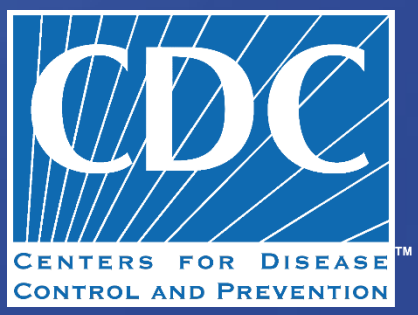
2016

CDC

INFECTIOUS DISEASES LABORATORY TEST DIRECTORY

September 2016, Version 6.7



This document was created under National Center for Emerging and Zoonotic Diseases/ Office of Infectious Diseases (NCEZID/OD). The printed version of CDC's Infectious Diseases Laboratory Test Directory contains information that is current as of September 30, 2016. All information contained herein is subject to change.

For the most current test information, please view the CDC's Infectious Diseases Laboratory Test Directory on: http://www.cdc.gov/laboratory/specimen-submission/list.html.

Test Order

Acanthamoeba Molecular Detection

CDC-10471

Synonym(s)	Free-living ameba, parasite
Pre-Approval Needed	**None**
Supplemental Information Required	**Please provide the following information: history of present illness, exposure history, past medical history, treatment history, CSF results, imaging results. If images are available please upload to: http://www.cdc.gov/dpdx**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	For *Acanthamoeba* and *Balamuthia* molecular detection, tissue is the preferred specimen type; however, these amebae can occasionally be detected in cerebrospinal fluid (CSF; see 'Interference & Limitations' below). For *Naegleria fowleri* molecular detection, CSF is the preferred specimen type. For suspected cases of *Acanthamoeba Keratitis (AK)*, we also accept deep corneal scraping, ocular fluid, and contact lens solution as specimen.
Minimum Volume Required	0.2 g tissue: 1 mL fluids
Storage & Preservation of Specimen Prior to Shipping	Storage and preservation is specimen specific
Transport Medium	Small piece of tissue should be transported in small amount of 0.5x PBS to prevent dryness.
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition. In addition to two patient identifiers (sex, date of birth, name, etc.), provide specimen type and date of collection.
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday - Thursday, overnight to avoid weekend deliveries. Please contact laboratory prior to shipping any specimen and include "Unit 53" on the outside of package. Ship specimen at room temperature, not on dry ice, as an etiologic agent, unless the specimen has been previously frozen. Frozen specimens may be shipped in cold with ice-packs. Please send the shipment tracking number on the day of shipment by e-mail to the CDC Point of Contacts (see below).
Methodology	Real-Time PCR
Turnaround Time	7 Days
Interferences & Limitations	Formalin-fixed specimens are not suitable for molecular studies as formalin fixation may cause DNA degradation. Fresh or frozen specimens, if available, are preferred. Additionally, CSF is NOT the preferred specimen type for *Acanthamoeba* or *Balamuthia* detection, because a negative CSF test result does not completely rule out infections with these amebae.
Additional Information	None
CDC Points of Contact	Jennifer Cope (404) 718-4878 bjt9@cdc.gov Ibne Ali (404) 718-4157 xzn5@cdc.gov

Test Order

Actinomyces – Anaerobic ID

CDC-10483

Synonym(s)	Anaerobe ID, Bacterial Identification, Anaerobe
Pre-Approval Needed	**None**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human, Animal, and Food/Environmental/Medical Devices/Biologics
Acceptable Sample/ Specimen Type for Testing	Anaerobic bacteria from clinically relevant sources, pure culture isolate in suitable anaerobic transport medium (e.g., Chopped Meat Glucose Broth). Prior approval from laboratory required for other sample/specimen types.
Minimum Volume Required	Not Applicable
Storage & Preservation of Specimen Prior to Shipping	Store anaerobically
Transport Medium	Pure culture isolate in Chopped Meat Glucose broth, thioglycolate broth or frozen in TSB plus glycerol
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Ship specimen Monday -Thursday overnight to avoid weekend deliveries, as an etiologic agent. Frozen specimen should be shipped on dry ice Specimen stored at room temperature should be shipped at room temperature
Methodology	16s Sequencing, MALDI-TOF, Phenotypic Testing
Turnaround Time	28 Days
Interferences & Limitations	Specimens from respiratory, vaginal, and fecal sources are not acceptable
Additional Information	None
CDC Points of Contact	David Lonsway (404) 639-2825 Dlonsway@cdc.gov Kamile Rasheed (404) 639-3247 jkr1@cdc.gov

Test Order

Actinomycetes-Aerobic -ID

CDC-10148

Synonym(s)	*Nocardia*, *Streptomyces*
Pre-Approval Needed	**None**
Supplemental Information Required	**Please notify laboratory prior to shipment if this is a critical care specimen**
Supplemental Form	**None**
Performed on Specimens From	Human and Food/Environmental/Medical Devices/Biologics
Acceptable Sample/ Specimen Type for Testing	Pure culture isolate on a suitable agar slant medium; consultation required for other sample/specimen types
Minimum Volume Required	Not Applicable
Storage & Preservation of Specimen Prior to Shipping	Keep specimen refrigerated if unable to ship immediately.
Transport Medium	Suitable agar slant medium
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Ship specimen Monday-Thursday, overnight to avoid weekend deliveries
Methodology	Primary culture based on specimen type, 16S sequence based identification, MALDI-TOF
Turnaround Time	3 Weeks
Interferences & Limitations	The 3 week turnaround time applies to all tests unless biochemical and/or phenotypic analysis are required, which could take up to 2 months for test results.
Additional Information	If available, please provide patient history including if the patient has used a catheter and/or if the patient is immunocompromised.
CDC Points of Contact	John McQuiston (404) 639-0270 zje8@cdc.gov Anne Whitney (404) 639-1374 amw0@cdc.gov

Test Order

Actinomycetes-Aerobic -ID and AST

CDC-10149

Synonym(s)	Actinos
Pre-Approval Needed	**None**
Supplemental Information Required	**Please notify laboratory prior to shipment if this is a critical care specimen**
Supplemental Form	**None**
Performed on Specimens From	Human and Food/Environmental/Medical Devices/Biologics
Acceptable Sample/ Specimen Type for Testing	Pure culture isolate on a suitable agar slant medium; consultation required for other sample/specimen types
Minimum Volume Required	Not Applicable
Storage & Preservation of Specimen Prior to Shipping	Keep specimen refrigerated if unable to ship immediately
Transport Medium	Not Applicable
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Ship specimen Monday-Thursday, overnight to avoid weekend deliveries
Methodology	AST by broth microdilution, Primary Culture based on specimen type, 16S sequence based identification, MALDI-TOF
Turnaround Time	3 Weeks
Interferences & Limitations	The 3 week turnaround time applies to all tests unless biochemical and/or phenotypic analysis are required, which could take up to 2 months for test results.
Additional Information	If available, please provide patient history including if the patient has used a catheter and/or if the patient is immunocompromised.
CDC Points of Contact	John McQuiston (404) 639-0270 zje8@cdc.gov Anne Whitney (404) 639-1374 amw0@cdc.gov

Test Order

Adenovirus Molecular Detection and Typing

CDC-10170

Synonym(s)	None
Pre-Approval Needed	**Erdman, Dean, (404) 639-3727, dde1@cdc.gov** **Kamili, Shifaq, (404) 639-2799, sgk5@cdc.gov**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human, Animal, and Food/Environmental/Medical Devices/Biologics
Acceptable Sample/ Specimen Type for Testing	Upper or lower respiratory tract specimens, eye swabs, stool, serum, blood or plasma, pure culture isolate
Minimum Volume Required	0.25 mL
Storage & Preservation of Specimen Prior to Shipping	Refrigerate all specimens promptly after collection. If specimens can be shipped to CDC within 72 hours of collection, they should be kept refrigerated at 4°C and shipped on gel ice-packs. Freezing should be avoided if possible, as this will reduce virus infectivity. Specimens for virus culture should not be frozen at -20° C. If specimens must be held for >72 hours, they should be promptly frozen at -70°C and shipped on dry ice. Liquid specimens should be aliquoted into properly labeled, leak-proof, unbreakable screw cap vials. Samples should be collected and processed in a manner that prevents cross-contamination between specimens, including changing gloves between specimens.
Transport Medium	Swabs may be shipped in commercial viral transport media
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Ship specimen Monday-Thursday, overnight to avoid weekend deliveries Frozen specimen should be shipped on dry ice Refrigerated specimen should be shipped on cold packs
Methodology	Polymerase Chain Reaction (PCR), Sequencing
Turnaround Time	3 Weeks
Interferences & Limitations	Use only sterile Dacron or rayon swabs with plastic shafts or if available, flocked swabs. Do NOT use calcium alginate swabs or swabs with wooden sticks, as they may contain substances that inactivate some viruses and inhibit some molecular assays.
Additional Information	None
CDC Points of Contact	Dean Erdman (404) 639-3727 dde1@cdc.gov Shifaq Kamili (404) 639-2799 sgk5@cdc.gov

Test Order

Alkhurma Identification

CDC-10274

Synonym(s)	AHFV
Pre-Approval Needed	**Klena, John, (404) 639-0114, irc4@cdc.gov** **Rollin, Pierre, (404) 639-1124, pyr3@cdc.gov**
Supplemental Information Required	**See Supplemental Form**
Supplemental Form	http://www.cdc.gov/ncezid/dhcpp/vspb/pdf/specimen-submission.pdf
Performed on Specimens From	Human and Animal
Acceptable Sample/ Specimen Type for Testing	Frozen tissue, blood, and serum
Minimum Volume Required	1 mL
Storage & Preservation of Specimen Prior to Shipping	Specimen must be placed in plastic screw capped vials, frozen to -70°C, and kept frozen until shipment. See link to supplemental submission form for specific information on various specimen types.
Transport Medium	Not Applicable
Specimen Labeling	Patient name, patient ID #, specimen type, date collected
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday-Thursday overnight to avoid weekend deliveries. Specimen should be shipped frozen on dry ice. See supplemental submission forms for further details. Do not ship specimen without prior consultation and approval.
Methodology	Molecular Typing, Polymerase Chain Reaction (PCR)
Turnaround Time	10 Days
Interferences & Limitations	Specimen must remain frozen, warming or freeze thawing reduces sensitivity. Heparin may cause interference with the molecular tests and should be avoided.
Additional Information	Critical specimens will take less than 4 days to turn around. See link to supplemental submission forms for detailed information.
CDC Points of Contact	John Klena (404) 639-0114 irc4@cdc.gov Pierre Rollin (404) 639-1124 pyr3@cdc.gov

Test Order

Alkhurma Serology

CDC-10285

Synonym(s)	AHFV
Pre-Approval Needed	**Klena, John, (404) 639-0114, irc4@cdc.gov** **Rollin, Pierre, (404) 639-1124, pyr3@cdc.gov**
Supplemental Information Required	**See Supplemental Form**
Supplemental Form	**http://www.cdc.gov/ncezid/dhcpp/vspb/pdf/specimen-submission.pdf**
Performed on Specimens From	Human and Animal
Acceptable Sample/ Specimen Type for Testing	Blood and serum
Minimum Volume Required	1 mL
Storage & Preservation of Specimen Prior to Shipping	Specimen must be kept cold (at or below 4°C). If possible place specimen in plastic screw capped vials. See link to supplemental submission form for specific information on various specimen types.
Transport Medium	Not Applicable
Specimen Labeling	Patient name, patient ID #, specimen type, date collected
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday-Thursday overnight to avoid weekend deliveries. Specimen should be shipped on cold packs or dry ice if frozen. See supplemental submission forms for further details. Do not ship specimen without prior consultation and approval.
Methodology	ELISA
Turnaround Time	10 Days
Interferences & Limitations	Specimen must remain frozen; warming or freeze thawing reduces sensitivity
Additional Information	Critical specimens will take less than 4 days to turn around. See link to supplemental submission forms for detailed information.
CDC Points of Contact	John Klena (404) 639-0114 irc4@cdc.gov Pierre Rollin (404) 639-1124 pyr3@cdc.gov

Test Order

Ameba Identification (*Acanthamoeba*, *Balamuthia*, *Naegleria*)

