at refrigeration temperature, isolates can be shipped at room temperature, sealed culture system.
TURNAROUND: Smear available within 1 working day. Probe results available within 3 working days.

MYCOBACTERIUM SPP. (NOT TUBERCULOSIS) ANTIMICROBIAL SUSCEPTIBILITY TESTING

RESTRICTIONS: Testing is done on request only and must be billed directly to the submitter.
CPT CODE: 87190 varies
SPECIMEN: Actively growing pure culture on suitable solid medium
Growth in BACTEC or ESP bottle, MGIT tube etc.
SHIPPING: Ship at room temperature, sealed culture system.
TURNAROUND: Varies
COMMENTS: Isolates are forwarded to Centers for Disease Control and Prevention or National Jewish Mycobacterial Reference Lab, Denver, CO.

MYCOBACTERIUM TUBERCULOSIS COMPLEX DIRECT DETECTION IN CLINICAL SAMPLES

METHODOLOGY: NUCLEIC ACID AMPLIFICATION

RESTRICTIONS: Performed with office of epidemiology approval only.
CPT CODE: 87556
SPECIMEN: Sample must be a respiratory type sample; sample must be digested/decontaminated before forwarding to testing laboratory.
SHIPPING: Ship cool 2-8ºC
TURNAROUND: 24-48 hours
COMMENTS: Forwarded to Montana Public Health Laboratory
This disease must be reported to your local Health District or to the state Office of Epidemiology, Food Protection and Immunization according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

MYCOBACTERIUM TUBERCULOSIS COMPLEX DETECTION IN CLINICAL SAMPLES

METHODOLOGY: DIRECT ACID-FAST SMEAR, CULTURE

RESTRICTIONS: None

CPT CODE: 87015 (conc), 87206 (stain) 87116 (culture)
SPECIMEN: See Appendix F
SHIPPING: Ship at refrigeration temperature.
TURNAROUND: Smear available within 1 working day. Negative culture results available after 6 weeks of Incubation.
This disease must be reported to your local Health District or to the state Office of Epidemiology, Food Protection and Immunization according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

MYCOBACTERIUM TUBERCULOSIS COMPLEX IDENTIFICATION/CONFIRMATION OF REFERRED ISOLATE

METHODOLOGY: NUCLEIC ACID PROBE

RESTRICTIONS: None
CPT CODE: 87555 (M. tb probe)
SPECIMEN: Actively growing pure culture on suitable solid medium
Growth in BACTEC or ESP bottle, MGIT tube etc.
SHIPPING: Ship at room temperature, sealed culture system.
TURNAROUND: Probe results available within 3 working days.
This disease must be reported to your local Health District or to the state Office of Epidemiology, Food Protection and Immunization according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

MYCOBACTERIUM TUBERCULOSIS COMPLEX ANTIMICROBIAL SUSCEPTIBILITY TESTING, FIRST-LINE DRUGS

METHODOLOGY: PERFORMED BY LIQUID CULTURE SYSTEM

Drugs Included in Panel: Isoniazid, Rifampin, Ethambutol, and Pyrazinamide
RESTRICTIONS: Done automatically on initial patient isolate and subsequent isolates with evidence of treatment failure.
CPT CODE: 87190 x 6
SPECIMEN: Actively growing pure culture on suitable solid medium
Growth in BACTEC or ESP bottle, MGIT tube etc.
SHIPPING: Ship at room temperature, sealed culture system.
TURNAROUND: 7-14 days from date susceptibility testing is begun
This disease must be reported to your local Health District or to the state Office of Epidemiology, Food Protection and Immunization according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

MYCOBACTERIUM TUBERCULOSIS COMPLEX ANTIMICROBIAL SUSCEPTIBILITY TESTING, SECOND-LINE DRUGS

RESTRICTIONS: Performed on MDRTB isolates (resistant to 2 or more first-line drugs)
CPT CODE: 87190 x variable
SPECIMEN: Actively growing pure culture on suitable solid medium
Growth in BACTEC or ESP bottle, MGIT tube etc.
SHIPPING: Ship at room temperature, sealed culture system.
TURNAROUND: Varies
COMMENTS: Forwarded to Centers for Disease Control and Prevention or National Jewish Mycobacterial Reference Lab, Denver, CO.
This disease must be reported to your local Health District or to the state Office of Epidemiology, Food Protection and Immunization according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

MYCOBACTERIUM TUBERCULOSIS COMPLEX MOLECULAR SUBTYPING

METHODOLOGY: SPOLIGOTYPING, MIRU TYPING, RESTRICTION FRAGMENT LENGTH POLYMORPHISM

RESTRICTIONS: Done at the request of epidemiology staff only.
CPT CODE: Not applicable
SPECIMEN: Actively growing pure culture on suitable solid medium
Growth in BACTEC or ESP bottle, MGIT tube etc.
SHIPPING: Ship at room temperature, sealed culture system.
TURNAROUND: Not available
COMMENTS: Forwarded to regional genotyping laboratory

This disease must be reported to your local Health District or to the state Office of Epidemiology, Food Protection and Immunization according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

MYCOBACTERIUM TUBERCULOSIS COMPLEX
DETECTION OF ANTIGENIC RESPONSE IN CLINICAL SAMPLES

METHODOLOGY: INTERFERON GAMMA RELEASE ASSAY (IGRA)

RESTRICTIONS:	None
CPT CODE:	86840
SPECIMEN:	Plasma (1ml) x 3 designated tubes per patient
SHIPPING:	Specimen must be incubated at site of collection for 16-24 hours within 16 hours of collection. Samples must be shipped to be received at the laboratory within 3 days after incubation. Ship at room temperature.
TURNAROUND:	7 days from receipt of sample

This disease must be reported to your local Health District or to the state Office of Epidemiology, Food Protection and Immunization according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

NEISSERIA GONORRHOEAE
NUCLEIC ACID DETECTION

METHODOLOGY: NUCLEIC ACID AMPLIFICATION

RESTRICTIONS:	None.
CPT CODE:	87801
SPECIMEN:	Endocervical. male urethral, vaginal, pharyngeal, or rectal swab, urine. Collected in appropriate Gen-Probe APTIMA Collection kits)
SHIPPING:	Ship at room temperature
TURNAROUND:	Routinely tested each working day
COMMENTS:	This method is not recommended for medico legal cases and is not acceptable for throat, conjunctival, or rectal swabs or for antimicrobial sensitivity testing. Only culture procedures are recommended for these situations. The IBL will continue to perform culture tests for N. gonorrhoeae under these circumstances.

This disease must be reported to your local Health District or to the state Office of Epidemiology, Food Protection and Immunization according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

NEISSERIA GONORRHOEAE
DETECTION IN CLINICAL SAMPLES

METHODOLOGY: CULTURE, BIOCHEMICAL TESTING, NUCLEIC ACID PROBE

RESTRICTIONS:	None
CPT CODE:	87081(culture) 87149 (ID), 87185 (beta lactamase), 87591 (probe)
SPECIMEN:	Inoculated MTM or JEMBEC plates
SHIPPING:	Ship at room temperature ASAP in CO_2 environment.
TURNAROUND:	2 days for a negative culture
COMMENTS:	Non-genital sites only

This disease must be reported to your local Health District or to the state Office of Epidemiology, Food Protection and Immunization according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

NEISSERIA GONORRHOEAE
IDENTIFICATION/CONFIRMATION OF REFERRED ISOLATE

METHODOLOGY: BIOCHEMICAL TESTING, NUCLEIC ACID PROBE

RESTRICTIONS: None
CPT CODE: 87077 (culture), 87185 (beta lactamase), 87591 (probe)
SPECIMEN: Actively growing pure culture on suitable solid medium
SHIPPING: Ship at room temperature in CO_2 environment
TURNAROUND: 2 working days
This disease must be reported to your local Health District or to the state Office of Epidemiology, Food Protection and Immunization according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

NEISSERIA MENINGITIDIS
IDENTIFICATION/CONFIRMATION OF REFERRED ISOLATE

METHODOLOGY: BIOCHEMICAL TESTING, SEROGROUPING

RESTRICTIONS: None
CPT CODE: 87077 (culture**)** 87147 x 6 (typing)
SPECIMEN: Actively growing pure culture on suitable solid medium
SHIPPING: Ship at room temperature
TURNAROUND: Within 2-3 working days
This disease must be reported to your local Health District or to the state Office of Epidemiology, Food Protection and Immunization according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

NOROVIRUS
DETECTION OF RNA IN CLINICAL SAMPLES

METHODOLOGY: RT-PCR

RESTRICTIONS: Contact the state Office of Epidemiology, Food Protection and Immunization (208)334-5939 before requesting this test.
CPT CODE: 87798
SPECIMEN: Stool, fresh or in ParaPak C&S - fill to line (approximately 5ml)
SHIPPING: Ship at refrigeration temperature.
TURNAROUND: Not available
COMMENTS: This test is used for investigations of gastroenteritis outbreaks only. No single diagnostic specimens accepted.
This disease must be reported to your local Health District or to the state Office of Epidemiology, Food Protection and Immunization according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

NORWALK-LIKE VIRUS
SEE: NOROVIRUS

OVA AND PARASITES, ROUTINE
SEE: PARASITE EXAMINATION, INTESTINAL

PARAINFLUENZA VIRUS 1, 2, AND 3
DETECTION IN CLINICAL SAMPLES

METHODOLOGY: CULTURE

RESTRICTIONS: None
CPT CODE: 87252 (culture), 87253 (ID)
SPECIMEN: Nasopharyngeal, nasal, or throat swab in viral transport medium, nasal wash or aspirate (1ml)
COMMENTS: Dry swab, wood swab, and calcium alginate swabs not acceptable
SHIPPING: Ship at refrigeration temperature.
TURNAROUND: Negative culture results available within 14 days
COMMENTS: Dry swabs, wood, and calcium alginate swaps are unacceptable

PARASITE EXAMINATION, BLOOD

SEE ALSO: PLASMODIUM

METHODOLOGY: MICROSCOPIC EXAMINATION OF GIEMSA STAINED BLOOD SMEARS

Agents Detected:	*Plasmodium* spp., *Trypanosoma* spp., microfilariae, *Babesia* spp.
RESTRICTIONS:	None
CPT CODE:	87207
SPECIMEN:	Thick and thin blood films - 3 sets, air-dry and EDTA blood tube - filled
SHIPPING:	Transport slides in protective holder at room temperature. Ship EDTA blood at refrigeration temperature
TURNAROUND:	Sent to CDC, turnaround time unavailable
COMMENTS:	Examination of blood films collected every 6-8 hours for up to 3 days may be to diagnose or rule out infection.