CDC-10286

Synonym(s)	Free-living ameba, *Acanthamoeba*, *Balamuthia*, *Naegleria fowleri*
Pre-Approval Needed	**None**
Supplemental Information Required	**Please provide the following information: history of present illness, exposure history, past medical history, treatment history, CSF results, imaging results** **If images are available please upload to: http://www.cdc.gov/dpdx**
Supplemental Form	**None**
Performed on Specimens From	Human and Animal
Acceptable Sample/ Specimen Type for Testing	Fresh, unfixed tissue and Paraffin-embedded and formalin-fixed tissue, cerebrospinal fluid (CSF), biopsy specimen, deep corneal scrapings, and ocular fluids
Minimum Volume Required	1 mL fluids; 0.2 g tissue
Storage & Preservation of Specimen Prior to Shipping	CSF and fresh, unfixed tissue should be kept at ambient temperatures. Paraffin-embedded and formalin-fixed tissue should be kept at room temperature. Send a few H&E-stained slides and a few (about 6) unstained slides for IHC test, or Paraffin-embedded tissue block. Unfixed deep scraping and biopsy materials for identification of free-living amoeba are usually very small and may dry if they are not stored in proper fluid such as 0.5x PBS or “amoeba saline” (see composition in the 'Additional Information'). These specimens should be transported to the laboratory within 24 hours.
Transport Medium	Care should be taken to pack glass slides securely, as they can be damaged in shipment if not packed in a crush-proof container. For deep scraping and biopsy materials please transport in ameba saline solution, or in 0.5x PBS.
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition. In addition to two patient identifiers (sex, date of birth, name, etc.), provide specimen type and date of collection.
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday-Thursday, overnight. Please contact laboratory prior to shipping any specimen and include "Unit 53" on the outside of package, and send the shipment tracking number on the day of shipment by e-mail to the CDC Point of Contacts (see below). Ship all fresh specimens such as CSF, tissue biopsy (e.g., brain, lungs, skin) and all deep corneal scraping, etc., as an etiologic agent, within 24 hours of collection. Fresh, unfixed specimens (i.e., CSF and tissue), and formalin-fixed tissue specimens should be sent at ambient temperature by overnight priority mail. Please ship these specimens separately from other chilled or frozen samples being shipped. If specimen has been previously frozen, please send these specimens by overnight priority mail on ice-packs.
Methodology	Polymerase Chain Reaction (PCR), Indirect Immunofluorescence (IIF), Immunohistochemical (IHC) staining plus microscopy, Microscopy
Turnaround Time	7 Days
Interferences & Limitations	For molecular detection, CSF is the preferred specimen type for *N. fowleri* only, and it is NOT the preferred specimen type for *Acanthamoeba* or *Balamuthia*

	detection. A negative CSF test result does not completely rule out infection with *Acanthamoeba* or *Balamuthia*. Fresh or frozen (unfixed) tissue specimens are preferred for *Balamuthia* or *Acanthamoeba* detection. Formalin-fixed specimens are not suitable for molecular studies as formalin fixation may cause DNA degradation. Fresh or frozen specimens, if available, are preferred over the formalin-fixed specimens.
Additional Information	Include the address of sender and physician contact information with the specimen. For deep scraping and biopsy materials please provide the following information to the laboratorians: patient name (first, last and middle initials), age & date of birth, sex, date specimen collected, Specimen source (cornea, vitreous fluid), specimen type (deep scraping, biopsy, vitreous fluid), suspected infection (keratitis, conjunctivitis, endophthalmitis), transport medium used. Ameba saline, 1X stock: Sodium chloride (NaCl) 0.120g Magnesium sulfate (MgSO4.7HOH) 0.004 g Sodium phosphate, dibasic (Na2HPO4) 0.142g Potassium phosphate, monobasic (KH2P O4) 0.136g Calcium chloride (CaCL2.2HOH) 0.004g Double distilled water to 1000.0 mL
CDC Points of Contact	Jennifer Cope (404) 718-4878 bjt9@cdc.gov Ibne Ali (404) 718-4157 xzn5@cdc.gov If you are calling outside of regular business hours, please call the CDC Emergency Operations Center (EOC) (770) 488-7100

Test Order

Ameba Serology (*Acanthamoeba*, *Balamuthia*, *Naegleria*)

CDC-10287

Synonym(s)	Free-living ameba, *Acanthamoeba*, *Balamuthia*, *Naegleria fowleri*
Pre-Approval Needed	**None**
Supplemental Information Required	**Please provide the following information: history of present illness, exposure history, past medical history, treatment history, CSF results, imaging results** **If images are available please upload to: http://www.cdc.gov/dpdx**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Sera (two specimen taken 2 weeks apart)
Minimum Volume Required	1 mL
Storage & Preservation of Specimen Prior to Shipping	Serum specimens can be collected from the patient in a red-top tube (plain vacuum tube with no additive) or a serum-separator tube (tiger top) tube (red/gray speckled top with gel in the tube). Please centrifuge the specimen, and if possible, send serum only. If using a plain red-top tube, you must separate the serum before shipping and send the serum only. Should be kept refrigerated or frozen.
Transport Medium	Not Applicable
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition. In addition to two patient identifiers (sex, date of birth, name, etc.), provide specimen type and date of collection.
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday-Thursday, overnight. Please contact laboratory prior to shipping any specimen and include "Unit 53" on the outside of package. Serum samples should be shipped refrigerated or frozen and packed with cold packs.
Methodology	Indirect Immunofluorescence Antibody (IFA) assay
Turnaround Time	14 Days
Interferences & Limitations	The Ameba Serology test has limited diagnostic value for three reasons: 1. This test cannot differentiate between an old infection (or exposure) and an acute infection. 2. For immunocompromised patients (which is the case for most *Acanthamoeba* infections, and some of the *Balamuthia* infections), there may not be any antibody response in the infected patients. 3. There may not be enough time to mount an antibody response during an active N. fowleri (PAM) infection since the time from the onset of infection to fulminant disease (and death) is usually only 2-8 days.
Additional Information	Include the address of sender and physician contact information with the specimen
CDC Points of Contact	Jennifer Cope (404) 718-4878 bjt9@cdc.gov Ibne Ali (404) 718-4157 xzn5@cdc.gov If you are calling outside of regular business hours, please call the CDC Emergency Operations Center (EOC) (770) 488-7100

Test Order

Ameba Special Study

CDC-10288

Synonym(s)	None	
Pre-Approval Needed	**Cope, Jennifer, (404) 718-4878, bjt9@cdc.gov** **Ali, Ibne, (404) 718-4157, xzn5@cdc.gov**	
Supplemental Information Required	**None**	
Supplemental Form	**None**	
Performed on Specimens From	Human, Animal, and Food/Environmental/Medical Devices/Biologics	
Acceptable Sample/ Specimen Type for Testing	To be determined	
Minimum Volume Required	To be determined	
Storage & Preservation of Specimen Prior to Shipping	To be determined	
Transport Medium	To be determined	
Specimen Labeling	To be determined	
Shipping Instructions which Include Specimen Handling Requirements	To be determined	
Methodology		
Turnaround Time		
Interferences & Limitations	To be determined	
Additional Information	To be determined	
CDC Points of Contact	Jennifer Cope (404) 718-4878 bjt9@cdc.gov Ibne Ali (404) 718-4157 xzn5@cdc.gov	If you are calling outside of regular business hours, please call the CDC Emergency Operations Center (EOC) (770) 488-7100

Test Order

Anaerobic Bacteria Identification

CDC-10227

Synonym(s)	Anaerobe ID, Bacterial Identification, Anaerobe
Pre-Approval Needed	**None**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human, Animal, and Food/Environmental/Medical Devices/Biologics
Acceptable Sample/ Specimen Type for Testing	Anaerobic bacteria from clinically relevant sources, pure culture isolate in suitable anaerobic transport medium (e.g., Chopped Meat Glucose Broth). Prior approval from laboratory required for other sample/specimen types.
Minimum Volume Required	Not Applicable
Storage & Preservation of Specimen Prior to Shipping	Store anaerobically
Transport Medium	Pure culture isolate in Chopped Meat Glucose broth, thioglycolate broth or frozen in TSB plus glycerol
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Ship specimen Monday -Thursday overnight to avoid weekend deliveries, as an etiologic agent. Frozen specimen should be shipped on dry ice Specimen stored at room temperature should be shipped at room temperature
Methodology	16S Sequencing, MALDI-TOF, Phenotypic Testing
Turnaround Time	28 Days
Interferences & Limitations	Specimen from respiratory, vaginal, and fecal sources are not acceptable
Additional Information	See separate test order for *C. difficile*
CDC Points of Contact	David Lonsway (404) 639-2825 Dlonsway@cdc.gov Kamile Rasheed (404) 639-3247 jkr1@cdc.gov

Test Order

Anaplasma Molecular Detection

CDC-10290

Synonym(s)	Human granulocytic anaplasmosis
Pre-Approval Needed	**None**
Supplemental Information Required	**Prior approval is required if the following information is not provided: - Suspected Agent - Travel and exposure history (including animals, arthropods, etc.) - Date of illness onset (and time if available) - Specimen type (e.g., serum, whole blood, tissue, etc.) - Test requested - Brief clinical summary (including details of antibiotic therapy and dates) and pertinent clinical findings**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Acute samples only, anticoagulated whole blood collected in Ethylenediaminetetraacetic acid (EDTA) treated tubes preferred; serum; fresh tissue biopsy
Minimum Volume Required	1.0 mL
Storage & Preservation of Specimen Prior to Shipping	Ideally keep specimen at a refrigerated temperature not frozen. If previously frozen, then keep specimen frozen.
Transport Medium	Ethylenediaminetetraacetic acid (EDTA) blood tubes for blood; tissue in a sample collection tube
Specimen Labeling	Patient name and date of birth
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday-Thursday, overnight to avoid weekend deliveries. Specimen should be shipped refrigerated on cold packs.
Methodology	Real Time Polymerase Chain Reaction (PCR), Sequencing
Turnaround Time	6 Weeks
Interferences & Limitations	Hemolysis in whole blood specimen will interfere with results. Multiple freeze thaw cycles and sample storage above refrigerated temperatures will interfere with proper nucleic acid extraction. If a specimen is drawn at convalescence it will reduce the chance of the target organism being present in blood. Avoid collection of blood specimen in heparin tubes.
Additional Information	The Rickettsial Zoonoses Branch Reference Diagnostic Laboratory aids State Laboratories in diagnosis of difficult samples/cases or if specialized tests are needed. Routine diagnostic samples should be sent to your State Laboratory or a commercial laboratory.
CDC Points of Contact	Cecilia Kato (404) 639-1075 ckato@cdc.gov Christopher Paddock (404) 639-1309 cdp9@cdc.gov

Test Order

Anaplasma Serology

CDC-10292

Synonym(s)	Human granulocytic anaplasmosis
Pre-Approval Needed	**None**
Supplemental Information Required	**Prior approval is required if the following information is not provided: - Suspected Agent - Travel and exposure history (including animals, arthropods, etc.) - Date of illness onset (and time if available) - Specimen type (e.g., serum, whole blood, tissue, etc.) - Test requested - Brief clinical summary (including details of antibiotic therapy and dates) and pertinent clinical findings**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Serum -acute (during active stage of illness) -convalescent (2-4 weeks after acute stage)
Minimum Volume Required	1.0 mL
Storage & Preservation of Specimen Prior to Shipping	Ideally keep specimen at a refrigerated temperature not frozen. If previously frozen, then keep specimen frozen.
Transport Medium	Not Applicable
Specimen Labeling	Patient name and date of birth
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday-Thursday, overnight to avoid weekend deliveries. Specimen should be shipped refrigerated on cold packs.
Methodology	Indirect Fluorescence Assay (IFA)
Turnaround Time	6 Weeks
Interferences & Limitations	Multiple freeze thaw cycles may interfere with antigen binding. Use sterile technique to avoid contamination of sample as this may compromise the sample and interfere with the ability to get accurate results. Acute and convalescent serum is needed for accurate diagnosis and if unable to collect both please contact laboratory prior to shipping.
Additional Information	The Rickettsial Zoonoses Branch Reference Diagnostic Laboratory aids State Laboratories in diagnosis of difficult samples/cases or if specialized tests are needed. Routine diagnostic samples should be sent to your State Laboratory or a commercial laboratory.
CDC Points of Contact	Cecilia Kato (404) 639-1075 ckato@cdc.gov Christopher Paddock (404) 639-1309 cdp9@cdc.gov

Test Order

Anaplasma Special Study

CDC-10291

Synonym(s)	Human granulocytic anaplasmosis
Pre-Approval Needed	**Kato, Cecilia, (404) 639-1075, ckato@cdc.gov** **Paddock, Christopher, (404) 639-1309, cdp9@cdc.gov**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human, Animal, and Food/Environmental/Medical Devices/Biologics
Acceptable Sample/ Specimen Type for Testing	To be determined
Minimum Volume Required	To be determined
Storage & Preservation of Specimen Prior to Shipping	To be determined
Transport Medium	To be determined
Specimen Labeling	To be determined
Shipping Instructions which Include Specimen Handling Requirements	To be determined
Methodology	Molecular detection, Serology, Culture, Immunohistochemistry (IHC), Other
Turnaround Time	
Interferences & Limitations	To be determined
Additional Information	To be determined
CDC Points of Contact	Cecilia Kato (404) 639-1075 ckato@cdc.gov Christopher Paddock (404) 639-1309 cdp9@cdc.gov

Test Order

Angiostrongylus cantonensis Molecular Detection

CDC-10472

Synonym(s)	Angiostrongyliasis, Rat lungworm, parasite
Pre-Approval Needed	**None**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human, Animal, and Food/Environmental/Medical Devices/Biologics
Acceptable Sample/ Specimen Type for Testing	Cerebrospinal fluid (CSF); tissue
Minimum Volume Required	200 uL
Storage & Preservation of Specimen Prior to Shipping	Storage and preservation is specimen specific
Transport Medium	Not Applicable
Specimen Labeling	Test subject to CLIA regulations require two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday – Thursday, overnight to avoid weekend deliveries. Ship specimen on wet ice (cold pack) as an etiologic agent.
Methodology	Real Time PCR
Turnaround Time	21 Days
Interferences & Limitations	Formalin fixed specimens are not suitable for molecular studies
Additional Information	None
CDC Points of Contact	Yvonne Qvarnstrom (404) 718-4123 bvp2@cdc.gov Theresa Benedict (404) 718-4124 tgd5@cdc.gov

Test Order

Antimicrobial Susceptibility Testing - Bacterial

CDC-10223

Synonym(s)	AST, Sensitivity, MIC testing
Pre-Approval Needed	**None**
Supplemental Information Required	**Confirmation of unusual resistance is required before sending specimen for testing; please specify antibacterial agent of interest and provide previous results and testing method**
Supplemental Form	**None**
Performed on Specimens From	Human, Animal, and Food/Environmental/Medical Devices/Biologics
Acceptable Sample/ Specimen Type for Testing	Pure culture isolate on suitable agar medium
Minimum Volume Required	Not Applicable
Storage & Preservation of Specimen Prior to Shipping	Keep refrigerated if isolate cannot be shipped immediately. For fastidious organisms (e.g. *Neisseria meningitidis*), store at room temperature.
Transport Medium	Pure culture isolate on suitable agar medium or frozen in TSB plus glycerol
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Ship specimen Monday-Thursday overnight to avoid weekend deliveries, as an etiologic agent. Refrigerated specimen should be shipped on ice packs Specimen stored at room temperature should be shipped at room temperature
Methodology	Broth Microdilution, Disk Diffusion, Additional Phenotypic Testing, Molecular detection of resistance markers
Turnaround Time	18 Days
Interferences & Limitations	None
Additional Information	None
CDC Points of Contact	David Lonsway (404) 639-2825 Dlonsway@cdc.gov Kamile Rasheed (404) 639-3247 JRasheed@cdc.gov

Test Order

Arbovirus Isolation and Identification

CDC-10281

Synonym(s)	Arbo-Isolation, Chikungunya, Zika Virus
Pre-Approval Needed	**None**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Serum, cerebrospinal fluid (CSF), and fresh frozen tissue specimen
Minimum Volume Required	0.5 mL
Storage & Preservation of Specimen Prior to Shipping	Specimen should be kept at 4°C or colder
Transport Medium	Not Applicable
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday-Thursday, overnight to avoid weekend deliveries Frozen specimen should be shipped on dry ice Ship to: Centers for Disease Control & Prevention 3156 Rampart Road (CSU Foothills Campus) Fort Collins, Colorado 80521
Methodology	Isolation in cell culture
Turnaround Time	2 Weeks
Interferences & Limitations	None
Additional Information	None
CDC Points of Contact	Robert Lanciotti (970) 221-6440 rsl2@cdc.gov

Test Order

Arbovirus Molecular Detection

CDC-10280

Synonym(s)	Arbo-RT-PCR, Chikungunya, Zika Virus
Pre-Approval Needed	**None**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Serum, cerebrospinal fluid (CSF), and fresh frozen tissue specimen
Minimum Volume Required	0.25 mL
Storage & Preservation of Specimen Prior to Shipping	Specimen should be kept at 4°C or colder
Transport Medium	Not Applicable
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday-Thursday, overnight to avoid weekend deliveries Frozen specimen should be shipped on dry ice Ship to: Centers for Disease Control & Prevention 3156 Rampart Road (CSU Foothills Campus) Fort Collins, Colorado 80521
Methodology	RT-Polymerase Chain Reaction (PCR)
Turnaround Time	1 Week
Interferences & Limitations	Hemolysis can affect the test results
Additional Information	None
CDC Points of Contact	Robert Lanciotti (970) 221-6440 rsl2@cdc.gov

Test Order

Arbovirus Neutralization Antibody

CDC-10283

Synonym(s)	Arbo-PRNT, Chikungunya, Zika Virus
Pre-Approval Needed	**None**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Serum and cerebrospinal fluid (CSF)
Minimum Volume Required	0.5 mL
Storage & Preservation of Specimen Prior to Shipping	Specimen should be kept at 4°C or colder
Transport Medium	Not Applicable
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday-Thursday, overnight to avoid weekend deliveries Frozen specimen should be shipped on dry ice Ship to: Centers for Disease Control & Prevention 3156 Rampart Road (CSU Foothills Campus) Fort Collins, Colorado 80521
Methodology	Plaque reduction neutralization
Turnaround Time	2 Weeks
Interferences & Limitations	None
Additional Information	None
CDC Points of Contact	Robert Lanciotti (970) 221-6440 rsl2@cdc.gov

Test Order

Arbovirus Serology

CDC-10282

Synonym(s)	Arbo-Serology, Chikungunya, Zika Virus
Pre-Approval Needed	**None**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Serum and cerebrospinal fluid (CSF)
Minimum Volume Required	0.25 mL
Storage & Preservation of Specimen Prior to Shipping	Specimen should be kept at 4°C or colder
Transport Medium	Not Applicable
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday-Thursday, overnight to avoid weekend deliveries Frozen specimen should be shipped on dry ice Ship to: Centers for Disease Control & Prevention 3156 Rampart Road (CSU Foothills Campus) Fort Collins, Colorado 80521
Methodology	ELISA, MIA
Turnaround Time	1 Week
Interferences & Limitations	None
Additional Information	None
CDC Points of Contact	Robert Lanciotti (970) 221-6440 rsl2@cdc.gov

Test Order

Arbovirus Special Study

CDC-10284

Synonym(s)	Zika Virus
Pre-Approval Needed	**Lanciotti, Robert, (970) 221-6440, rsl2@cdc.gov**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	To be determined
Minimum Volume Required	To be determined
Storage & Preservation of Specimen Prior to Shipping	To be determined
Transport Medium	To be determined
Specimen Labeling	To be determined
Shipping Instructions which Include Specimen Handling Requirements	To be determined
Methodology	
Turnaround Time	
Interferences & Limitations	To be determined
Additional Information	To be determined
CDC Points of Contact	Robert Lanciotti (970) 221-6440 rsl2@cdc.gov

Test Order

Arenavirus (New World) - Serology

CDC-10484

Synonym(s)	Junin virus, Machupo virus, Guanarito virus, Chapare virus, Sabia virus serology
Pre-Approval Needed	**Klena, John, (404) 639-0114, irc4@cdc.gov** **Rollin, Pierre, (404) 639-1124, pyr3@cdc.gov**
Supplemental Information Required	**See Supplemental Form**
Supplemental Form	http://www.cdc.gov/ncezid/dhcpp/vspb/pdf/specimen-submission.pdf
Performed on Specimens From	Human and Animal
Acceptable Sample/ Specimen Type for Testing	Blood, Serum
Minimum Volume Required	1.0 mL
Storage & Preservation of Specimen Prior to Shipping	Specimen must be kept cold (at or below 4°C). If possible place specimen in plastic screw capped vials. See link to supplemental submission form for specific information on various specimen types.
Transport Medium	Not Applicable
Specimen Labeling	Patient Name, patient ID #, specimen type, date collected
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday-Thursday overnight to avoid weekend deliveries. Specimen should be shipped on cold packs or dry ice if frozen. See supplemental submission forms for further details. Do not ship specimen without prior consultation and approval.
Methodology	ELISA
Turnaround Time	10 Days
Interferences & Limitations	None
Additional Information	Critical specimens will take less than 4 days to turn around. See link to supplemental submission forms for detailed information.
CDC Points of Contact	John Klena (404) 639-0114 irc4@cdc.gov Pierre Rollin (404) 639-1124 pyr3@cdc.gov

Test Order

Arenavirus (New World) Identification

CDC-10293

Synonym(s)	New World *Arenavirus,* South American hemorrhagic fever viruses
Pre-Approval Needed	**Klena, John, (404) 639-0114, irc4@cdc.gov** **Rollin, Pierre, (404) 639-1124, pyr3@cdc.gov**
Supplemental Information Required	**See Supplemental Form**
Supplemental Form	**http://www.cdc.gov/ncezid/dhcpp/vspb/pdf/specimen-submission.pdf**
Performed on Specimens From	Human and Animal
Acceptable Sample/ Specimen Type for Testing	Frozen tissue, blood and serum
Minimum Volume Required	1 mL
Storage & Preservation of Specimen Prior to Shipping	Specimen must be placed in plastic screw capped vials, frozen to -70°C, and kept frozen until shipment. See link to supplemental submission form for specific information on various specimen types.
Transport Medium	Not Applicable
Specimen Labeling	Patient name, patient ID #, specimen type, date collected
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday-Thursday overnight to avoid weekend deliveries. Specimen should be shipped frozen on dry ice. See supplemental submission forms for further details. Do not ship specimen without prior consultation and approval.
Methodology	Molecular Typing, Polymerase Chain Reaction (PCR)
Turnaround Time	10 Days
Interferences & Limitations	Specimen must remain frozen; warming or freeze thawing reduces sensitivity. Heparin may cause interference with the molecular tests and should be avoided.
Additional Information	Critical specimens will take less than 4 days to turn around. See link to supplemental submission forms for detailed information.
CDC Points of Contact	John Klena (404) 639-0114 irc4@cdc.gov Pierre Rollin (404) 639-1124 pyr3@cdc.gov

Test Order

Arenavirus (Old World) Identification

CDC-10294

Synonym(s)	Old World *Arenavirus*
Pre-Approval Needed	**Klena, John, (404) 639-0114, irc4@cdc.gov** **Rollin, Pierre, (404) 639-1124, pyr3@cdc.gov**
Supplemental Information Required	**See Supplemental Form**
Supplemental Form	http://www.cdc.gov/ncezid/dhcpp/vspb/pdf/specimen-submission.pdf
Performed on Specimens From	Human and Animal
Acceptable Sample/ Specimen Type for Testing	Frozen tissue, blood and serum
Minimum Volume Required	1 mL
Storage & Preservation of Specimen Prior to Shipping	Specimen must be placed in plastic screw capped vials, frozen to -70°C, and kept frozen until shipment. See link to supplemental submission form for specific information on various specimen types.
Transport Medium	Not Applicable
Specimen Labeling	Patient name, patient ID #, specimen type, date collected
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday-Thursday overnight to avoid weekend deliveries. Specimen should be shipped frozen on dry ice. See supplemental submission forms for further details. Do not ship specimen without prior consultation and approval.
Methodology	Molecular Typing, Polymerase Chain Reaction (PCR)
Turnaround Time	10 Days
Interferences & Limitations	Specimen must remain frozen; warming or freeze thawing reduces sensitivity. Heparin may cause interference with the molecular tests and should be avoided.
Additional Information	Critical specimens will take less than 4 days to turn around. See link to supplemental submission forms for detailed information.
CDC Points of Contact	John Klena (404) 639-0114 irc4@cdc.gov Pierre Rollin (404) 639-1124 pyr3@cdc.gov

Test Order

Babesia Molecular Detection

CDC-10473

Synonym(s)	Babesiosis; *Babesia microti*; *Babesia duncani,* parasite
Pre-Approval Needed	**None**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Blood
Minimum Volume Required	200 uL
Storage & Preservation of Specimen Prior to Shipping	Collect a 1-5 ml blood sample in Vacutainer® EDTA tubes prior to anti-parasitic therapy and ship at 4°C
Transport Medium	Not Applicable
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday - Thursday, overnight to avoid weekend deliveries. Ship specimen on wet ice (cold pack) as an etiologic agent.
Methodology	Conventional PCR, Real Time PCR
Turnaround Time	21 Days
Interferences & Limitations	None
Additional Information	None
CDC Points of Contact	Yvonne Qvarnstrom (404) 718-4123 bvp2@cdc.gov Samaly dos Santos Souza (404) 718-4786 ynp4@cdc.gov