PARASITE EXAMINATION, INTESTINAL
DETECTION IN STOOL

METHODOLOGY: FORMALIN ETHYL ACETATE CONCENTRATION, TRICHROME STAIN, ACID-FAST STAIN

Agents Detected:	Eggs and larvae of intestinal helminths, cysts and trophozoites of intestinal protozoa, and oocysts of coccidia (Routine O&P)
RESTRICTIONS:	None
CPT CODE:	87177 (conc/ID), 88313 (Trichrome stain), 87207 (Acid Fast stain)
SPECIMEN:	Stool preserved in both formalin and PVA - fill to line (kits are available from IBL. Call (208)334 2235 ext 226)
SHIPPING:	Ship at room temperature
TURNAROUND:	Within 3 working days
COMMENTS:	Minimum of 3 stool specimens collected on alternate days recommended for detection of intestinal parasites.

PARASITE IDENTIFICATION (ADULT PARASITE)
IDENTIFICATION/CONFIRMATION OF REFERRED SPECIMEN

METHODOLOGY: GROSS OR MICROSCOPIC EXAMINATION

RESTRICTIONS:	None
CPT CODE:	87169
SPECIMEN:	Whole worm, scolex, or proglottids, in saline or 10% formalin or 70% alcohol
SHIPPING:	Ship at room temperature
TURNAROUND:	Within 3 working days

PARASITE IDENTIFICATION, BLOOD
IDENTIFICATION/CONFIRMATION OF REFERRED SPECIMEN

SEE ALSO: *PLASMODIUM*

METHODOLOGY: MICROSCOPIC EXAMINATION

RESTRICTIONS:	None
CPT CODE:	87207
SPECIMEN:	Thick and thin blood films - stained or unstained
SHIPPING:	Transport slides in protective holder at room temperature.
TURNAROUND:	Sent to Centers for Disease Control and Prevention, turnaround time unavailable

PARASITE IDENTIFICATION (EGGS, LARVAE, CYSTS)
IDENTIFICATION/CONFIRMATION OF REFERRED SPECIMEN

METHODOLOGY: MICROSCOPIC EXAMINATION

RESTRICTIONS:	None

CPT CODE:	87177
SPECIMEN:	Prepared specimen concentrate Stained or unstained slides
SHIPPING:	Ship at room temperature
TURNAROUND:	Within 1 working day

PERTUSSIS
SEE: *BORDETELLA PERTUSSIS*

PFGE
SEE: PULSED-FIELD GEL ELECTROPHORESIS

PINWORM
SEE: *ENTEROBIUS VERMICULARIS*

PLAGUE
SEE: *YERSINIA PESTIS*

PLASMODIUM SPP.
CONFIRMATION AND SPECIES IDENTIFICATION OF REFERRED SPECIMENS

METHODOLOGY: MICROSCOPIC EXAMINATION

RESTRICTIONS:	None
CPT CODE:	87207
SPECIMEN:	Thick and thin blood films - stained or unstained
SHIPPING:	Transport slides in protective holder at room temperature. Ship EDTA blood at refrigeration temperature
TURNAROUND:	Sent to Centers for Disease Control and Prevention, turnaround time unavailable

This disease must be reported to your local Health District or to the state Office of Epidemiology, Food Protection and Immunization according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

PLASMODIUM SPP.
DETECTION IN BLOOD

METHODOLOGY: MICROSCOPIC EXAMINATION OF GIEMSA STAINED BLOOD SMEARS

RESTRICTIONS:	None
CPT CODE:	87207
SPECIMEN:	Thick and thin blood films - 3 sets, air-dry EDTA blood tube - filled
SHIPPING:	Transport slides in protective holder at room temperature. Ship EDTA blood at refrigeration temperature
TURNAROUND:	Sent to Centers for Disease Control and Prevention, turnaround time unavailable

PLESIOMONAS SHIGELLOIDES
DETECTION IN STOOL

METHODOLOGY: CULTURE

RESTRICTIONS:	Done for investigation of foodborne illness only. Contact your local health district before requesting this test.
CPT CODE:	87046
SPECIMEN:	Stool in ParaPak C&S, Modified Carey-Blair or equivalent - fill to line (approximately 5 ml) Unpreserved stool samples must be received within 2 hours of collection
SHIPPING:	Ship preserved samples at room temperature, fresh samples at refrigeration temperature.
TURNAROUND:	Within 4-6 days working days

PLESIOMONAS SHIGELLOIDES
IDENTIFICATION/CONFIRMATION OF REFERRED ISOLATE

METHODOLOGY: BIOCHEMICAL TESTING

RESTRICTIONS: None
CPT CODE: 87077
SPECIMEN: Actively growing pure culture on suitable medium
SHIPPING: Ship at room temperature
TURNAROUND: Within 4-6 working days

PNEUMONIC PLAGUE

SEE: *YERSINIA PESTIS*

POLIOVIRUS

SEE: ENTEROVIRUS

PONTIAC FEVER

SEE: *LEGIONELLA* SPP.

PULSED FIELD GEL ELECTROPHORESIS

RESTRICTIONS: Automatically performed on all isolates of *Salmonella*, *Shigella*, and Enterohemorrhagic *E. coli* submitted to the IBL. Performed for epidemiological purposes only. Contact your local Health District or the state Office of Epidemiology, Food Protection and Immunization (208)334-5939 before requesting this test.
CPT CODE: Not applicable
SPECIMEN: Actively growing pure culture on suitable medium
SHIPPING: Ship at room temperature
TURNAROUND: Not available

Q FEVER

SEE: *COXIELLA BURNETII*

RABIES VIRUS
DIRECT DETECTION IN ANIMAL BRAIN TISSUE

METHODOLOGY: DIRECT FLUORESCENT ANTIBODY

RESTRICTIONS: Contact virology at (208)334-2235 before requesting this test. Testing performed only in cases of human, pet, or domestic animal exposure.
CPT CODE: Not applicable
SPECIMEN: Submit removed head (over 8 lbs) to the Animal Health Lab (208) 332-8570; bats may be submitted directly to the IBL.
SHIPPING: Refrigeration temperature
TURNAROUND: 2 days
This disease must be reported to your local Health District or to the state Office of Epidemiology, Food Protection and Immunization according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

RASH ILLNESS PANEL

Tests Included in Panel: Culture, molecular, or immunological tests, including methods for Varicella Zoster Virus, Herpes Simplex Virus Types 1 & 2, Vaccinia, orthopox viruses and bacteria as indicated by symptomology Tests may be performed individually. See individual agent listing.
RESTRICTIONS: Contact your local health district or the state Office of Epidemiology, Food Protection and Immunization (208)334-5939 before requesting this test.
CPT CODE: Not applicable
SPECIMEN: Roof of lesion in a sterile container
Swab of lesion, dry or in transport medium. Contact lab for details.
Touch-prep (slide) of vesicular fluid
SHIPPING: Ship at refrigeration temperature.
TURNAROUND: Not available
COMMENTS: These tests are recommended for patients exhibiting acute, generalized, vesicular or pustular rash illness. For details on evaluating patients see the CDC poster "Evaluating Patients for Smallpox" (http://www.bt.cdc.gov/agent/smallpox/diagnosis/index.asp)

RESPIRATORY SYNCYTIAL VIRUS
DETECTION IN CLINICAL SAMPLES

METHODOLOGY: CULTURE, DIRECT FLUORESCENT ANTIBODY (DFA)

RESTRICTIONS:	None
CPT CODE:	87280 (DFA), 87252 (culture), 87253 (ID)
SPECIMEN:	Nasopharyngeal, nasal, or throat swab in viral transport medium, nasal aspirate or wash (1ml)
SHIPPING:	Ship at refrigeration temperature.
TURNAROUND:	Negative culture in 14 days. DFA results available within 1 day.
COMMENTS:	Dry swab, wood and calcium alginate swab unacceptable

RICIN TOXIN DETECTION
DETECTION IN NON-CLINICAL SAMPLES

METHODOLOGY: TIME-RESOLVED FLUORESCENCE, PCR

RESTRICTIONS:	**For investigation of intentional release (terrorism) only.** Contact the state Office of Epidemiology, Food Protection and Immunization (208)334-5939 before requesting this test.
CPT CODE:	Not applicable
SPECIMEN:	Plant material in envelope Paper Powder Water, Soil, Food, Drink Environmental surface wipe
TURNAROUND:	Not available

ROUTINE O&P
SEE: PARASITE EXAMINATION, INTESTINAL

RSV
SEE: RESPIRATORY SYNCYTIAL VIRUS

RUBELLA VIRUS
IgM AND IgG ANTIBODY DETECTION

METHODOLOGY: ENZYME IMMUNOASSAY

RESTRICTIONS:	None
CPT CODE:	86762
SPECIMEN:	Acute phase serum or paired sera (0.5 ml)
SHIPPING:	Ship at refrigeration temperature.
TURNAROUND:	IgG Routinely batch tested once per week, IgM upon request

This disease must be reported to your local Health District or to the state Office of Epidemiology, Food Protection and Immunization according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

RUBEOLA VIRUS
SEE: MEASLES VIRUS

SAINT LOUIS ENCEPHALITIS
SEE: ARBOVIRUS TEST LISTINGS

SALMONELLA SPP.
DETECTION IN CLINICAL SAMPLES

METHODOLOGY: CULTURE

RESTRICTIONS:	None
CPT CODE:	87045
SPECIMEN:	Stool in ParaPak C&S, Modified Carey-Blair or equivalent - fill to line (approximately 5 ml) Unpreserved stool samples must be received within 2 hours of collection. Rectal swab
SHIPPING:	Ship preserved samples at room temperature, fresh samples at refrigeration temperature
TURNAROUND:	Negative results available within 2-4 working days
COMMENTS:	Included in routine Enteric Bacterial Culture

This disease must be reported to your local Health District or to the state Office of Epidemiology, Food Protection and Immunization according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

SALMONELLA SPP.
IDENTIFICATION/CONFIRMATION OF REFERRED ISOLATE

METHODOLOGY: BIOCHEMICAL TESTING, SEROTYPING

RESTRICTIONS:	None
CPT CODE:	87077, 87147 x 15
SPECIMEN:	Actively growing pure culture on suitable medium
SHIPPING:	Ship at room temperature
TURNAROUND:	Identification from pure culture usually available within 4-6 working days, unless referral to CDC required

This disease must be reported to your local Health District or to the state Office of Epidemiology, Food Protection and Immunization according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

SALMONELLA SPP.
MOLECULAR SUBTYPING

SEE: PULSED-FIELD GEL ELECTROPHORESIS

SCHISTOSOMA SPP.
DETECTION IN CLINICAL SAMPLES

METHODOLOGY: CONCENTRATION AND MICROSCOPIC EXAMINATION

RESTRICTIONS:	None
CPT CODE:	87177
SPECIMEN:	Stool preserved in both formalin and PVA - fill to line (kits are available from MDH) Urine - 15 ml, no preservatives
SHIPPING:	Ship preserved stool at room temperature, urine at refrigeration temperature
TURNAROUND:	Within 3 working days
COMMENTS:	*S. haematobium* eggs are usually detected in urine but may be found in stool. Eggs of other *Schistosoma* spp. are found primarily in stool. Multiple examinations may be to detect eggs in light or chronic infections.