Test Order

Babesiosis Serology

CDC-10456

Synonym(s)	*Babesia microti*; *Babesia duncani*; *Babesia divergens,* babesiosis, parasite
Pre-Approval Needed	**None**
Supplemental Information Required	**Exposure and travel history, include other relevant risk factors (ticks, transfusion); clinical symptoms, treatment and relevant lab results.**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Serum and plasma
Minimum Volume Required	0.5mL
Storage & Preservation of Specimen Prior to Shipping	No specific requirements
Transport Medium	Not Applicable
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday – Thursday, overnight to avoid weekend deliveries. Ship specimen at room temperature, not on dry ice, as an etiologic agent.
Methodology	Indirect Fluorescent Antibody assay, Antibody detection
Turnaround Time	18 Days
Interferences & Limitations	Substances known to interfere with immunoassays include: bilirubin, lipids, and hemoglobin
Additional Information	None
CDC Points of Contact	Hilda Rivera (404) 718-4100 igi2@cdc.gov DPDx (404) 718-4120 dpdx@cdc.gov

Test Order

Bacillus anthracis Detection in Clinical Specimens

CDC-10204

Synonym(s)	Anthrax PCR
Pre-Approval Needed	**Bacterial Special Pathogens Branch (CDC), , (404) 639-1711, bzb@cdc.gov Alternate Phone, , (404) 772-5131,**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human and Animal
Acceptable Sample/ Specimen Type for Testing	http://www.cdc.gov/anthrax/labs/recommended_specimen.html
Minimum Volume Required	100 uL - see Additional Information
Storage & Preservation of Specimen Prior to Shipping	Info on specimens, storage and shipping can be found at: http://www.cdc.gov/anthrax/labs/recommended_specimen.html
Transport Medium	Dependent on specimen type submitted. Info on specimens, storage, and shipping can be found at: http://www.cdc.gov/anthrax/labs/recommended_specimen.html
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Info on appropriate specimens and shipping can be found at: http://www.cdc.gov/anthrax/labs/recommended_specimen.html Most samples can be sent 2-8 ◦ C. Fresh tissue should be sent frozen and fixed tissue can be sent at room temperature.
Methodology	Culture, PCR, Immunohistochemistry (IHC), Toxin detection
Turnaround Time	2 Weeks
Interferences & Limitations	Varies depending on tests used. Blood specimens should be collected in EDTA or Sodium Citrate tubes (not heparin). Tissues for IHC should be formalin fixed.
Additional Information	Turnaround time will vary depending on methods selected for detection at CDC. Some methods may require up to 1 week. Minimal volume: limited testing can be done with 100 ul, however 0.5- 1 ml is optimal to increase number of tests which can be performed and increase assay sensitivity.
CDC Points of Contact	Alex Hoffmaster (404) 639-0852 amh9@cdc.gov Chung Marston (404) 639-4057 cdk5@cdc.gov

Test Order

Bacillus anthracis Genotyping and AST

CDC-10203

Synonym(s)	Anthrax, Anthrax Gamma phage, Anthrax PCR, Anthrax typing
Pre-Approval Needed	**Bacterial Special Pathogens Branch (CDC), , (404) 639-1711, bzb@cdc.gov**
Supplemental Information Required	**Select Agent Form 2 required for submission of all confirmed Select Agents.**
Supplemental Form	**http://www.selectagents.gov/forms.html**
Performed on Specimens From	Human, Animal, and Food/Environmental/Medical Devices/Biologics
Acceptable Sample/ Specimen Type for Testing	*B. anthracis* isolates
Minimum Volume Required	N/A
Storage & Preservation of Specimen Prior to Shipping	Store isolates at room temperature
Transport Medium	Appropriate microbiological media for *Bacillus*
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Room temperature Confirmed select agents need Form 2 approval by the Select Agent program prior to shipping. The Form 2 can be found at http://www.selectagents.gov/forms.html
Methodology	Genotyping (i.e., MLVA and genome sequence), Broth Microdilution, Rapid Antimicrobial Susceptibility Test (AST)
Turnaround Time	2 Weeks
Interferences & Limitations	None
Additional Information	Rapid AST turnaround is 12-24 h. Genotyping and broth microdilution is ~1 week. Note: more extensive characterization by whole genome sequencing may take longer. Times may be shorter in public health emergencies. Link to our website: http://www.cdc.gov/anthrax/labs/recommended_specimen.html
CDC Points of Contact	Chung Marston (404) 639-4057 cdk5@cdc.gov David Lonsway (404) 639-2825 dul7@cdc.gov

Test Order

Bacillus anthracis Serology

CDC-10196

Synonym(s)	Anthrax ELISA
Pre-Approval Needed	**Bacterial Special Pathogens Branch (CDC), , (404) 639-1711, bzb@cdc.gov Alternate Phone, , (404) 772-5131,**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Serum (acute and convalescent required)
Minimum Volume Required	250 uL
Storage & Preservation of Specimen Prior to Shipping	Separate serum from clot; sera should be frozen immediately following separation and stored frozen at -20°C or colder, and should be shipped frozen on dry ice to CDC, in appropriately labeled plastic screw cap vials. For more information on specimen processing and storage, see link in "Additional Information".
Transport Medium	Not applicable
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Ship specimen Monday-Thursday overnight to avoid weekend deliveries Frozen specimen should be shipped on dry ice. See additional info at http://www.cdc.gov/anthrax/labs/recommended_specimen.html .
Methodology	Antibody detection by ELISA and TNA
Turnaround Time	2 Weeks
Interferences & Limitations	Requires acute and convalescent serum for analysis
Additional Information	Turnaround time ranges from 1-2 weeks. See additional info at http://www.cdc.gov/anthrax/labs/recommended_specimen.html
CDC Points of Contact	Chung Marston (404) 639-4057 cdk5@cdc.gov Robyn Stoddard (404) 639-2053 frd8@cdc.gov

Test Order

Bacillus anthracis Study

CDC-10205

Synonym(s)	None
Pre-Approval Needed	**Hoffmaster, Alex, (404) 639-0852, amh9@cdc.gov**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human, Animal, and Food/Environmental/Medical Devices/Biologics
Acceptable Sample/ Specimen Type for Testing	To be determined
Minimum Volume Required	To be determined
Storage & Preservation of Specimen Prior to Shipping	To be determined
Transport Medium	To be determined
Specimen Labeling	To be determined
Shipping Instructions which Include Specimen Handling Requirements	To be determined
Methodology	
Turnaround Time	
Interferences & Limitations	To be determined
Additional Information	To be determined
CDC Points of Contact	Alex Hoffmaster (404) 639-0852 amh9@cdc.gov

Test Order

Bacillus cereus Detection - Foodborne Outbreak

CDC-10104

Synonym(s)	None
Pre-Approval Needed	**Luquez, Carolina, (404) 639-0896, fry6@cdc.gov Gomez, Gerry, (404) 639-0537, goe4@cdc.gov**
Supplemental Information Required	**Only specimens from foodborne outbreaks accepted. Consult with EDLB contact before sending specimens. Provide preliminary results if available.**
Supplemental Form	**None**
Performed on Specimens From	Human and Food/Environmental/Medical Devices/Biologics
Acceptable Sample/ Specimen Type for Testing	Isolates, food, stool. Only specimens from foodborne outbreaks accepted. Consult with Carolina Luquez before sending specimens.
Minimum Volume Required	25 g (food) and 10g (stool)
Storage & Preservation of Specimen Prior to Shipping	Food and stool should be maintained at 4°C
Transport Medium	Not Applicable
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday-Thursday, overnight to avoid weekend deliveries. Please notify Carolina Luquez (fry6@cdc.gov) and Gerry Gomez (goe4@cdc.gov) once specimens have been shipped to provide the tracking number. Ship with cold packs in compliance with federal and local guidelines
Methodology	Toxin Detection in food, Culture, PCR
Turnaround Time	2 Months
Interferences & Limitations	None
Additional Information	Direct toxin detection requires food samples
CDC Points of Contact	Carolina Luquez (404) 639-0896 fry6@cdc.gov Gerry Gomez (404) 639-0537 goe4@cdc.gov

Test Order

Bacillus cereus Genotyping

CDC-10206

Synonym(s)	*Bacillus* MLST
Pre-Approval Needed	**None**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human, Animal, and Food/Environmental/Medical Devices/Biologics
Acceptable Sample/ Specimen Type for Testing	Isolates
Minimum Volume Required	Not Applicable
Storage & Preservation of Specimen Prior to Shipping	No Specific Requirements
Transport Medium	Any medium can be submitted, but preferably agar slants
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Ship specimen Monday-Thursday overnight to avoid weekend deliveries Agar slants need to be shipped at room temperature
Methodology	Multilocus sequence typing (MLST)
Turnaround Time	2 Weeks
Interferences & Limitations	None
Additional Information	Testing can be done on *B. cereus* and *B. thuringiensis*
CDC Points of Contact	Alex Hoffmaster (404) 639-0852 amh9@cdc.gov Jay Gee (404) 639-4936 xzg4@cdc.gov

Test Order

Bacillus species ID (Not *B. anthracis*)

CDC-10142

Synonym(s)	*Bacillus* Identification
Pre-Approval Needed	**None**
Supplemental Information Required	**Please notify laboratory prior to shipment if this is a critical care specimen**
Supplemental Form	**None**
Performed on Specimens From	Human and Food/Environmental/Medical Devices/Biologics
Acceptable Sample/ Specimen Type for Testing	Pure culture isolate on a suitable agar slant medium; consultation required for other sample/specimen types
Minimum Volume Required	Not Applicable
Storage & Preservation of Specimen Prior to Shipping	Keep specimen refrigerated if unable to ship immediately
Transport Medium	Not Applicable
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Ship specimen Monday-Thursday, overnight to avoid weekend deliveries
Methodology	Primary culture based on specimen type, 16S sequence based identification, MALDI-TOF
Turnaround Time	3 Weeks
Interferences & Limitations	The 3 week turnaround time applies to all tests unless biochemical and/or phenotypic analysis are required, which could take up to 2 months for test results.
Additional Information	If available, please provide patient history including if the patient has used a catheter and/or if the patient is immunocompromised.
CDC Points of Contact	John McQuiston (404) 639-0270 zje8@cdc.gov Anne Whitney (404) 639-1374 amw0@cdc.gov

Test Order

Bacterial ID from Clinical Specimen (16S rRNA PCR)

CDC-10146

Synonym(s)	None
Pre-Approval Needed	**McQuiston, John, (404) 639-0270, zje8@cdc.gov** **Whitney, Anne, (404) 639-1374, amw0@cdc.gov**
Supplemental Information Required	**Please notify laboratory prior to shipment if this is a critical care specimen**
Supplemental Form	**None**
Performed on Specimens From	Human and Food/Environmental/Medical Devices/Biologics
Acceptable Sample/ Specimen Type for Testing	Primary specimens with prior approval
Minimum Volume Required	Not Applicable
Storage & Preservation of Specimen Prior to Shipping	Keep specimen refrigerated if unable to ship immediately
Transport Medium	Not Applicable
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Ship specimen Monday-Thursday, overnight to avoid weekend deliveries
Methodology	Primary Culture based on specimen type, MALDI-TOF, 16S sequence based identification
Turnaround Time	3 Weeks
Interferences & Limitations	The 3 week turnaround time applies to all tests unless biochemical and/or phenotypic analysis are required, which could take up to 2 months for test results.
Additional Information	If available, please provide patient history including if the patient has used a catheter and/or if the patient is immunocompromised.
CDC Points of Contact	John McQuiston (404) 639-0270 zje8@cdc.gov Anne Whitney (404) 639-1374 amw0@cdc.gov

Test Order

Bacterial ID of Unknown Isolate (Not Strict Anaerobe)

CDC-10145

Synonym(s)	Bacterial Identification
Pre-Approval Needed	**None**
Supplemental Information Required	**Please notify laboratory prior to shipment if this is a critical care specimen**
Supplemental Form	**None**
Performed on Specimens From	Human and Food/Environmental/Medical Devices/Biologics
Acceptable Sample/ Specimen Type for Testing	Pure culture isolate on a suitable agar slant medium; consultation required for other sample/specimen types
Minimum Volume Required	Not Applicable
Storage & Preservation of Specimen Prior to Shipping	Keep specimen refrigerated if unable to ship immediately
Transport Medium	Not Applicable
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Ship specimen Monday-Thursday overnight to avoid weekend deliveries
Methodology	Primary Culture based on specimen type, MALDI-TOF, 16S sequence based identification
Turnaround Time	3 Weeks
Interferences & Limitations	The 3 week turnaround time applies to all tests unless biochemical and/or phenotypic analysis are required, which could take up to 2 months for test results.
Additional Information	If available, please provide patient history including if the patient has used a catheter and/or if the patient is immunocompromised.
CDC Points of Contact	John McQuiston (404) 639-0270 zje8@cdc.gov Anne Whitney (404) 639-1374 amw0@cdc.gov