SCHISTOSOMA SPP.
IDENTIFICATION/CONFIRMATION OF REFERRED SAMPLES

SEE: PARASITE IDENTIFICATION

SCHISTOSOMIASIS
SEE: *SCHISTOSOMA* SPP.

SHIGELLA SPP.
DETECTION IN CLINICAL SAMPLES

METHODOLOGY: CULTURE

RESTRICTIONS: None
CPT CODE: 87045
SPECIMEN: Stool in ParaPak C&S, Modified Carey-Blair or equivalent - fill to line (approximately 5ml)
Unpreserved stool samples must be received within 2 hours of collection
SHIPPING: Ship preserved samples at room temperature, fresh samples at refrigeration temperature
TURNAROUND: Negative results available within 2-4 working days
COMMENTS: Included in routine Enteric Bacterial Culture
This disease must be reported to your local Health District or to the state Office of Epidemiology, Food Protection and Immunization according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

SHIGELLA SPP.
ANTIMICROBIAL SUSCEPTIBILITY TESTING
SEE: ANTIMICROBIAL SUSCEPTIBILITY TESTING

SHIGELLA SPP.
IDENTIFICATION/CONFIRMATION OF REFERRED ISOLATE

METHODOLOGY: BIOCHEMICAL TESTING, SEROTYPING

RESTRICTIONS: None
CPT CODE: 87077, 87147 x 5
SPECIMEN: Actively growing pure culture on suitable medium
SHIPPING: Ship at room temperature
TURNAROUND: Identification from pure culture available within 4-6 working days
This disease must be reported to your local Health District or to the state Office of Epidemiology, Food Protection and Immunization according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

SHIGELLA SPP.
MOLECULAR SUBTYPING
SEE: PULSED-FIELD GEL ELECTROPHORESIS

SMALLPOX
SEE: RASH ILLNESS PANEL
RESTRICTIONS: If smallpox is suspected, contact the state Office of Epidemiology, Food Protection and Immunization (208)334-5939 before requesting this test.

STAPHYLOCOCCAL ENTEROTOXIN B
DETECTION IN NON-CLINICAL SAMPLES

METHODOLOGY: TIME-RESOLVED FLUORESCENCE

RESTRICTIONS:	**For investigation of intentional release (terrorism) only.** Contact the state Office of Epidemiology, Food Protection and Immunization (208)334-5939 before requesting this test.
CPT CODE:	Not applicable
SPECIMEN:	Food Soil Water Environmental surface wipe
TURNAROUND:	Not available

STAPHYLOCOCCUS AUREUS, GASTROINTESTINAL DISEASE DETECTION IN STOOL OR IMPLICATED FOOD

METHODOLOGY: CULTURE

RESTRICTIONS:	Done for investigation of foodborne illness only. Contact your local Health District or the state Office of Epidemiology, Food Protection and Immunization (208)334-5939 before requesting this test.
CPT CODE:	87046 (Stool)
SPECIMEN:	Stool in ParaPak C&S, Modified Carey-Blair or equivalent - fill to line (approximately 5 ml) Implicated food - minimum of 10 g in original container or transferred to sterile container using sterile instruments
SHIPPING:	Ship stool at room temperature, food at refrigeration temperature
TURNAROUND:	Within 4-6 working days

This disease must be reported to your local Health District or to the state Office of Epidemiology, Food Protection and Immunization according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

STAPHYLOCOCCUS AUREUS, GLYCOPEPTIDE/VANCOMYCIN RESISTANT (GRSA/VRSA) CONFIRMATION OF VANCOMYCIN MIC ≥ 16UG/ML

METHODOLOGY: MIC DETERMINATION BY MULTIPLE METHODS

RESTRICTIONS:	None
CPT CODE:	87184 (Disk diffusion), 87181 (E-test), 87186 (Microdilution)
SPECIMEN:	Actively growing pure culture on suitable medium
SHIPPING:	Ship at room temperature
TURNAROUND:	Within 2-5 working days of specimen receipt
COMMENTS:	Call Idaho Bureau of Laboratories (208)334-2235 immediately if GRSA/VRSA is suspected.

STAPHYLOCOCCUS AUREUS, GLYCOPEPTIDE/VANCOMYCIN INTERMEDIATE (GISA/VISA) CONFIRMATION OF VANCOMYCIN MIC ≥ 4 UG/ML

METHODOLOGY: MIC DETERMINATION BY MULTIPLE METHODS

RESTRICTIONS:	None
CPT CODE:	87184 (Disk diffusion), 87181 (E-test), 87186 (Microdilution)
SPECIMEN:	Actively growing pure culture on suitable medium
SHIPPING:	Ship at room temperature
TURNAROUND:	Within 2-5 working days
COMMENTS:	Call the Idaho Bureau of Laboratories at (208) 334-2235 immediately if GISA/VISA is suspected.

STAPHYLOCOCCUS AUREUS, METHICILLIN RESISTANT (MRSA)
IDENTIFICATION/CONFIRMATION OF REFERRED ISOLATE

METHODOLOGY: MIC DETERMINATION BY MULTIPLE METHODS

RESTRICTIONS: None
CPT CODE: 87077 (ID), 87181 (E-test),
SPECIMEN: Actively growing pure culture on suitable medium
SHIPPING: Ship at room temperature
TURNAROUND: Within 2-3 working days

STAPHYLOCOCCUS AUREUS, METHICILLIN RESISTANT (MRSA)
MOLECULAR SUBTYPING
SEE: PULSED-FIELD GEL ELECTROPHORESIS

STREPTOCOCCUS, GROUP A
ANTIMICROBIAL SUSCEPTIBILITY TESTING
SEE: ANTIMICROBIAL SUSCEPTIBILITY TESTING

STREPTOCOCCUS, GROUP A
IDENTIFICATION/CONFIRMATION OF REFERRED ISOLATE

METHODOLOGY: BIOCHEMICAL TESTING, LANCEFIELD GROUPING

RESTRICTIONS: None
CPT CODE: 87077 (culture), 87147 (grouping)
SPECIMEN: Actively growing pure culture on suitable medium
SHIPPING: Ship at room temperature
TURNAROUND: Within 2-4 working days
Invasive disease caused by this agent must be reported to your local Health District or to the state Office of Epidemiology, Food Protection and Immunization according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

STREPTOCOCCUS, GROUP B
ANTIMICROBIAL SUSCEPTIBILITY TESTING
SEE: ANTIMICROBIAL SUSCEPTIBILITY TESTING

STREPTOCOCCUS, GROUP B
IDENTIFICATION/CONFIRMATION OF REFERRED ISOLATE

METHODOLOGY: BIOCHEMICAL TESTING, LANCEFIELD GROUPING

RESTRICTIONS: None
CPT CODE: 87077 (culture), 87147 (grouping)
SPECIMEN: Actively growing pure culture on suitable medium
SHIPPING: Ship at room temperature
TURNAROUND: Within 2-4 working days

STRONGYLOIDES SPP.
DETECTION IN CLINICAL SAMPLES

METHODOLOGY: MICROSCOPIC EXAMINATION

RESTRICTIONS: None
CPT CODE: 87177

SPECIMEN: Stool preserved in both formalin and PVA - fill to line (kits are available from MDH); Duodenal contents (aspiration or Entero-Test capsule)
SHIPPING: Ship preserved stool at room temperature, duodenal contents at refrigeration temperature
TURNAROUND: Within 3 working days

STRONGYLOIDES SPP.
IDENTIFICATION/CONFIRMATION IN REFERRED SAMPLE

SEE: PARASITE, IDENTIFICATION

SYPHILIS
SEROLOGY SCREEN (QUALITATIVE)

METHODOLOGY: VDRL

RESTRICTIONS: None
CPT CODE: 86592
SPECIMEN: Serum (0.5 ml), CSF (0.5ml)
SHIPPING: Ship at refrigeration temperature.
TURNAROUND: Routinely batch tested once per week
This disease must be reported to your local Health District or to the state Office of Epidemiology, Food Protection and Immunization according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

SYPHILIS
SEROLOGY SCREEN (QUANTITATIVE)

METHODOLOGY: VDRLQ

RESTRICTIONS: None
CPT CODE: 86593
SPECIMEN: Serum (0.5 ml), CSF (0.5ml)
SHIPPING: Ship at refrigeration temperature.
TURNAROUND: Routinely batch tested once per week
This disease must be reported to your local Health District or to the state Office of Epidemiology, Food Protection and Immunization according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

SYPHILIS
TREPONEMAL ANTIBODY CONFIRMATION

METHODOLOGY: TPPA

RESTRICTIONS: None
CPT CODE: 86781
SPECIMEN: Serum (0.5 ml)
SHIPPING: Ship at refrigeration temperature.
TURNAROUND: Routinely batch tested once per week
NOTE: Reflex confirmatory TPPA testing is performed on all serum VDRL specimens with results of weakly reactive or greater.
This disease must be reported to your local Health District or to the state Office of Epidemiology, Food Protection and Immunization according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

TAENIA SPP.
IDENTIFICATION/CONFIRMATION IN REFERRED SAMPLE

SEE: PARASITE EXAMINATION, INTESTINAL AND PARASITE IDENTIFICATION

TETANUS
SEE: *CLOSTRIDIUM TETANI*

TOXIC SHOCK
SEE: *STAPHYLOCOCCUS AUREUS* AND *STREPTOCOCCUS*, GROUP A

TREPONEMA PALLIDUM
SEE: *SYPHILIS SEROLOGY*

TRYPANOSOMA BRUCEI SPP.
DETECTION IN CLINICAL SAMPLES/REFERRED SPECIMEN

METHODOLOGY: MICROSCOPIC EXAMINATION

RESTRICTIONS:	None
CPT CODE:	87207
SPECIMEN:	Thick and thin blood films - 3 sets, air-dry EDTA blood tube - filled CSF - as much as possible
SHIPPING:	Ship at room temperature, transport EDTA blood and CSF to lab as soon as possible Transport slides in protective holder
TURNAROUND:	Referred to Centers for Disease Control and Prevention, turnaround time not available
COMMENTS:	Trypomastigotes are present in the blood in largest numbers during febrile periods. Examination of multiple daily blood samples may be necessary for detection.