Test Order

Balamuthia Molecular Detection

CDC-10474

Synonym(s)	Free-living ameba, parasite
Pre-Approval Needed	**None**
Supplemental Information Required	**Please provide the following information: history of present illness, exposure history, past medical history, treatment history, CSF results, imaging results. If images are available please upload to: http://www.cdc.gov/dpdx**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	For *Acanthamoeba* and *Balamuthia* molecular detection, tissue is the preferred specimen type; however, these amebae can occasionally be detected in cerebrospinal fluid (CSF; see 'Interference & Limitations' below). For Naegleria fowleri molecular detection, CSF is the preferred specimen type.
Minimum Volume Required	0.2 g tissue: 1 mL fluids
Storage & Preservation of Specimen Prior to Shipping	Storage and preservation is specimen specific
Transport Medium	Small piece of tissue should be transported in small amount of 0.5x PBS to prevent dryness.
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition. In addition to two patient identifiers (sex, date of birth, name, etc.), provide specimen type and date of collection.
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday - Thursday, overnight to avoid weekend deliveries. Please contact laboratory prior to shipping any specimen and include "Unit 53" on the outside of package. Ship specimen at room temperature, not on dry ice, as an etiologic agent, unless the specimen has been previously frozen. Frozen specimens may be shipped in cold with ice-packs. Please send the shipment tracking number on the day of shipment by e-mail to the CDC Point of Contacts (see below).
Methodology	Real-time PCR
Turnaround Time	7 Days
Interferences & Limitations	Formalin-fixed specimens are not suitable for molecular studies as formalin fixation may cause DNA degradation. Fresh or frozen specimens, if available, are preferred. Additionally, CSF is NOT the preferred specimen type for *Acanthamoeba* or *Balamuthia* detection, because a negative CSF test result does not completely rule out infections with these amebae.
Additional Information	None
CDC Points of Contact	Jennifer Cope (404) 718-4878 bjt9@cdc.gov Ibne Ali (404) 718-4157 xzn5@cdc.gov

Test Order

Bartonella henselae/*B. quintana* Indirect Fluorescent Antibody (IFA) test

CDC-10486

Synonym(s)	*B. henselae*/cat scratch disease, *B. quintana*/trench fever
Pre-Approval Needed	**None**
Supplemental Information Required	**Please provide submitting agency, contact name, address, phone number, specimen identifier, patient name, specimen source and type, sex and date of birth, date of symptom onset, sample collection date, and clinical information including symptoms and type and date of treatment patient has received.**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Serum
Minimum Volume Required	500 uL
Storage & Preservation of Specimen Prior to Shipping	Sera may be stored at 2°-8°C for up to 14 days. If testing is delayed for a longer period, serum samples may be frozen.
Transport Medium	Not Applicable
Specimen Labeling	Specimen identifier and patient name
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday-Thursday, overnight to avoid weekend deliveries. All packages must be addressed to: Centers for Disease Control and Prevention Bacterial Diseases Branch Attn: John Young 3156 Rampart Road Fort Collins, CO 80521 Frozen specimen should be shipped on dry ice Refrigerated specimen should be shipped on ice packs
Methodology	Indirect Fluorescent Antibody (IFA)
Turnaround Time	2 Weeks
Interferences & Limitations	Samples with hemolysis, increased lipemia or microbial growth may interfere with test results
Additional Information	Clinical information including symptoms and date of onset must be included; specimens without this accompanying information will not be tested.
CDC Points of Contact	Jeannine Peterson (970) 266-3524 nzp0@cdc.gov Marty Schriefer (970) 221-6479 mms7@cdc.gov

Test Order

Bartonella Molecular Identification

CDC-10295

Synonym(s)	Cat scratch fever, *B. henselae,* Trench fever, *B. quintana,* Oroya fever, *B. bacilliformis*
Pre-Approval Needed	**None**
Supplemental Information Required	**Prior approval is required if the following information is not provided:** **-Symptom onset date** **-Sample collection date** **-Type of infection** **-Status of illness** **Recommended:** **-Travel history** **-Exposure history** **-Therapeutic agents** **-Brief clinical history**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Acute samples only, anticoagulated whole blood collected in Ethylenediaminetetraacetic acid (EDTA) treated tubes preferred; serum; fresh tissue biopsy
Minimum Volume Required	1 mL
Storage & Preservation of Specimen Prior to Shipping	Ideally keep specimen at a refrigerated temperature not frozen. If previously frozen, then keep specimen frozen.
Transport Medium	Ethylenediaminetetraacetic acid (EDTA) blood tubes for blood; tissue in a sample collection tube
Specimen Labeling	Patient name and date of birth
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday - Thursday, overnight to avoid weekend deliveries. Specimen should be shipped refrigerated on cold packs.
Methodology	Polymerase Chain Reaction (PCR), Sequencing
Turnaround Time	6 Weeks
Interferences & Limitations	Hemolysis in whole blood specimen will interfere with results. Multiple freeze thaw cycles and sample storage above refrigerated temperatures will interfere with proper nucleic acid extraction. If a specimen is drawn at convalescence it will reduce the chance of the target organism being present in blood. Avoid collection of blood specimen in heparin tubes.
Additional Information	The Rickettsial Zoonoses Branch Reference Diagnostic Laboratory aids State Laboratories in diagnosis of difficult samples/cases or if specialized tests are needed. Routine diagnostic samples should be sent to your State Laboratory or a commercial laboratory.
CDC Points of Contact	Cecilia Kato (404) 639-1075 ckato@cdc.gov Christopher Paddock (404) 639-1309 cdp9@cdc.gov

Test Order

Bartonella Special Study

CDC-10297

Synonym(s)	Cat scratch fever, *B. henselae,* Trench fever, *B. quintana*, Oroya fever, *B. bacilliformis*
Pre-Approval Needed	**Schriefer, Marty, (970) 221-6479, mms7@cdc.gov** **Peterson, Jeannine, (970) 266-3534, nzp0@cdc.gov**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human, Animal, and Food/Environmental/Medical Devices/Biologics
Acceptable Sample/ Specimen Type for Testing	To be determined
Minimum Volume Required	To be determined
Storage & Preservation of Specimen Prior to Shipping	To be determined
Transport Medium	To be determined
Specimen Labeling	To be determined
Shipping Instructions which Include Specimen Handling Requirements	To be determined
Methodology	Molecular detection, Serology, Culture, Immunohistochemistry (IHC), Other
Turnaround Time	
Interferences & Limitations	To be determined
Additional Information	To be determined
CDC Points of Contact	Marty Schriefer (970) 221-6479 mms7@cdc.gov Jeannine Peterson (970) 266-3534 nzp0@cdc.gov

Test Order

Baylisascariasis Serology

CDC-10457

Synonym(s)	Baylisascariasis, Raccoon roundworm, parasite
Pre-Approval Needed	**None**
Supplemental Information Required	**Exposure and travel history, include other relevant risk factors (raccoon) clinical symptoms, treatment and relevant lab results.**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Serum, plasma; Cerebrospinal fluid (CSF)
Minimum Volume Required	0.5 mL
Storage & Preservation of Specimen Prior to Shipping	No specific requirements
Transport Medium	Not Applicable
Specimen Labeling	Test subject to CLIA regulations require two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday – Thursday, overnight to avoid weekend deliveries. Ship specimen at room temperature, not on dry ice, as an etiologic agent.
Methodology	Immunoblot, Western Blot, Antibody Detection
Turnaround Time	18 Days
Interferences & Limitations	Substances known to interfere with immunoassays include: bilirubin, lipids, and hemoglobin
Additional Information	None
CDC Points of Contact	Isabel McAuliffe (404) 718-4100 ibm4@cdc.gov DPDx (404) 718-4120 dpdx@cdc.gov

Test Order

Biodefense R&D Study

CDC-10487

Synonym(s)	Biodefense Research and Development Laboratory Study
Pre-Approval Needed	**Weigel, Linda, (404) 639-1497, lew9@cdc.gov** **Sue, David, (404) 639-4027, btx6@cdc.gov**
Supplemental Information Required	**For isolates from human specimens, prior approval is required. Consult with the lab for details.** **Select Agent Form 2 required for submission of all confirmed Select Agents. The Form 2 can be found at http://www.selectagents.gov/forms.html**
Supplemental Form	**http://www.selectagents.gov/forms.html**
Performed on Specimens From	Human, Animal, and Food/Environmental/Medical Devices/Biologics
Acceptable Sample/ Specimen Type for Testing	Isolates on agar plate or slant, consult with lab for details.
Minimum Volume Required	Not Applicable
Storage & Preservation of Specimen Prior to Shipping	Consult with lab for details
Transport Medium	Pure culture isolates (only) on sheep blood or Mueller-Hinton agar
Specimen Labeling	Test is subject to CLIA regulations and requires two patient identifiers on the specimen container and on the test requisition
Shipping Instructions which Include Specimen Handling Requirements	Select agents that have been identified need form 2 approval prior to shipping. Form 2 may be found at: http://www.selectagents.gov/forms.html
Methodology	Modified Broth Microdilution
Turnaround Time	2 Days
Interferences & Limitations	Isolates from human specimens may be tested only under Emergency Use Authorization.
Additional Information	Turnaround time can vary depending on age/purity of isolate received
CDC Points of Contact	Linda Weigel (404) 639-1497 lew9@cdc.gov David Sue (404) 639-4027 btx6@cdc.gov

Test Order

Biothreat Study

CDC-10432

Synonym(s)	None
Pre-Approval Needed	**Bowzard, Brad, (404) 639-3626, jbowzard@cdc.gov Sue, David, (404) 639-4027, dsue@cdc.gov**
Supplemental Information Required	**Please contact Dr. Brad Bowzard at 404 639-3626 or jbowzard@cdc.gov, for the required supplemental form and packaging and shipping requirements.**
Supplemental Form	**None**
Performed on Specimens From	Human, Animal, and Food/Environmental/Medical Devices/Biologics
Acceptable Sample/ Specimen Type for Testing	To be determined
Minimum Volume Required	To be determined
Storage & Preservation of Specimen Prior to Shipping	To be determined
Transport Medium	To be determined
Specimen Labeling	To be determined
Shipping Instructions which Include Specimen Handling Requirements	To be determined
Methodology	
Turnaround Time	
Interferences & Limitations	To be determined
Additional Information	To be determined
CDC Points of Contact	Brad Bowzard (404) 639-3626 jbowzard@cdc.gov David Sue (404) 639-4027 dsue@cdc.gov

Test Order

Blood Disorders Coagulation Study

CDC-10271

Synonym(s)	Coag
Pre-Approval Needed	**Driggers, Jennifer, (404) 639-1269, jgq2@cdc.gov**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	To be determined
Minimum Volume Required	To be determined
Storage & Preservation of Specimen Prior to Shipping	To be determined
Transport Medium	To be determined
Specimen Labeling	To be determined
Shipping Instructions which Include Specimen Handling Requirements	To be determined
Methodology	
Turnaround Time	
Interferences & Limitations	To be determined
Additional Information	To be determined
CDC Points of Contact	Jennifer Driggers (404) 639-1269 jgq2@cdc.gov

Test Order

Bordetella pertussis Serology

CDC-10166

Synonym(s)	IgG against pertussis toxin, Pertussis ELISA, whooping cough
Pre-Approval Needed	**Pawloski, Lucia, (404) 639-4506, ecz6@cdc.gov** **Tondella, Maria, (404) 639-1239, mlt5@cdc.gov**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Serum from patients with two or more weeks of cough, but will accept plasma if serum is unavailable. Centrifuge the tube of blood at 1100-1300 x g for approximately 10 minutes to separate the cells from the serum.
Minimum Volume Required	0.5 mL
Storage & Preservation of Specimen Prior to Shipping	Serum specimens may be stored refrigerated (2°-8°C) for up to 7 days; If greater than 7 days serum must be kept frozen (-20°C or lower). For long-term storage, the serum should be frozen (-20°C or colder).
Transport Medium	Not applicable
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition. Note: surveillance studies may label specimens according to protocol
Shipping Instructions which Include Specimen Handling Requirements	Serum specimens may be shipped refrigerated (2°-8°C) for up to 7 days. For shipments that are in transit for more than 7 days, specimens should be kept frozen (-20°C or lower). Sender is responsible for shipping charges and when shipping internationally must request CDC's import permit and include this with the Air Waybill. Additionally, the Pertussis/Diphtheria Laboratory requests that the sender contact the laboratory by email or phone before shipping.
Methodology	Enzyme-linked Immunosorbent Assay (ELISA)
Turnaround Time	5 Days
Interferences & Limitations	Serum collected from patients with less than 2 weeks of cough are not appropriate for this test. Samples should not be used if they have incurred more than 5 freeze-thaw cycles. Specimens with unacceptable preservatives such as anti-coagulants would invalidate the results. In addition, hemolyzed and lipemic specimens are considered suboptimal serum specimens for this assay.
Additional Information	Please include patient age and duration of cough on specimen submission form
CDC Points of Contact	Lucia Pawloski (404) 639-4506 ecz6@cdc.gov Maria Tondella (404) 639-1239 mlt5@cdc.gov

Test Order

Bordetella species ID/Confirmation of Isolates

CDC-10164

Synonym(s)	*B. pertussis*, *B. parapertussis*, *B. holmesii*, *B. bronchiseptica,* whooping cough
Pre-Approval Needed	**None**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Pure culture isolates on Regan-Lowe, Bordet-Gengou, charcoal agar or blood agar (*B. parapertussis*, *B. holmesii*, or *B. bronchiseptica* only) or cryopreserved isolates
Minimum Volume Required	Not Applicable
Storage & Preservation of Specimen Prior to Shipping	Isolates can be frozen in cryopreservation medium or refrigerated on Regan-Lowe, Bordet-Gengou, charcoal agar or blood agar (*B. parapertussis*, *B. holmesii*, or *B. bronchiseptica only*
Transport Medium	Isolates can be frozen in cryopreservation medium or for best results a fresh subculture on Regan-Lowe, Bordet-Gengou, charcoal agar or blood agar *(B. parapertussis, B. holmesii, or B. bronchiseptica* only) should be sent refrigerated. Calcium alginate and cotton swabs are not acceptable.
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition. Note: surveillance studies may label specimens according to protocol
Shipping Instructions which Include Specimen Handling Requirements	Isolates should be shipped refrigerated (2°-8°C) as soon as possible, between 24-48 hours. Frozen isolates should be sent on dry ice. Sender is responsible for shipping charges and when shipping internationally must request CDC's import permit and include this with the Air Waybill. Additionally, the Pertussis/Diphtheria Laboratory requests that the sender contacts the laboratory by email or phone before shipping.
Methodology	Culture, Identification
Turnaround Time	2 Weeks
Interferences & Limitations	Prior antibiotic treatment will adversely affect results and patients coughing more than two weeks will likely not be culture positive.
Additional Information	None
CDC Points of Contact	Pam Cassiday (404) 639-1231 pxc1@cdc.gov Maria Tondella (404) 639-1239 mlt5@cdc.gov

Test Order

Bordetella species Isolation and ID

CDC-10163

Synonym(s)	*B. pertussis*, *B. parapertussis*, *B. holmesii*, *B. bronchiseptica,* whooping cough
Pre-Approval Needed	**None**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Nasopharyngeal (NP) swabs and aspirates; calcium alginate and cotton swabs are not acceptable
Minimum Volume Required	0.5 mL aspirate
Storage & Preservation of Specimen Prior to Shipping	Nasopharyngeal (NP) swabs should be collected on Dacron (polyester), rayon or nylon. Specimens should be kept refrigerated. Use plastic/glass screw-cap, leak-proof vials.
Transport Medium	Regan-Lowe transport medium is recommended for specimens. Amies Charcoal transports are acceptable, but may decrease the probability of isolation.
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition. Note: surveillance studies may label specimens according to protocol
Shipping Instructions which Include Specimen Handling Requirements	Swabs in transport or isolates should be shipped refrigerated (2°-8°C) as soon as possible, between 24-48 hours. Aspirates can be shipped with ice packs or frozen (-20°C or lower). Frozen isolates should be sent on dry ice. Sender is responsible for shipping charges and when shipping internationally must request CDC's import permit and include this with the Air Waybill. Additionally, the Pertussis/Diphtheria Laboratory requests that the sender contacts the laboratory by email or phone before shipping.
Methodology	Culture
Turnaround Time	2 Weeks
Interferences & Limitations	Prior antibiotic treatment will adversely affect results. Patients coughing more than two weeks will likely not be culture positive.
Additional Information	None
CDC Points of Contact	Pam Cassiday (404) 639-1231 pxc1@cdc.gov Maria Tondella (404) 639-1239 mlt5@cdc.gov

Test Order

Bordetella species Molecular Detection

CDC-10165

Synonym(s)	None
Pre-Approval Needed	**Cassiday, Pam, (404) 639-1231, pxc1@cdc.gov** **Tondella, Maria, (404) 639-1239, mlt5@cdc.gov**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Prefer nasopharyngeal aspirate but will also accept nasopharyngeal swab. Calcium alginate and cotton swabs are not acceptable.
Minimum Volume Required	0.5 mL
Storage & Preservation of Specimen Prior to Shipping	Specimens should be kept refrigerated or frozen. Use plastic/glass screw-cap, leak-proof vials
Transport Medium	Dry swabs in sterile tubes are preferred; if only one swab is collected for both culture and PCR, the swabs should be sent in Regan-Lowe transport.
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition. Note: surveillance studies may label specimens according to protocol.
Shipping Instructions which Include Specimen Handling Requirements	Swabs should be shipped refrigerated (2°-8°C) as soon as possible, between 24-48 hours. Aspirates can be shipped with ice packs or frozen (-20°C or lower). Sender is responsible for shipping charges and when shipping internationally must request CDC's import permit and include this with the Air Waybill. Additionally, the Pertussis/Diphtheria Laboratory requests that the sender contacts the laboratory by email or phone before shipping.
Methodology	Polymerase Chain Reaction (PCR), Real Time Polymerase Chain Reaction (PCR), Multi target Polymerase Chain Reaction (PCR)
Turnaround Time	5 Days
Interferences & Limitations	Prior antibiotic treatment will adversely affect results. Specimens collected from patients with more than 4 weeks of cough are not appropriate for this test. Samples should not be used if they have incurred more than 2 freeze-thaw cycles. Clinical specimens collected subsequent to initiation of antimicrobial treatment may not be positive for *Bordetella* spp. Due to reduction of organisms. Whenever possible, specimens collected prior to administration of antimicrobial agents should be used to determine infection with *Bordetella* spp.
Additional Information	None
CDC Points of Contact	Pam Cassiday (404) 639-1231 pxc1@cdc.gov Maria Tondella (404) 639-1239 mlt5@cdc.gov

Test Order

Bordetella species Study

CDC-10167

Synonym(s)	None
Pre-Approval Needed	**Cassiday, Pam, (404) 639-1231, pxc1@cdc.gov** **Tondella, Maria, (404) 639-1239, mlt5@cdc.gov**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	To be determined
Minimum Volume Required	To be determined
Storage & Preservation of Specimen Prior to Shipping	To be determined
Transport Medium	To be determined
Specimen Labeling	To be determined
Shipping Instructions which Include Specimen Handling Requirements	To be determined
Methodology	
Turnaround Time	
Interferences & Limitations	To be determined
Additional Information	To be determined
CDC Points of Contact	Pam Cassiday (404) 639-1231 pxc1@cdc.gov Maria Tondella (404) 639-1239 mlt5@cdc.gov

Test Order

Bordetella spp. ID (Not *B. pertussis*/*B. parapertussis*)

CDC-10143

Synonym(s)	*Bordetella* Identification
Pre-Approval Needed	**None**
Supplemental Information Required	**Please notify laboratory prior to shipment if this is a critical care specimen**
Supplemental Form	**None**
Performed on Specimens From	Human and Food/Environmental/Medical Devices/Biologics
Acceptable Sample/ Specimen Type for Testing	Pure culture isolate on a suitable agar slant medium; consultation required for other sample/specimen types
Minimum Volume Required	Not Applicable
Storage & Preservation of Specimen Prior to Shipping	Keep specimen refrigerated if unable to ship immediately
Transport Medium	Not Applicable
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Ship specimen Monday-Thursday, overnight to avoid weekend deliveries
Methodology	Primary Culture based on specimen type, MALDI-TOF, 16S sequence based identification
Turnaround Time	3 Weeks
Interferences & Limitations	The 3 week turnaround time applies to all tests unless biochemical and/or phenotypic analysis are required, which could take up to 2 months for test results.
Additional Information	If available, please provide patient history including if the patient has used a catheter and/or if the patient is immunocompromised.
CDC Points of Contact	John McQuiston (404) 639-0270 zje8@cdc.gov Anne Whitney (404) 639-1374 amw0@cdc.gov

Test Order

Borrelia burgdorferi (Lyme Disease) Serology

CDC-10298

Synonym(s)	Lyme Disease, Borreliosis
Pre-Approval Needed	**None**
Supplemental Information Required	**Please include submitting agency, contact name, address, phone number, specimen identifier, patient name, specimen source and type, sex and date of birth, symptoms of onset, sample collection date, and clinical information including type and date of treatment patient has received.**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Serum
Minimum Volume Required	0.5 mL
Storage & Preservation of Specimen Prior to Shipping	Sera may be stored at 2°-8°C for up to 14 days. If testing is delayed for a longer period, serum samples may be frozen.
Transport Medium	Not Applicable
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition. Commonly used identifiers are the first and last name and date of birth of the patient.
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday-Thursday, overnight to avoid weekend deliveries. All packages must be addressed to: Centers for Disease Control and Prevention Bacterial Diseases Branch Attn: John Young 3156 Rampart Road Fort Collins, CO 80521 Frozen specimen should be shipped on dry ice Refrigerated specimen should be shipped on ice packs
Methodology	IgG/IgM ELISA, IgG Western Blot, IgM Western Blot
Turnaround Time	2 Weeks
Interferences & Limitations	Hemolyzed samples may interfere with test results
Additional Information	Two tier testing will be performed. If available, submit any preliminary results. Include the date of onset, antibiotic treatment (type of antibiotics and date administered), date when the sample was collected, signs and symptoms. If testing needs to be performed by another laboratory, i.e. arborvirus, please contact laboratory prior to shipping.
CDC Points of Contact	Marty Schriefer (970) 221-6479 mms7@cdc.gov Jeannine Petersen (970) 266-3524 nzp0@cdc.gov

Test Order

Borrelia Culture and Identification

CDC-10299

Synonym(s)	Lyme Disease, Borreliosis, Relapsing fever
Pre-Approval Needed	**Schriefer, Marty, (970) 221-6479, mms7@cdc.gov** **Petersen, Jeannine, (970) 266-3524, nzp0@cdc.gov**
Supplemental Information Required	**Please include submitting agency, contact name, address, phone number, specimen identifier, patient name, specimen source and type, sex and date of birth, symptoms of onset, sample collection date, and clinical information including type and date of treatment patient has received.**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Blood, skin biopsy (Erythema Migrans Rash) and others upon consultation (i.e. cultures, blood smears for confirmation, spinal fluid, synovial fluid)
Minimum Volume Required	0.5 mL
Storage & Preservation of Specimen Prior to Shipping	For a skin biopsy, contact laboratory prior to collection and/or shipment for specific requirements. Blood may be collected in heparin, citrate or EDTA. All specimen should be collected and shipped prior to antibiotic treatment if possible.
Transport Medium	Contact laboratory prior to shipping for instructions on skin biopsy's transport medium.
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition. Commonly used identifiers are the first and last name and date of birth of the patient.
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday-Thursday, overnight to avoid weekend deliveries. All packages must be addressed to: Centers for Disease Control and Prevention Bacterial Diseases Branch Attn: John Young 3156 Rampart Road Fort Collins, CO 80521 Frozen specimen should be shipped on dry ice Refrigerated specimen should be shipped on ice packs
Methodology	Culture, Microscopy Confirmation
Turnaround Time	8 Weeks
Interferences & Limitations	Antibiotic treatment will minimize growth potential of culture
Additional Information	Provide any antibiotic treatment information
CDC Points of Contact	Marty Schriefer (970) 221-6479 mms7@cdc.gov Jeannine Petersen (970) 266-3524 nzp0@cdc.gov