TRYPANOSOMA CRUZI
DETECTION IN CLINICAL SAMPLES/REFERRED SPECIMEN

METHODOLOGY: MICROSCOPIC EXAMINATION

RESTRICTIONS:	None
CPT CODE:	87207
SPECIMEN:	Thick and thin blood films - 3 sets, air-dry EDTA blood tube - filled Tissue imprints, dried Lesion exudate smears, dried
SHIPPING:	Ship at room temperature Transport slides in protective holder
TURNAROUND:	Referred to Centers for Disease Control and Prevention, turnaround time not available

TRYPANOSOMIASIS, AFRICAN
SEE: *TRYPANOSOMA BRUCEI* SPP.

TRYPANOSOMIASIS, AMERICAN
SEE: *TRYPANOSOMA CRUZI*

TUBERCULOSIS
SEE: *MYCOBACTERIUM TUBERCULOSIS* COMPLEX

TULAREMIA
SEE: *FRANCISELLA TULARENSIS*

UNDULANT FEVER
SEE: *BRUCELLA* SPP.

VACCINIA VIRUS
DETECTION OF DNA IN CLINICAL SAMPLES
SEE ALSO: RASH ILLNESS PANEL

METHODOLOGY: PCR (LABORATORY RESPONSE NETWORK PROTOCOLS)

RESTRICTIONS:	Contact the state Office of Epidemiology, Food Protection and Immunization (208)334-5939 before requesting this test.
CPT CODE:	87798
SPECIMEN:	Roof of lesion in a sterile container Swab of lesion, dry or in transport medium. Contact lab for details. Touch-prep (slide) of vesicular fluid
SHIPPING:	Contact laboratory for transport instructions.
TURNAROUND:	1 day
COMMENTS:	This test is for research use only.

VANCOMYCIN RESISTANT *STAPHYLOCOCCUS AUREUS* (VRSA)
SEE: *STAPHYLOCOCCUS AUREUS*, GLYCOPEPTIDE/VANCOMYCIN RESISTANT (GRSA/VRSA)

VARICELLA ZOSTER VIRUS
ANTIGEN DETECTION
SEE ALSO: RASH ILLNESS PANEL

METHODOLOGY: DIRECT FLUORESCENT ANTIBODY

RESTRICTIONS:	None
CPT CODE:	87290
SPECIMEN:	Scraping or swab from base of lesion in viral transport medium Primary viral isolate in tissue culture
SHIPPING:	Ship clinical sample at refrigeration temperature. Ship primary isolate at room temperature.
TURNAROUND:	Within 1 working day of specimen receipt

VARICELLA ZOSTER VIRUS
DETECTION IN CLINICAL SAMPLES
SEE ALSO: RASH ILLNESS PANEL

METHODOLOGY: CULTURE

RESTRICTIONS:	None
CPT CODE:	87252 (culture), 27253 (ID)
SPECIMEN:	Roof of lesion in a sterile container Swab of lesion in viral transport medium. Vesicular fluid sample in viral transport medium
SHIPPING:	Ship at refrigeration temperature.
TURNAROUND:	14 days to confirm negative culture
COMMENTS:	Dry swab, wood swab, and calcium alginate swabs not acceptable

VARICELLA ZOSTER VIRUS
DETECTION OF DNA IN CLINICAL SAMPLES
SEE ALSO: RASH ILLNESS PANEL

METHODOLOGY: PCR (LABORATORY RESPONSE NETWORK PROTOCOLS)

RESTRICTIONS:	Contact the state Office of Epidemiology, Food Protection and Immunization (208)334-5939 before requesting this test.

CPT CODE: 87798
SPECIMEN: Roof of lesion in a sterile container
Swab of lesion, dry or in transport medium. Contact lab for details.
Touch-prep (slide) of vesicular fluid
SHIPPING: Ship at refrigeration temperature.
TURNAROUND: Not available
COMMENTS: This test is for research use only.

VARICELLA ZOSTER VIRUS
IgM AND IgG ANTIBODY DETECTION

METHODOLOGY: ENZYME IMMUNOASSAY AND INDIRECT FLUORESCENT ANTIBODY

RESTRICTIONS: None
CPT CODE: 86787
SPECIMEN: Acute phase serum or paired sera (0.5 ml)
SHIPPING: Ship at room or refrigeration temperature.
TURNAROUND: Routinely batch tested once per week, IgM on request

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VARIOLA VIRUS
SEE: RASH ILLNESS PANEL
RESTRICTIONS: If smallpox is suspected, contact the state Office of Epidemiology, Food Protection and Immunization (208)334-5939 before requesting this test.

VIBRIO SPP. (INCLUDING *V. CHOLERAE*)
ANTIMICROBIAL SUSCEPTIBILITY TESTING
SEE: ANTIMICROBIAL SUSCEPTIBILITY TESTING

VIBRIO SPP. (INCLUDING *V. CHOLERAE*)
IDENTIFICATION/CONFIRMATION OF REFERRED ISOLATE

METHODOLOGY: BIOCHEMICAL TESTING, SEROTYPING, TOXIN TESTING

RESTRICTIONS: None
CPT CODE: 87077
SPECIMEN: Actively growing pure culture on suitable medium
SHIPPING: Ship at room temperature
TURNAROUND: Identification/confirmation from pure culture within 4-6 working days
COMMENTS: Toxin testing performed at CDC
This disease must be reported to your local Health District or to the state Office of Epidemiology, Food Protection and Immunization according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

VIBRIO SPP. (INCLUDING *V. CHOLERAE*)
DETECTION IN STOOL

METHODOLOGY: CULTURE

RESTRICTIONS: None
CPT CODE: 87046
SPECIMEN: Stool in ParaPak C&S, Modified Carey-Blair or equivalent - fill to line (approximately 5 ml)
Unpreserved stool samples must be received within 2 hours of collection
SHIPPING: Ship preserved samples at room temperature, fresh samples at refrigeration temperature
TURNAROUND: Negative results available in 3-4 working days.

VIRAL GASTROENTERITIS
SEE: NOROVIRUS

VIRAL MENINGITIS
SEE: ENTEROVIRUS

VISA (VANCOMYCIN INTERMEDIATE *STAPHYLOCOCCUS AUREUS*)
SEE: *STAPHYLOCOCCUS AUREUS*, GLYCOPEPTIDE/VANCOMYCIN INTERMEDIATE (GISA/VISA)

VRSA (VANCOMYCIN RESISTANT *STAPHYLOCOCCUS AUREUS*)
SEE: *STAPHYLOCOCCUS AUREUS*, GLYCOPEPTIDE/VANCOMYCIN RESISTANT (GRSA/VRSA)

VZV
SEE: VARICELLA ZOSTER VIRUS

WEST NILE VIRUS
DETECTION OF RNA

METHODOLOGY: PCR
WNV PCR may be performed as part of the Arbovirus PCR Panel.

RESTRICTIONS:	Contact your local Health District or the state Office of Epidemiology, Food Protection and Immunization (208)334-5939 before requesting this test.
CPT CODE:	Not applicable
SPECIMEN:	Mosquitoes (collected by trapping) Birds (oral swab on corvids, tissue on raptors)
SHIPPING:	Ship at refrigeration temperature
TURNAROUND:	1 day for birds, 2 days for mosquitoes
COMMENTS:	This test is for research use only.