Test Order

Borrelia hermsii (Tick-borne Relapsing Fever) Serology

CDC-10399

Synonym(s)	Borreliosis, Recurrent fever, *Borrelia*
Pre-Approval Needed	**None**
Supplemental Information Required	**Please include submitting agency, contact name, address, phone number, specimen identifier, patient name, specimen source and type, sex and date of birth, symptoms of onset, sample collection date, and clinical information including type and date of treatment patient has received.**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Serum
Minimum Volume Required	0.5 mL
Storage & Preservation of Specimen Prior to Shipping	Keep specimen either refrigerated or frozen
Transport Medium	Not Applicable
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition. Commonly used identifiers are the first and last name and date of birth of the patient.
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday-Thursday, overnight to avoid weekend deliveries. All packages must be addressed to: Centers for Disease Control and Prevention Bacterial Diseases Branch Attn: John Young 3156 Rampart Road Fort Collins, CO 80521 Frozen specimen should be shipped on dry ice Refrigerated specimen should be shipped on ice packs
Methodology	IgM/IgG ELISA
Turnaround Time	2 Weeks
Interferences & Limitations	Hemolyzed specimen can affect the results
Additional Information	Two tier testing will be performed. If available, submit any preliminary results. Include the date of onset, antibiotic treatment (type of antibiotics and date administered), date when the sample was collected, signs and symptoms. If testing needs to be performed by another laboratory, i.e. arborvirus, please contact laboratory prior to shipping.
CDC Points of Contact	Marty Schriefer (970) 221-6479 mms7@cdc.gov Jeannine Petersen (970) 266-3524 nzp0@cdc.gov

Test Order

Borrelia Special Study

CDC-10300

Synonym(s)	None
Pre-Approval Needed	**Schriefer, Marty, (970) 221-6479, mms7@cdc.gov** **Petersen, Jeannine, (970) 266-3524, nzp0@cdc.gov**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	To be determined
Minimum Volume Required	To be determined
Storage & Preservation of Specimen Prior to Shipping	To be determined
Transport Medium	To be determined
Specimen Labeling	To be determined
Shipping Instructions which Include Specimen Handling Requirements	To be determined
Methodology	
Turnaround Time	
Interferences & Limitations	To be determined
Additional Information	To be determined
CDC Points of Contact	Marty Schriefer (970) 221-6479 mms7@cdc.gov Jeannine Petersen (970) 266-3524 nzp0@cdc.gov

Test Order

Botulinum Toxin Producing Clostridia Subtyping

CDC-10134

Synonym(s)	Bot, Botulism
Pre-Approval Needed	**Luquez, Carolina, (404) 639-0896, fry6@cdc.gov** **Maslanka, Susan, (404) 639-0895, sht5@cdc.gov**
Supplemental Information Required	**APHIS/CDC Form 2 Request to Transfer Select Agents and Toxins is required**
Supplemental Form	http://www.selectagents.gov/forms.html
Performed on Specimens From	Human, Animal, and Food/Environmental/Medical Devices/Biologics
Acceptable Sample/ Specimen Type for Testing	Isolates
Minimum Volume Required	Not Applicable
Storage & Preservation of Specimen Prior to Shipping	No Specific Requirements
Transport Medium	Chopped Meat Glucose Starch (CMGS) or Trypticase Peptone Glucose Yeast extract (TPGY) media.
Specimen Labeling	Not Applicable
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday-Thursday, overnight to avoid weekend deliveries Package must have proper labeling for infectious substance: UN 2814 Infectious substance, Category A
Methodology	Pulsed field gel electrophoresis (PFGE)
Turnaround Time	12 Weeks
Interferences & Limitations	None
Additional Information	Specify type of subtyping requested in 'Previous Laboratory Results' on back of form. APHIS/CDC Form 2 must be approved prior to shipping. Form 2 may be found at: http://www.selectagents.gov/forms.html ; Please send to POC: anticipated arrival date, courier, and tracking number.
CDC Points of Contact	Carolina Luquez (Primary POC) (404) 639-0896 fry6@cdc.gov Susan Maslanka (Alternate POC) (404) 639-0895 sht5@cdc.gov

Test Order

Botulism Laboratory Confirmation

CDC-10132

Synonym(s)	Bot, Botulism
Pre-Approval Needed	**None**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human, Animal, and Food/Environmental/Medical Devices/Biologics
Acceptable Sample/ Specimen Type for Testing	Foodborne: serum, stool, vomitus, gastric contents, and food Wound: serum, debrided tissue, swab from wounds, and stool (to rule out foodborne botulism) Infant: stool, rectal swabs, and potential sources
Minimum Volume Required	See Additional Information
Storage & Preservation of Specimen Prior to Shipping	Maintain specimen at 4°C
Transport Medium	Not Applicable
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Packages may arrive on weekends Ship with on cold packs. Package must have proper labeling for biological hazards: UN 3373 biological substance, Category B.
Methodology	Mouse Bioassay, ELISA, Mass Spectrometry (MS), Polymerase Chain Reaction (PCR)
Turnaround Time	12 Weeks
Interferences & Limitations	None
Additional Information	Serum samples must be collected before antitoxin treatment. Adult patients: 5 to 15 ml of serum (without anticoagulant); 10 to 20 g of feces (if an enema is needed, use sterile non-bacteriostatic water). Infant patients: ideally, 10g to 20g of feces should be collected; however, smaller quantities can provide confirmatory test results (if an enema is needed, use sterile non-bacteriostatic water). Foods should be left in their original containers or placed in sterile unbreakable containers. Empty containers with remnants of suspected foods can also be recovered and submitted for testing.
CDC Points of Contact	Carolina Luquez (Primary POC) (404) 639-0896 fry6@cdc.gov Susan Maslanka (Alternate POC) (404) 639-0895 sht5@cdc.gov

Test Order

Botulism Special Study

CDC-10133

Synonym(s)	None
Pre-Approval Needed	**Luquez, Carolina, (404) 639-0896, fry6@cdc.gov** **Maslanka, Susan, (404) 639-0895, sht5@cdc.gov**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human, Animal, and Food/Environmental/Medical Devices/Biologics
Acceptable Sample/ Specimen Type for Testing	To be determined
Minimum Volume Required	To be determined
Storage & Preservation of Specimen Prior to Shipping	To be determined
Transport Medium	To be determined
Specimen Labeling	To be determined
Shipping Instructions which Include Specimen Handling Requirements	To be determined
Methodology	
Turnaround Time	
Interferences & Limitations	To be determined
Additional Information	To be determined
CDC Points of Contact	Carolina Luquez (Primary POC) (404) 639-0896 fry6@cdc.gov Susan Maslanka (Alternate POC) (404) 639-0895 sht5@cdc.gov

Test Order

Brucella species Identification, Genotyping, and AST

CDC-10207

Synonym(s)	Brucellosis
Pre-Approval Needed	**None**
Supplemental Information Required	**None**
Supplemental Form	**http://www.selectagents.gov/forms.html**
Performed on Specimens From	Human, Animal, and Food/Environmental/Medical Devices/Biologics
Acceptable Sample/ Specimen Type for Testing	Blood/serum, tissue, joint fluid, environmental/nonclinical samples and culture isolates
Minimum Volume Required	Not Applicable
Storage & Preservation of Specimen Prior to Shipping	No Specific Requirements
Transport Medium	Agar slants preferred for shipping isolates
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Select agents that have been identified need form 2 approval prior to shipping. Form 2 may be found at: http://www.selectagents.gov/forms.html Select agents must be shipped Monday through Wednesday to prevent weekend arrivals Agar slants should be shipped at room temperature and specimens at 4°C.
Methodology	Polymerase Chain Reaction (PCR), Biochemicals, Phage Suseptability, Broth Micro Dilution, MLVA
Turnaround Time	2 Weeks
Interferences & Limitations	None
Additional Information	Turnaround time will vary depending on if an isolate is sent for identification or a specimen is sent for isolation. Identification of isolates generally is completed within 1 week and susceptibility testing is completed within 2 weeks, while isolation from specimens and subsequent ID may take up to 3 weeks. For additional information please refer to the ASM sentinel laboratory guide: http://www.asm.org/images/pdf/Clinical/Protocols/brucella10-15-04.pdf
CDC Points of Contact	Rebekah Tiller (404) 639-4507 eto3@cdc.gov David Lonsway (404) 639-2825 dul7@cdc.gov

Test Order

Brucella species Molecular Detection

CDC-10208

Synonym(s)	*Brucella* PCR
Pre-Approval Needed	**None**
Supplemental Information Required	**None**
Supplemental Form	**http://www.selectagents.gov/forms.html**
Performed on Specimens From	Human, Animal, and Food/Environmental/Medical Devices/Biologics
Acceptable Sample/ Specimen Type for Testing	Blood/serum, tissue, joint fluid, environmental/nonclinical samples. Blood specimens should be collected in EDTA or Sodium Citrate tubes (not heparin).
Minimum Volume Required	250 uL
Storage & Preservation of Specimen Prior to Shipping	No Specific Requirements
Transport Medium	Blood specimens should be transported in EDTA or Sodium Citrate tubes at 4°C
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Select agents that have been identified need form 2 approval prior to shipping. Form 2 can be found at: http://www.selectagents.gov/forms.html Select agents must be shipped Monday through Wednesday to prevent weekend arrivals. Specimens should be shipped at 4°C.
Methodology	Polymerase Chain Reaction (PCR)
Turnaround Time	2 Weeks
Interferences & Limitations	Blood specimens should be collected in EDTA or Sodium Citrate tubes (not heparin)
Additional Information	For additional information please refer to the ASM sentinel laboratory guide: http://www.asm.org/images/pdf/Clinical/Protocols/brucella10-15-04.pdf
CDC Points of Contact	Rebekah Tiller (404) 639-4507 eto3@cdc.gov Alex Hoffmaster (404) 639-0852 amh9@cdc.gov

Test Order

Brucella species Serology

CDC-10197

Synonym(s)	BMAT
Pre-Approval Needed	**None**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human and Animal
Acceptable Sample/ Specimen Type for Testing	Serum (acute and convalescent preferred)
Minimum Volume Required	100 uL
Storage & Preservation of Specimen Prior to Shipping	Serum needs to be stored at 4°C
Transport Medium	Not applicable
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Ship specimen Monday -Thursday overnight to avoid weekend deliveries Ship serum at 4°C
Methodology	Brucella microagglutination test (BMAT)
Turnaround Time	2 Weeks
Interferences & Limitations	Acute and convalescent sera are preferred No serology available for *B. Canis or RB51* May have poor sensitivity for chronic or complicated brucellosis
Additional Information	Acute and convalescent sera are preferred
CDC Points of Contact	Robyn Stoddard (404) 639-2053 frd8@cdc.gov Renee Galloway (404) 639-5461 zul0@cdc.gov

Test Order

Brucella species Study

CDC-10209

Synonym(s)	None
Pre-Approval Needed	**Stodard, Robyn, (404) 639-2053, frd8@cdc.gov** **Tiller, Rebekah, (404) 639-4507, eto3@cdc.gov**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human, Animal, and Food/Environmental/Medical Devices/Biologics
Acceptable Sample/ Specimen Type for Testing	To be determined
Minimum Volume Required	To be determined
Storage & Preservation of Specimen Prior to Shipping	To be determined
Transport Medium	To be determined
Specimen Labeling	To be determined
Shipping Instructions which Include Specimen Handling Requirements	To be determined
Methodology	
Turnaround Time	
Interferences & Limitations	To be determined
Additional Information	To be determined
CDC Points of Contact	Robyn Stoddard (404) 639-2053 frd8@cdc.gov Rebekah Tiller (404) 639-4507 eto3@cdc.gov

Test Order

Burkholderia mallei/pseudomallei Identification, Genotyping and AST

CDC-10210

Synonym(s)	Glanders, Melioidosis
Pre-Approval Needed	**None**
Supplemental Information Required	**None**
Supplemental Form	http://www.selectagents.gov/forms.html
Performed on Specimens From	Human, Animal, and Food/Environmental/Medical Devices/Biologics
Acceptable Sample/ Specimen Type for Testing	Isolates, clinical specimens (blood, bone marrow, sputum or bronchoscopically obtained specimens, abscess material or wound swabs, and urine)
Minimum Volume Required	Not Applicable
Storage & Preservation of Specimen Prior to Shipping	No Specific Requirements
Transport Medium	Agar slants preferred for isolates
Specimen Labeling	Test subject to CLIA regulations require two patient identifiers on the specimen container and the test requisition
Shipping Instructions which Include Specimen Handling Requirements	Select agents that have been identified need form 2 approval prior to shipping. Form 2 can be found at http://www.selectagents.gov/forms.html Select agents must be shipped Monday through Wednesday to prevent weekend arrivals. Specimens should be shipped at 4°C.
Methodology	Polymerase Chain Reaction (PCR), Biochemicals, Broth Micro Dilution, Multilocus sequence typing (MLST), Multiple-Locus Variable number tandem repeat Analysis (MLVA)
Turnaround Time	2 Weeks
Interferences & Limitations	None
Additional Information	Turnaround time will vary depending on if an isolate is sent for identification or a specimen is sent for isolation. Identification of isolates generally is completed within 3 days while isolation from specimens and subsequent ID may take up to 10 days. For additional information please refer to the ASM sentinel laboratory guide: http://asm.org/images/pdf/Clinical/Protocols/bpseudomallei2008.pdf
CDC Points of Contact	Mindy Elrod (404) 639-4055 wzg0@cdc.gov David Lonsway (404) 639-2825 dul7@cdc.gov