This disease must be reported to your local Health District or to the state Office of Epidemiology, Food Protection and Immunization according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

WEST NILE VIRUS
IgM AND IgG ANTIBODY DETECTION
SEE ALSO: ARBOVIRUS SEROLOGY PANEL

METHODOLOGY: ENZYME IMMUNOASSAY WITH REFLEX TO MIA AND PRNT FOR CONFIRMATION

RESTRICTIONS:	Contact your local Health District or the state Office of Epidemiology, Food Protection and Immunization (208)334-5939 before requesting this test.
CPT CODE:	86788 (IgM), 86789 (IgG)
SPECIMEN:	Serum (1 ml) CSF (1.5-2.0 ml)
SHIPPING:	Ship within 24 hours at refrigeration temperature.
TURNAROUND:	Within 1-2 working days

This disease must be reported to your local Health District or to the state Office of Epidemiology, Food Protection and Immunization according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

WESTERN EQUINE ENCEPHALITIS
SEE: ARBOVIRUS TEST LISTINGS

WHOOPING COUGH
SEE: *BORDETELLA PERTUSSIS*

WORM IDENTIFICATION
SEE: PARASITE IDENTIFICATION (ADULT PARASITE)

YERSINIA ENTEROCOLITICA
DETECTION IN STOOL
METHODOLOGY: CULTURE

RESTRICTIONS:	None

CPT CODE: 87046
SPECIMEN: Stool in ParaPak C&S, Modified Carey-Blair or equivalent - fill to line (approximately 5ml)
Unpreserved stool samples must be received within 2 hours of collection
SHIPPING: Ship preserved samples at room temperature, fresh samples at refrigeration temperature
TURNAROUND: Negative results available within 3-4 working days
This disease must be reported to your local Health District or to the state Office of Epidemiology, Food Protection and Immunization according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

YERSINIA ENTEROCOLITICA
IDENTIFICATION/CONFIRMATION OF REFERRED ISOLATE

METHODOLOGY: BIOCHEMICAL TESTING, BIOTYPING

RESTRICTIONS: None
CPT CODE 87077
SPECIMEN: Actively growing pure culture on suitable medium
SHIPPING: Ship at room temperature
TURNAROUND: Identification from pure culture within 4-6 working days, biotyping sent to CDC, turnaround time unavailable
This disease must be reported to your local Health District or to the state Office of Epidemiology, Food Protection and Immunization according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

YERSINIA ENTEROCOLITICA
MOLECULAR SUBTYPING
SEE: PULSED-FIELD GEL ELECTROPHORESIS

YERSINIA PESTIS
ANTIBODY DETECTION

RESTRICTIONS: Contact laboratory at (208) 332-2235 before requesting this test.
CPT CODE: 86793
SPECIMEN: Serum (2 ml)
SHIPPING: Ship at refrigeration temperature.
TURNAROUND: Not available
COMMENTS: Referred to Centers for Disease Control and Prevention
This disease must be reported to your local Health District or to the state Office of Epidemiology, Food Protection and Immunization according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

YERSINIA PESTIS
DETECTION IN CLINICAL SAMPLES

METHODOLOGY: CULTURE AND LABORATORY RESPONSE NETWORK PROTOCOLS

Tests May Include: Biochemical, molecular, and immunological methods
RESTRICTIONS: Contact laboratory at (208) 332-2235 before requesting this test.
CPT CODE: 87081
SPECIMEN: See Appendix G
SHIPPING: Ship at refrigeration temperature.
TURNAROUND: 4 days
This disease must be reported to your local Health District or to the state Office of Epidemiology, Food Protection and Immunization according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)
Note: This organism has been designated as a Select Agent (Select Agent Regulation, 42 CFR, 73, Interim Final Rule). Special handling criteria apply. Please contact the laboratory for special instructions.

YERSINIA PESTIS
IDENTIFICATION/CONFIRMATION OF REFERRED ISOLATE

Tests May Include:	Biochemical, molecular, and immunological methods
RESTRICTIONS:	Contact laboratory at (208) 334-2235 before requesting this test.
CPT CODE:	87077
SPECIMEN:	Actively growing pure culture on suitable medium
SHIPPING:	Ship at room or refrigeration temperature.
TURNAROUND:	2-3 days

This disease must be reported to your local Health District or to the state Office of Epidemiology, Food Protection and Immunization according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)
Note: This organism has been designated as a Select Agent (Select Agent Regulation, 42 CFR, 73, Interim Final Rule). Special handling criteria apply. Please contact the laboratory for special instructions.

Packing and Shipping References

It is the responsibility of the shipper to ensure proper packaging and shipping of all potentially infectious and biological substances. Listed below are some links that provide detailed information.

Biosafety in Microbiological and Biomedical Laboratories (BMBL) 5th Edition:
www.cdc.gov/biosafety/publications/bmbl5/

Saf-T-Pak:
www.saftpak.com/

International Air Transport Association (IATA) Dangerous Goods regulations (DGR):
www.iata.org

Sentinel Laboratory Guidelines for Suspected Agents of Bioterrorism and Emerging Infectious Diseases:
www.asm.org

APPENDIX A. Specimen Requirements for *Bacillus anthracis*

Type of Infection	Specimen Type	Minimum Volume	Collection Comments
Cutaneous anthrax	Vesicle swab	2 swabs	Vesicle should be unroofed and 2 sterile, dry swabs should be soaked in the vesicular fluid.

	Vesicle aspirate	1 ml	An aspirate of the fluid is also an appropriate specimen.
	Eschar swab	2 swabs	Roll swabs beneath the edge of the eschar without removing it.
	Fresh/frozen tissue	1 punch biopsy	For specialty testing, must be preapproved by IBL
Gastrointestinal anthrax	Stool	5 g	If unable to obtain stool, obtain rectal swab by inserting swab 1 inch beyond anal sphincter.
	Rectal swab	1 swab	
Inhalation anthrax	Nasal swab	1 swab	For epidemiologic purposes only. Useful only within 24 hours of exposure.
	Sputum	1 ml	If patient has a productive cough, this is the specimen of choice in the early course of the disease
	Tracheal aspirates, bronchoalveolar wash, etc.	1 ml	
Meningitis	CSF	1 ml	Centrifuge ≥1 ml of fluid
Blood	EDTA blood	1 ml	For molecular testing, must be pre-approved by IBL
	Serum/plasma	2 ml	To be sent to CDC for testing, must be pre-approved by IBL
	Blood culture	5 ml	Collect appropriate blood volume and number of sets per submitting lab's protocol. Collect prior to antibiotic use if possible. Most likely to be positive in later stages of disease.
Other	Pleural fluid	1 ml	

APPENDIX B. Specimen Requirements for *Brucella* spp.

Specimen Type	Minimum Volume	Collection Comments
Blood culture	Refer to manufacturer's recommendation	Collect appropriate blood volume and number of sets per submitting lab's protocol. Collect prior to antibiotic use if possible. Multiple specimens increase possibility of obtaining a positive culture.
Bone Marrow blood culture in bottle fluid	1 ml	Collect appropriate bone marrow volume per manufacturer's recommendation. Some blood culture systems are appropriate for bone marrow.
Abscess material	1 ml	Collect as needed based on clinical presentation. Appropriate Postmortem specimen.
Lymph node, liver/spleen biopsy	1-5 g	Collect as needed based on clinical presentation. Appropriate Postmortem specimen.
Synovial fluid, CSF, other body fluids	1 ml	Collect as needed based on clinical presentation. Appropriate Postmortem specimen.
Whole blood	1 ml	Collect in EDTA, purple top tube. For molecular testing, must be pre-approved by IBL.
Nasal swab	1 swab	For epidemiologic purposes only. Useful only within 24 hours of exposure.
Serum: Acute and Convalescent	2 ml	**Acute-phase** specimen should be collected ASAP after onset of disease. **Convalescent-phase** specimen should be collected >14 days after the acute specimen. Sent to CDC for testing, must be pre-approved by IBL.

APPENDIX C. Specimen Requirements for *Burkholderia* spp.

Specimen Type	Minimum Volume	Collection Comments
Abscess material, tissues	1 ml	Collect tissues and fluids rather than swabs, when possible. Collect as needed based on clinical presentation. Appropriate Postmortem specimen.
CSF, other body fluids	1 ml	Collect as needed based on clinical presentation. Appropriate Postmortem specimen.
Sputum	1 ml	
Skin swab	1 swab	
Urine	1 ml	Collect a midstream clean-catch or a catheterized specimen.
Blood culture	Refer to manufacturer's recommendation	Collect appropriate blood volume and number of sets per submitting lab's protocol. Collect prior to antibiotic use if possible.
Throat or Nasal swab	1 swab	For epidemiologic purposes only. Useful only within 24 hours of exposure.
Whole blood	1 ml	Collect in EDTA, purple top tube. For molecular testing, must be pre-approved by IBL.
Serum	1 ml	Collect in serum separator tube (SST™) or red top tube. For molecular testing, must be pre-approved by IBL.

APPENDIX D. Collection and Transport of Samples for Botulism

Note: Testing (toxin detection and culture) is performed only for patients exhibiting symptoms consistent with botulism. The Idaho Bureau of Laboratories does not currently perform toxin testing but forwards specimens to the Washington Department of Health Laboratories for testing. Botulism testing requires pre-approval by the Division of Public Health. Please ask the requesting physician to contact the state Office of Epidemiology, Food Protection and Immunization (208-334-5939) to order this test. A list of patient medications should accompany specimens, since some medications may interfere with toxin detection.

Special Pathogens Collection and Submission Instructions

Clostridium botulinum

Type of Botulism	Specimen	Collection	Results/Tat	Remarks
Food Botulism	Serum	A 5 - 15 ml specimen (preferred) collected soon after onset of symptoms and before antitoxin is given	All results are from 4 hours to 14 working days for Food and Infant & wound botulism	Advise Lab if any drugs have been given Specimens (food, stool, serum) should be submitted on suspect cases. See WAC 246.100-231 for further details
	Gastric Material	Walnut-size (50 gm)		***For all specimens, unless otherwise specified:***
	Stool	10 - 50 grams (preferably walnut-size). Enema material is acceptable. Obtain specimen from sterile (non-bacteriostatic) water or saline enema. A volume of 20 ml collected after enema is sufficient.		Place specimen in a sterile, leak-proof container, place in plastic bag, then in an insulated shipping container with ice packs
	Vomitus	10 - 15 ml		Ship cold*
	Food	**Unopened food, food remnants, dishwasher-washed/unwashed container**		DO NOT FREEZE
Infant Botulism	Stool	Frequently difficult to obtain a sufficient quantity. Obtain specimen from sterile (non-bacteriostatic) water or saline enema. A volume of 20-30 ml collected is sufficient.		
	Autopsy Specimens	Intestinal samples should be taken from different levels (small bowel, proximal colon, distal colon)		Prior approval by CDC Epidemiology required (206) 418-5500
Wound	Serum	Same as serum above	4-96 hours	Notify Special

Botulism				Bacteriological Pathogens Unit as to when and how specimens are being shipped (206) 418-5452
	Tissue	Representative tissue sample	2-14 working days	
	Swab	Swab place in anaerobic transport media	2-4 working days	Ship ambient temperature

Shipping Requirements

- Notify the laboratory in advance (208-334-2235).
- Collect and transport clinical samples in sterile, leak-proof containers. *Exercise extreme caution in sample handling. Botulism toxin is an extremely potent neurotoxin.*
- Leave foods in their original containers, if possible, or place in sterile leak-proof, unbreakable containers. Place each container in a separate sealed plastic bag to prevent cross-contamination during shipping. Label completely.
- Ship by the most rapid means available.
- Store and ship specimens in anaerobic transport systems at room temperature. Store and ship all other specimens at 4ºC.
- Freezing should be avoided as it decreases recovery of *C. botulinum* and may decrease toxin activity. However, if a delay of more than several days cannot be avoided, freeze samples for storage and ship frozen.

APPENDIX E. Specimen Requirements for *Francisella tularensis*

Type of Infection	Specimen Type	Minimum Volume	Collection Comments
Pulmonary	Sputum, throat swab, tracheal aspirates, bronchoalveolar wash, etc.	1 ml	
	Nasal swab	1 swab	For epidemiologic purposes only. Useful only within 24 hours of exposure.
Ulceroglandular	Ulcer scraping, biopsy, or swab (eye)	1 g 1 swab	Specimen from advancing edge of the lesion not central necrotic area, which is usually secondarily infected
Glandular	Lymph node aspirate, tissue	1 ml 1-5 g	
Septicemia	Blood culture	Refer to manufacturer's recommendation	Collect appropriate blood volume and number of sets per submitting lab's protocol. Collect prior to antibiotic use if possible. Most likely to be positive in later stages of disease.
Meningitis	CSF	1 ml	Centrifuge ≥1 ml of fluid
Misc/Other	Whole blood	1 ml	Collect in EDTA, purple top tube. For molecular testing, must be preapproved by IBL.
	Serum/plasma	2 ml	**Acute-phase** specimen should be collected ASAP after onset of disease. **Convalescent-phase** specimen should be collected >14 days after the acute specimen. Sent to CDC for testing, must be pre-approved by IBL.
Postmortem	Lymph, lung, liver, spleen tissue, bone marrow, CSF	1-5 g 1 ml	

APPENDIX F. Specimen Requirements for Acid Fast Bacilli (AFB)

Table 1. Requirements for Clinical Specimens

Specimen Type	Specimen Requirements	Special Instructions	Rejection Criteria
Abscess Contents, Aspirated Fluid (Transtracheal Aspirates, Wound Material)	Collect as much as possible in a sterile leak proof container	Cleanse skin with alcohol before aspirating sample.	1. Dry swab 2. Specimen with needle attached
Blood	10-ml SPS (yellow top) blood collection tube is preferred. Heparinized blood (green top) is also acceptable.	Disinfect site as for routine blood culture. Mix tube contents immediately after collection. SPS is the referred anticoagulant, as it enhances growth of mycobacteria.	1. Collected in EDTA (inhibits mycobacterial growth even in trace amounts) 2. Coagulated blood 3. <10 ml adult, <5 ml pediatric
Body Fluids (Pleural, Pericardial, Peritoneal, etc.)	Collect as much as possible (10 ml minimum) in a sterile leak proof container. Use an SPS blood collection tube for extremely blood specimens.	Disinfect site with alcohol if collecting by needle and syringe. Since many of these fluids may contain fibrinogen, it may be necessary to add anticoagulant (SPS or heparin) to collection containers.	<10 ml adult <1 ml pediatric
Bone	Submit in sterile container without fixative or preservative.		Specimen submitted in formalin
Bone Marrow	Collect as much as possible in SPS blood collection tube. 5-10 ml is optimal specimen.	Collect aseptically. Mix SPS tube contents immediately following collection.	Collected in EDTA (inhibits mycobacterial growth even in trace amounts).
Bronchoalveolar Lavage or Bronchial Washings	≥5 ml in sterile leak proof container.	Avoid contaminating specimen with tap water. Saprophytic mycobacteria may produce false positive culture or smear results.	<5 ml adults <1 ml pediatric
Bronchial Brushings	Sterile leak proof container		
CSF	≥2 ml in sterile leak proof container	Use maximum volume attainable, for maximum recovery. A high protein, lymphocytosis, and low glucose are typical of tuberculous meningitis.	<2 ml adults

Specimen Type	Specimen Requirements	Special Instructions	Rejection Criteria
Gastric Aspirate/Lavage Fluid	≥5-10 ml (50 ml is optimal) in sterile leak proof container. Early morning, fasting specimen is optimal in order to obtain sputum swallowed during sleep.	Collect on three consecutive mornings. Use sterile saline. Adjust to neutral pH with 100 mg of sodium carbonate if specimen cannot be processed within 4 hours of collection.	1. Specimen that has not been neutralized 2. <5 ml 3. Multiple specimens taken from same day
Skin Lesion Material	Submit biopsy or aspirate specimen in sterile container without fixative or preservative.	For cutaneous ulcer, collect biopsy sample from periphery of lesion, or aspirate material from under margin of lesion. Notify laboratory if infection was acquired outside of U.S.	1. Swab specimens
Sputum	5- 10 ml in sterile, leak proof container. Early morning specimen from deep, productive cough on at least 3 consecutive days. For follow-up of patients on therapy, collect at weekly intervals beginning 3 weeks after initiation of therapy.	Expectorated sputum: Instruct patient as to difference between saliva and sputum. Have patient rinse mouth with water before collecting sputum to minimize contamination with food, mouthwash, oral drugs, etc. Induced sputum: Use sterile hypertonic saline. Indicate on request if specimen is induced, as these watery specimens resemble saliva.	1. 24 hour pooled specimens 2. Multiple specimens taken from same day 3. <5 ml of specimen 4. Expectorated sputum that resembles saliva
Stool	≥1 g in sterile leak proof container		1. Frozen specimens 2. Specimens in preservative
Tissue Biopsy (including Lymph Nodes)	1 g of tissue, if possible, in sterile container without fixative or preservative	Collect aseptically, avoiding indigenous microbial flora. Select caseous portion if available. Do not immerse in saline or other fluid, or wrap in gauze.	1. Specimen submitted in formalin 2. Freezing decreases yield

Specimen Type	Specimen Requirements	Special Instructions	Rejection Criteria
Urine	Collect as much as possible (minimum, 40 ml) of first morning specimen (catheter, clean catch, midstream), in sterile leak proof container. For suprapubic tap, collect as much as possible.	Collect first morning specimen on 3 consecutive days. Organisms accumulate in bladder overnight, so first morning void provides best yield. Specimens collected at other times are dilute and are not optimal.	1. 24 hour pooled specimen 2. Multiple specimens taken from same day 3. <40 ml adult, <10 ml pediatric unless larger volume is not obtainable

Table 2. Requirements for Referred Cultures or "Culture by Courier"

Specimen Type	Specimen Requirements	Rejection Criteria
Agar Slant (LJ, 7H11, or Other), Plate (AFB Positive)	Pure culture, visible growth. Screwcap tubes are preferred, but properly transported plates will be accepted if tubes are not available	1. Contaminated 2. Liquefied 3. Broken in transit 4. No visible growth
Liquid Culture System Bottles (AFB Positive)		1. Broken in transit
Pre-inoculated ESP Bottle, "Culture by Courier"	Call Mycobacteriology laboratory (208)334-2235 to make arrangements and for bottles and growth supplement	1. Broken in transit

APPENDIX G. Specimen Requirements for *Yersinia pestis*

Type of Infection	Specimen Type	Minimum Volume	Collection Comments
Bubonic Plague	Lymph node (bubo) Aspirate	2 ml	
Septicemic Plague	Blood culture	Refer to manufacturer's recommendation	A series of 3 venipuncture specimens taken 15-30 minutes apart is most effective. Collect prior to antibiotic use if possible.
Pneumonic Plague	Sputum	1 ml	"Bloody" sputum is a hallmark of this disease.
	Tracheal aspirates, bronchoalveolar wash, etc.	1 ml	Bronchial or tracheal aspirates are the specimens of choice.
	Nasal/Throat swab	1 swab	For epidemiologic purposes only. Useful only within 24 hours of exposure.
Misc/Other	Whole blood	1 ml	Collect in EDTA, purple top tube. For molecular testing, must be preapproved by IBL.
	Serum/plasma	2 ml	**Acute-phase** specimen should be collected ASAP after onset of disease. **Convalescent-phase** specimen should be collected >14 days after the acute specimen. Sent to CDC for testing, must be preapproved by IBL.
Postmortem	Lymph and lung tissue, bone marrow	1-5 g 1 ml	

Analytical Methods in Clinical Chemistry

General information on the Chemical-Laboratory Response Network can be found at: http://emergency.cdc.gov/lrn/chemical.asp

To request analysis of a chemical agent in a blood or urine specimen, a submission form must be filled out. The form can be found at www.statelab.idaho.gov, under the Clinical Chemistry section. A list of chemical agents tested at IBL is listed below. Turn-around time for reportable results is usually 10-36 hours. Once collected, blood samples should be stored at 4°C; urine samples should be stored at < -20°C (preferably on dry ice).

If specimen samples are to be used for evidentiary proceedings, then proper procedures for collecting, packaging and shipping blood or urine specimens can be found at: http://emergency.cdc.gov/labissues/pdf/shipping-samples.pdf

Visual aids for specimen collection, packaging and shipping are found at:
http://www.bt.cdc.gov/labissues/pdf/chemspecimencollection.pdf -- specimen collection
http://www.bt.cdc.gov/labissues/pdf/chemspecimenshipping-blood.pdf -- blood specimen packaging and shipping
http://www.bt.cdc.gov/labissues/pdf/chemspecimenshipping-urine.pdf -- urine specimen packaging and shipping

A shipping manifest for blood samples can be found at:
http://www.bt.cdc.gov/labissues/pdf/chemshippingform-blood.pdf

A shipping manifest for urine samples can be found at:
http://www.bt.cdc.gov/labissues/pdf/chemshippingform-urine.pdf

Analytical Methods in Clinical Chemistry

Analysis	Method	Specimen Type
Abrine and Ricinine (metabolites of abrin and ricin, respectively)	Liquid Chromatography-Mass Spectrometry	Urine
HNPAA (tetranitromethane metabolite)	Liquid Chromatography-Mass Spectrometry	Urine
Metabolic Toxins Panel (monochloroacetate and monofluoroacetate)	Liquid Chromatography-Mass Spectrometry	Urine
Organophosphate Nerve Agent Metabolites (GB acid, GD acid, GF acid, rVX acid, and VX acid)	Liquid Chromatography-Mass Spectrometry	Urine
Tetramine	Gas Chromatography –Mass Spectrometry	Urine
Toxic Elements (Antimony, Arsenic, Barium, Beryllium, Cadmium, Cesium, Cobalt, Lead, Molybdenum, Platinum, Selenium, Thallium, Tungsten, and Uranium)	Inductively Coupled Plasma-Mass Spectrometry	Urine
Cadmium, Lead, and Mercury	Inductively Coupled Plasma-Mass Spectrometry	Blood
Cyanide	Gas Chromatography -Mass Spectrometry	Blood
Volatile Organic Compounds (chloroform, 1,2-dichloroethane, benzene, carbon tetrachloride, toluene, tetrachloroethene, ethylbenzene, m,p-xylene, o-xylene, styrene)	Gas Chromatography –Mass Spectrometry	Blood

Environmental Microbiology Sampling

Food

Sample Matrix	Tests or Methods	Refs.	Sample Required	Minimum weight Required	Special Collection Procedures	Holding Time
Bacillus cereus,	FOBAC	BAM	Food	25 g		NA
Campylobacter culture,	FOCPY	BAM	Food	25 g	Contact lab	NA
Clostridium perfringens,	FOANP	BAM	Food	25 g	Contact lab	NA
E. coli	FOEC	BAM	Food	25 g		NA
E. coli O157:H7	FO157	BAM	Food	25 g		NA
Enterobacter sakazaii	FOES	BAM	Food	25 g	Contact lab	NA
Enterotoxin detection, *Bacillus cereus*	TOXBC	OXOID	Food	25 g		NA
Enterotoxin detection, Shiga-like toxins, PCR	FOPCR	PCR*	Contact lab	Contact lab	Contact lab	NA
Enterotoxin detection, Shiga-like toxins	TOXEC	Meridian	Contact lab	Contact lab	Contact lab	NA
Fecal coliforms,	FOFC	BAM	Food	25 g		NA
Filth in food or beverages	FOFLT	BAM	Contact lab	Contact lab	Contact lab	NA
Food standard plate count	FOSPC	BAM	Food	25 g		NA
Food Utensil/Surface Counts	FOHPC	BAM	Swab	Trans media		NA
Salmonella/Shigella	FOSAL	BAM	Food	25 g		NA
Staphylococcus aureus	FOSC	BAM	Food	25 g		NA
Total coliforms, f	FOTC	BAM	Food	25 g		NA
Yersinia species	FOYES	BAM	Food	25 g	Contact Lab	
Vibrio species	FOVIB	BAM	Contact lab	Contact lab	Contact lab	NA
Yeast or Mold	FOYM	BAM	Food	25 g		NA

Samples associated with an outbreak or complaints are received from health district environmentalists.

1. Sample should be submitted in the original container. If the outbreak involves commercially prepared food also submit an unopened container of the same lot as the food in question.
2. Samples of larger volumes of foods should be collected using aseptic technique. Clean plastic bags may be used in extraordinary circumstances.
3. Shipped samples should arrive at the laboratory frozen.
4. Submission form should provide case patient symptoms, illness onset and duration.

Drinking Water

Sample Matrix	Tests or Methods	Refs.	Sample Required	Volume Required Minimum	Special Collection Procedures	Holding Time
Total coliform, MMO-MUG	9223B-PA	SM	Water	120 mL		30 hr
E. coli, MUG	9223B-PA	SM	Water	120 mL		30 hr
Total Coliform by Quantitray (Modified MPN)	9223B-QT	SM	Water	120 mL		30 hr
E. coli by Quantitray (Modified MPN*)*	9223 B-QT	SM	Water	120 mL		30 hr
Total Coliform (Membrane Filter)	9222B	SM	Water	120 mL		30 hr
Total Coliform (10 tube MTF)	9221B-10	SM	Water	120 mL		30 hr
Total Coliform (Presence-Absence Broth)	9221D	SM	Water	120 mL		30 hr
Fecal Coliform (MPN)	9221E	SM	Water	120 mL		30 hr
Heterotrophic plate count, drinking water	9215 B	SM	Drinking water	120 mL		8 hr
Aeromonas species	1605	EPA	Drinking Water	120 mL	Ship < 10ºC	30 hr

1. Obtain sample collection bottles and submission forms from the Idaho Bureau of laboratories
2. Read the directions on the back of the submission form.
3. Call the laboratory if you have any questions.
4. Fill in the gray section of the submission form completely and legibly in ink.
5. Fill in the label on the sample collection bottle using a water proof pen. This maintains the integrity of the sample should the sample and the submission form be separated.
6. Collect the sample following the directions.
7. Return the sample to the Idaho Bureau of Laboratories within 30 hours of the time the sample was collected.

SOURCE WATER

Sample Matrix	Tests or Methods	Refs.	Sample Required	Volume Required Minimum	Special Collection Procedures	Holding Time
Total Coliform by Quanti-tray (Modified MPN)	9223B-PA	SM	Water	120 mL	None	8 hr
Total Coliform (MPN)	9221	SM	Water	120 mL	None	8 hr
Fecal coliform	9221E	SM	Water	120 mL	None	8 hr
Heterotrophic plate count, s	9215 B	SM	Water	120 mL	None	8 hr

1. Follow the directions as listed under drinking water except testing of sample must be done within 8 hours of sample collection.

AMBIENT/RECREATIONAL/ WASTEWATER

Sample Matrix	Tests or Methods	Refs.	Sample Required	Volume Required Minimum	Special Collection Procedures	Holding Time
Total Coliform by Quanti-tray (Modified MPN)	9223B-PA	SM	Recreational & ambient water	200 mL	None	8 hr
E. coli by Quanti-tray (Modified MPN)	9223 B-QT	SM	Recreational & ambient waters	200 mL	None	8 hr
E. Coli O157:H7 isolation	EO157	EPA	Water	200 mL (water)	None	8 hr
Enterococcus by Quanti-tray (Modified MPN)	9230 D	SM	Water	200 mL	None	8 hr
Heterotrophic plate count, environmental	9215 B	SM	Environmental water	120 mL	None	8 hr
Legionella sp./environmental	9260 J	SM	Contact lab	Contact lab	Contact lab	Contact lab
Listeria monocytogenes	ELIS	BAM	Water	200 mL	Contact lab	8 hr
Pseudomonas aeruginosa	9213	SM	Water	200 mL	None	8 hr
Total Coliform (MPN tube)	9221	SM	Wastewater	200 mL	None	6 hr
Fecal Coliform/ *E.coli* (MPN)	9221	SM	Wastewater	200	None	6 hr
Yeast or Mold in water	EYM	SM	Contact lab	Contact lab	Contact lab	Contact lab
Identification of Environmental mold	API	6:9610	Contact lab	Contact lab	Contact lab	Contact lab

SLUDGE/BIOSOLIDS

Sample Matrix	Tests or Methods	Refs.	Sample Required	Volume Required Minimum	Special Collection Procedures	Holding Time
Total Coliform (MPN)	9221	SM	Sludge	200 mL	Contact Lab	Contact Lab
Fecal Coliform /*E. coli*	9221	SM	Sludge	200 mL	Contact Lab	Contact Lab
Salmonella	9260	SM	Sludge	200 mL	Contact Lab	Contact Lab

1. Obtain sample collection bottles from the Idaho Bureau of Laboratories.
2. Fill in the grey area of the submission form completely and legibly in ink. Include special testing requests, estimated counts, or any circumstances which may effect the level of contamination in the “Special Instructions” box.
3. See Standard Methods for specific directions.
4. Place samples on ice in such a manner the samples remain cold but not frozen.
5. Samples must reach the laboratory as soon as possible. See above chart.

If you have questions please call the Idaho Bureau of Laboratories, 208-334-2235.

Explanation of References

(1) 40 CFR Part 141. 1989. Safe Drinking Water Act. National Primary Drinking Water Regulations; Total Coliforms (Including Fecal Coliforms and E. coli).

(2) 40 CFR Part 141. 1992. Safe Drinking Water Act. National Primary Drinking Water Regulations, Analytical Techniques Coliform Final Rule.

(3) 40 CFR Part 503 Subpart D. 1992. Standards for the use of disposal of sewage sludge rule.

(4) BioMèrieux. 1996. Manufacturers Instructions API 20 E System 07564B-09/96. API.

(5) Clesceri, L.S, A.E. Greenberg, and A.E. Eaton, eds. 1998. Standard Methods for the Examination of Water and Wastewater. 20th ed. American Public Health Association. Washington DC.

(6) FDA. 2001. Food and Drug Administration Bacteriological Analytical Manual, 8th ed., Revision A. AOAC International, Gaithersburg, MD.

Chemistry Sample Preservation and Holding Times

BACTERIAL TESTS

DETERMINATION	MATRIX [a]	CONTAINER [b]	PRESERVATION	MAXIMUM HOLDING TIME
Coliform, Fecal and Total	W	P,G	Cool, 4°C, 0.008% Na_2S_2O3[c]	6-24 hours [d]
Fecal Streptococci	W	P,G	Cool, 4°C, 0.008% Na_2S_2O3[c]	6-24 hours [d]

INORGANIC TESTS

DETERMINATION	MATRIX [a]	CONTAINER [b]	PRESERVATION	MAXIMUM HOLDING TIME
Acidity	W	P,G	Cool, 4°C	14 days
Alkalinity	W	P,G	Cool, 4°C	14 days
Ammonia	W	P,G	Cool, 4°C, H_2SO_4 to pH<2	28 days
Biochemical Oxygen Demand (BOD)	W	P,G	Cool, 4°C	48 hours
Bromide	W	P,G	None Required	28 days
Chemical Oxygen Demand (COD)	W	P,G	Cool, 4°C, H_2SO_4 to pH<2	28 days
Chloride	W	P,G	None Required	28 days
Chlorine, Total Residual	W	P,G	None Required	24 hours
Color	W	P,G	Cool, 4°C	48 hours
Cyanide, Total and Amenable to Chlorination	W	P,G	Cool, 4°C, NaOH to pH>12, Plus 0.6g Ascorbic Acid	14 days
Cyanide, Weak Acid Dissociable	W	P,G	Cool, 4°C, NaOH to pH >12	14 days
Fluoride	W	P,G	None Required	28 days
Hardness	W	P,G	$HN0_3$ to pH<2	6 months
Hydrogen Ion (pH)	W	P,G	None Required	24 hours
Kjeldahl and Organic Nitrogen	W	P,G	Cool, 4°C, H_2SO_4 to pH<2	28 days
Nitrate	W	P,G	Cool, 4°C	48 hours
Nitrate-Nitrite	W	P,G	Cool, 4°C, H_2SO_4 to pH<2	28 days
Nitrite	W	P,G	Cool, 4°C	48 hours
Orthophosphate	W	P,G	Filter lmmediateiy, Cool, 4°C	48 hours
Oxygen, Dissolved (Probe)	W	G, Bottle and Top	None Required	Analyze immediately
Oxygen, Dissolved (Winkler)	W	G, Bottle and Top	Fix on Site and Store in Dark	8 hours
Phenolics, Total	W	G Only	Cool, 4°C, H_2SO_4 to pH<2	28 days

DETERMINATION	MATRIX [a]	CONTAINER [b]	PRESERVATION	MAXIMUM HOLDING TIME
Phosphorus, Elemental	W	G Only	Cool, 4°C	48 hours
Phosphorus, Total	W	P,G	Cool, 4°C, H_2SO_4 to pH<2	28 days
Residue, Total	W	P,G	Cool, 4°C	7 days
Residue, Filterable (TDS)	W	P,G	Cool, 4°C	7 days
Residue. Nonfilterable (TSS)	W	P,G	Cool, 4°C	7 days
Residue, Settleable	W	P,G	Cool, 4°C	48 hours
Residue, Volatile	W	P,G	Cool, 4°C	7 days
Silica	W	P Only	Cool, 4°C	28 days
Specific Conductance	W	P,G	Cool, 4°C	28 days
Sulfate	W	P,G	Cool, 4°C	28 days
Sulfide	W	P,G	Cool, 4°C, Add Zinc Acetate plus Sodium Hydroxide to pH>9	7 days
Sulfite	W	P,G	None Required	24 hours
Surfactants (MBAS)	W	P,G	Cool, 4°C	48 hours
Tannin and Lignin	W	P,G	Cool, 4°C	28 days
Temperature	W	P,G	None Required	Analyze immediately
Turbidity	W	P,G	Cool, 4°C	48 hours

Metals

DETERMINATION	MATRIX [a]	CONTAINER [b]	PRESERVATION	MAXIMUM HOLDING TIME
Chromium VI	W	P,G	Cool, 4°C	24 hours
Mercury	W	P,G	HNO_3 to pH<2	28 days
	S	P,G	Cool, 4°C	28 days
Metals, except Chromium VI and Mercury	W	P,G	HNO_3 to pH<2	6 months
	S	G, Teflon-Lined Cap	Cool, 4°C	6 months

Organic Tests

DETERMINATION	MATRIX [a]	CONTAINER [b]	PRESERVATION	MAXIMUM HOLDING TIME
Oil and Grease	W	G, Teflon-Lined Cap	Cool, 4°C, H_2SO_4 to pH<2	28 days
Organic Carbon, Total (TOC)	W	P,G	Cool, 4°C, H_2SO_4 to pH<2	28 days
Organic Halogens, Total (TOX)	W	G, Teflon-Lined Cap	Cool, 4°C, H_2SO_4 to pH<2 No headspace	28 days
Organic Halogens, Adsorbable (AOX)	W	G, Teflon-Lined Cap	Cool, 4°C, HNO_3 to pH<2	5 months
Petroleum Hydrocarbons, Total Recoverable	W	G, Teflon-Lined Cap	Cool, 4°C, HCl or H_2SO_4 to pH<2	8 days
Petroleum Hydrocarbons, Total	W	G, Teflon-Lined Cap	Cool, 4°C, HCl or H_2SO_4 to pH<2	7 days until extraction; 40 days after extraction
	S	G, Teflon-Lined Cap	Cool, 4°C	14 days until extraction; 40 days after extraction
Petroleum Hydrocarbons, Volatile (Gasoline-Range Organics)	W	G, Teflon-Lined Septum Cap	Cool, 4°C, HCl to pH<2 No Headspace	14 days
	S	G, Teflon-Lined Cap	Cool, 4°C Minimize Headspace	14 days

Volatile Organics

DETERMINATION	MATRIX [a]	CONTAINER [b]	PRESERVATION	MAXIMUM HOLDING TIME
Purgeable Halocarbons	W	G, Teflon-Lined Septum Cap	No Residual Chlorine Present: HCl to pH<2, Cool, 4°C, No Headspace Residual Chlorine Present: 10% $Na2S_2O_3$, HCl to pH<2, Cool, 4°C, No Headspace	14 days
	S	G, Teflon-Lined Cap or 5035	Cool, 4°C, Minimize Headspace	14 days
Purgeable Aromatic Hydrocarbons (including BTEX and MTBE)	W	G, Teflon-Lined Septum Cap	No Residual Chlorine Present: HCl to pH<2, Cool, 4°C, No Headspace Residual Chlorine Present: 10% $Na2S_2O_3$, HCl to pH<2, Cool, 4°C, No Headspace	14 days
	S	G, Teflon-Lined CaP or 5035	Cool, 4°C, Minimize Headspace	14 days
Acrolein, Acrylonitrile, Acetonitrile	W	G, Teflon-Lined Septum Cap	Adjust pH to 4-5, Cool, 4°C, No Headspace	14 days

Semi-volatile Organics

DETERMINATION	MATRIX [a]	CONTAINER [b]	PRESERVATION	MAXIMUM HOLDING TIME
Petroleum Hydrocarbons, Extractable (Diesel-Range Organics)	W,S	G, Teflon-Lined Cap	Cool, 4°C	7 days until extraction; [e] 40 days after extraction
EDB and DBCP	W,S	G, Teflon-Lined Cap	Cool, 4°C, 3 mg $Na_2S_2O_3$, No Headspace	14 days
Alcohols and Glycols	W,S	G, Teflon-Lined Cap	Cool, 4°C [f]	7 days until extraction; [e] 40 days after extraction
Phenols	W,S	G, Teflon-Lined Cap	Cool, 4°C [f]	7 days until extraction; [e] 40 days after extraction
Phthalate Esters	W,S	G, Teflon-Lined Cap	Cool, 4°C [f]	7 days until extraction; [e] 40 days after extraction
Nitrosamines	W,S	G, Teflon-Lined Cap	Cool, 4°C; Store in dark [f]	7 days until extraction; [e] 40 days after extraction
Organochlorine Pesticides and PCBs	W,S	G, Teflon-Lined Cap	Cool, 4°C [f]	7 days until extraction; [e] 40 days after extraction

DETERMINATION	MATRIX [a]	CONTAINER [b]	PRESERVATION	MAXIMUM HOLDING TIME
Nitroaromatics and Cyclic Ketones	W,S	G, Teflon-Lined Cap	Cool, 4°C; Store in dark [f]	7 days until extraction; [e] 40 days after extraction
Polynuclear Aromatic Hydrocarbons	W,S	G, Teflon-Lined Cap	Cool, 4°C; Store in dark [f]	7 days until extraction; [e] 40 days after extraction
Haloethers	W,S	G, Teflon-Lined Cap	Cool, 4°C [f]	7 days until extraction; [e] 40 days after extraction
Chlorinated Hydrocarbons	W,S	G, Teflon-Lined Cap	Cool, 4°C [f]	7 days until extraction; [e] 40 days after extraction
Organophosphorus Pesticides	W,S	G, Teflon-Lined Cap	Cool, 4°C [f]	7 days until extraction; [e] 40 days after extraction
Nitrogen- and Phosphorus-Containing Pesticides	W,S	G, Teflon-Lined Cap	Cool, 4°C [f]	7 days until extraction; [e] 40 days after extraction
Chlorinated Herbicides	W,S	G, Teflon-Lined Cap	Cool, 4°C [f]	7 days until extraction; [e] 40 days after extraction
Chlorinated Phenolics	W	G, Teflon-Lined Cap	$H_2SO_4$to pH<2, Cool, 4°C [f]	30 days until extraction 30 days after extraction
Resin and Fatty Acids	W	G, Teflon-Lined Cap	NaOH to pH >10, Cool, 4°C [f]	30 days until extraction
				30 days after extraction
Diquat and Paraquat	W	P (250 ml Polypropylene)	Cool, 4°C [f]	7 days until extraction 14 days after extraction
(Safe Drinking Water Act)				30 days after extraction

Toxicity Characteristic Leaching Procedure (TCLP)

DETERMINATION	MATRIX [a]	CONTAINER [b]	PRESERVATION	MAXIMUM HOLDING TIME
Mercury	HW	P,G	Sample: Cool, 4°C TCLP extract: HNO_3 to pH<2	28 days until extraction 28 days after extraction
Metals, except Mercury	HW	P,G	Sample: Cool, 4°C TCLP extract: HNO_3 to pH<2	180 days until extraction 180 days after extraction
Volatile Organics	HW	G, Teflon-Lined Cap	Sample: Cool, 4°C Minimize Headspace TCLP extract: Cool, 4°C, HCl to pH<2, No Headspace	14 days until extraction 14 days after extraction
Semivolatile Organics	HW	G, Teflon-Lined Cap	Sample: Cool, 4°C, Store in Dark [f] TCLP extract: Cool, 4°C, Store in Dark [f]	14 days until TCLP extn; 7 days until extraction 40 days after extraction
Organochlorine Pesticides	HW	G, Teflon-Lined Cap	Sample: Cool, 4°C TCLP extract: Cool, 4°C	14 days until TCLP extn; 7 days until extraction 40 days after extraction
Chlorinated Herbicides	HW	G, Teflon-Lined Cap	Sample: Cool, 4°C TCLP extract: Cool, 4°C	14 days until TCLP extn; 7 days until extraction 40 days after extraction

[a] W = Water, S = Soil or Sediment; HW = Hazardous Waste

[b] P = Polyethylene (Cubitainer Recommended); G = Glass (one Liter Amber Boston Round Recommended)

[c] For chlorinated water samples

[d] The recommended maximum holding time is variable, and is dependent upon the geographical proximity of sample source to the laboratory

[e] Fourteen days until extraction for soil, sediment, and sludge samples.

[f] If the water sample contains residual chlorine, 10% sodium thiosulfate is used to dechlorinate.