Test Order

Burkholderia mallei/pseudomallei Molecular Detection

CDC-10211

Synonym(s)	Glanders, Melioidosis
Pre-Approval Needed	**None**
Supplemental Information Required	**None**
Supplemental Form	http://www.selectagents.gov/forms.html
Performed on Specimens From	Human, Animal, and Food/Environmental/Medical Devices/Biologics
Acceptable Sample/ Specimen Type for Testing	Blood, bone marrow, sputum or bronchoscopically obtained specimens, abscess material or wound swabs, urine, and serum; blood specimens should be collected in EDTA or Sodium Citrate tubes (not heparin)
Minimum Volume Required	250 uL
Storage & Preservation of Specimen Prior to Shipping	No Specific Requirements
Transport Medium	Dependent on specimen type
Specimen Labeling	Test subject to CLIA regulations require two patient identifiers on the specimen container and the test requisition
Shipping Instructions which Include Specimen Handling Requirements	Select agents that have been identified need form 2 approval prior to shipping. Form 2 can be found at http://www.selectagents.gov/forms.html Select agents must be shipped Monday through Wednesday to prevent weekend arrivals. Specimens should be shipped at 4°C. Select agents must be shipped Monday through Wednesday to prevent weekend arrivals. Agar slants should be shipped at room temperature and specimens at 4°C.
Methodology	Polymerase Chain Reaction (PCR)
Turnaround Time	2 Weeks
Interferences & Limitations	Blood specimens should be collected in EDTA or Sodium Citrate tubes (not heparin)
Additional Information	For additional information please refer to the ASM sentinel laboratory guide: http://asm.org/images/pdf/Clinical/Protocols/bpseudomallei2008.pdf
CDC Points of Contact	Jay Gee (404) 639-4936 xzg4@cdc.gov Mindy Elrod (404) 639-4055 wzg0@cdc.gov

Test Order

Burkholderia mallei/ pseudomallei Study

CDC-10212

Synonym(s)	None
Pre-Approval Needed	**Elrod, Mindy, (404) 639-4055, wzg0@cdc.gov** **Gee, Jay, (404) 639-4936, xzg4@cdc.gov**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human, Animal, and Food/Environmental/Medical Devices/Biologics
Acceptable Sample/ Specimen Type for Testing	To be determined
Minimum Volume Required	To be determined
Storage & Preservation of Specimen Prior to Shipping	To be determined
Transport Medium	To be determined
Specimen Labeling	To be determined
Shipping Instructions which Include Specimen Handling Requirements	To be determined
Methodology	
Turnaround Time	
Interferences & Limitations	To be determined
Additional Information	To be determined
CDC Points of Contact	Mindy Elrod (404) 639-4055 wzg0@cdc.gov Jay Gee (404) 639-4936 xzg4@cdc.gov

Test Order

Burkholderia pseudomallei Serology

CDC-10198

Synonym(s)	Melioidosis
Pre-Approval Needed	**None**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human and Animal
Acceptable Sample/ Specimen Type for Testing	Serum (acute and convalescent required)
Minimum Volume Required	100 uL
Storage & Preservation of Specimen Prior to Shipping	Store serum at 4°C before shipping
Transport Medium	Not Applicable
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Ship specimen Monday -Thursday overnight to avoid weekend deliveries Serum should be shipped at 4°C
Methodology	IHA-indirect haemagglutantion
Turnaround Time	2 Weeks
Interferences & Limitations	Acute and convalescent are required.
Additional Information	Turnaround time may be shorter depending on risk and need
CDC Points of Contact	Alex Hoffmaster (404) 639-0852 amh9@cdc.gov Mindy Elrod (404) 639-4055 wzg0@cdc.gov

Test Order

Burkholderia spp. ID (Not *B. mallei*/*B. pseudomallei*)

CDC-10144

Synonym(s)	*Burkholderia* Identification
Pre-Approval Needed	**None**
Supplemental Information Required	**Please notify laboratory prior to shipment if this is a critical care specimen**
Supplemental Form	**None**
Performed on Specimens From	Human and Food/Environmental/Medical Devices/Biologics
Acceptable Sample/ Specimen Type for Testing	Pure culture isolate on a suitable agar slant medium; consultation required for other sample/specimen types
Minimum Volume Required	Not Applicable
Storage & Preservation of Specimen Prior to Shipping	Keep specimen refrigerated if unable to ship immediately
Transport Medium	Not Applicable
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Ship specimen Monday-Thursday, overnight to avoid weekend deliveries
Methodology	Primary Culture based on specimen type, MALDI-TOF, 16S sequence based identification
Turnaround Time	3 Weeks
Interferences & Limitations	The 3 week turnaround time applies to all tests unless biochemical and/or phenotypic analysis are required, which could take up to 2 months for test results.
Additional Information	If available, please provide patient history including if the patient has used a catheter and/or if the patient is immunocompromised
CDC Points of Contact	John McQuiston (404) 639-0270 zje8@cdc.gov Anne Whitney (404) 639-1374 amw0@cdc.gov

Test Order

Campylobacter and *Helicobacter* Study

CDC-10125

Synonym(s)	Campy, *H. pylori*
Pre-Approval Needed	**Pruckler, Janet, (404) 639-4770, jmp5@cdc.gov** **Dutta, Vikrant, (404) 639-5179, kvi5@cdc.gov**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human, Animal, and Food/Environmental/Medical Devices/Biologics
Acceptable Sample/ Specimen Type for Testing	To be determined
Minimum Volume Required	To be determined
Storage & Preservation of Specimen Prior to Shipping	To be determined
Transport Medium	To be determined
Specimen Labeling	To be determined
Shipping Instructions which Include Specimen Handling Requirements	To be determined
Methodology	
Turnaround Time	
Interferences & Limitations	To be determined
Additional Information	To be determined
CDC Points of Contact	Janet Pruckler (404) 639-4770 jmp5@cdc.gov Vikrant Dutta (404) 639-5179 kvi5@cdc.gov

Test Order

Campylobacter species serology

CDC-10455

Synonym(s)	Enteric Pathogen
Pre-Approval Needed	**Aubert, Rachael, (404) 639-3816, vrl7@cdc.gov** **Korth, Michael, (404) 639-2099, mqk8@cdc.gov**
Supplemental Information Required	**Date of illness onset, date of serum collection, clinical diagnosis (i.e. Guillain-Barré).**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Paired serum is preferred. Serum is always preferred but plasma is acceptable. Do not pool specimens.
Minimum Volume Required	100 uL (More Preferred)
Storage & Preservation of Specimen Prior to Shipping	Maintain serum at 4°C (preferred); frozen specimens acceptable
Transport Medium	Separate serum from the clot and ship in a sterile labeled tube with the top tightly closed
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday-Thursday, overnight to avoid weekend deliveries. Please notify Rachael Aubert (vrl7@cdc.gov, (404) 639-3816) once specimens have been shipped to provide the tracking number. Ship with cold packs in compliance with federal and local guidelines
Methodology	EIA
Turnaround Time	3 Months
Interferences & Limitations	None
Additional Information	Paired serum specimens always preferred. Please send one tube per specimen submission form. Submit multiple forms if needed.
CDC Points of Contact	Rachael Aubert (404) 639-3816 vrl7@cdc.gov Michael Korth (404) 639-2099 mqk8@cdc.gov

Test Order

Campylobacter, *Helicobacter*, and Related Organisms Identification

CDC-10126

Synonym(s)	Campy, *H. pylori*
Pre-Approval Needed	**None**
Supplemental Information Required	**Prior approval is not required for human specimens; Please call for approval prior to sending other specimen types. Provide any preliminary results available.**
Supplemental Form	**None**
Performed on Specimens From	Human, Animal, and Food/Environmental/Medical Devices/Biologics
Acceptable Sample/ Specimen Type for Testing	Isolates
Minimum Volume Required	Not Applicable
Storage & Preservation of Specimen Prior to Shipping	No Specific Requirements
Transport Medium	Ship overnight growth on nonselective blood-based slant/stab (preferably not TSA); screw cap tubes preferred
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday-Thursday, overnight to avoid weekend deliveries Ship with cold packs in compliance with federal and local guidelines
Methodology	Phenotypic Identification, Genetic Identification
Turnaround Time	8 Weeks
Interferences & Limitations	None
Additional Information	Turnaround times for routine isolates may be extended during major foodborne outbreak activities or due to limited availability of resources.
CDC Points of Contact	Janet Pruckler (404) 639-4770 jmp5@cdc.gov Vikrant Dutta (404) 639-5179 kvi5@cdc.gov

Test Order

Campylobacter, *Helicobacter*, and Related Organisms Identification and Subtyping

CDC-10127

Synonym(s)	Campy, *H. pylori*
Pre-Approval Needed	**None**
Supplemental Information Required	**Prior approval is not required for human specimens; Please call for approval prior to sending other specimen types. Provide any preliminary results available.**
Supplemental Form	**None**
Performed on Specimens From	Human, Animal, and Food/Environmental/Medical Devices/Biologics
Acceptable Sample/ Specimen Type for Testing	Isolates
Minimum Volume Required	Not Applicable
Storage & Preservation of Specimen Prior to Shipping	No Specific Requirements
Transport Medium	Ship overnight growth on nonselective blood-based slant/stab (preferably not TSA); screw cap tubes preferred
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday-Thursday, overnight to avoid weekend deliveries Ship with cold packs in compliance with federal and local guidelines
Methodology	Phenotypic Identification, Genetic Identification, Penner Serotyping, PFGE, AST
Turnaround Time	8 Weeks
Interferences & Limitations	None
Additional Information	Specify type of subtyping requested in 'Previous Laboratory Results' on back of form. Epidemiologic metadata, PulseNet cluster code, and PFGE pattern designation requested if available. Turnaround times for routine isolates may be extended during major foodborne outbreak activities due to limited availability of resources.
CDC Points of Contact	Janet Pruckler (404) 639-4770 jmp5@cdc.gov Vikrant Dutta (404) 639-5179 kvi5@cdc.gov

Test Order

Chagas Disease Molecular Detection

CDC-10475

Synonym(s)	*Trypanosoma cruzi*; American trypanosomiasis, parasite
Pre-Approval Needed	**None**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Blood, Heart Biopsy Tissue, and CSF
Minimum Volume Required	2.2 ml (pediatric 0.2 ml)
Storage & Preservation of Specimen Prior to Shipping	Collect about 5 ml blood sample in Vacutainer® EDTA tubes prior to anti-parasitic therapy and store at 4°C
Transport Medium	Not Applicable
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday - Thursday, overnight to avoid weekend deliveries. Ship specimen on wet ice (cold pack) as an etiologic agent.
Methodology	Real-time PCR
Turnaround Time	21 Days
Interferences & Limitations	None
Additional Information	None
CDC Points of Contact	Yvonne Qvarnstrom (404) 718-4123 bvp2@cdc.gov Theresa Benedict (404) 718-4124 tgd5@cdc.gov

Test Order

Chagas Disease Serology

CDC-10458

Synonym(s)	*Trypanosoma cruzi*; American trypanosomiasis, parasite
Pre-Approval Needed	**None**
Supplemental Information Required	**Exposure and travel history, include other relevant risk factors; clinical symptoms, treatment and relevant lab results.**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Serum and plasma
Minimum Volume Required	0.5 mL
Storage & Preservation of Specimen Prior to Shipping	No specific requirements
Transport Medium	Not Applicable
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday – Thursday, overnight to avoid weekend deliveries. Ship specimen at room temperature, not on dry ice, as an etiologic agent.
Methodology	Indirect Fluorescent Antibody Assay, EIA, ELISA, Antibody Detection
Turnaround Time	18 Days
Interferences & Limitations	Substances known to interfere with immunoassays include: bilirubin, lipids, and hemoglobin
Additional Information	None
CDC Points of Contact	Hilda Rivera (404) 718-4100 igi2@cdc.gov Sue Montgomery (404) 718-4731 zqu6@cdc.gov

Test Order

Chlamydia trachomatis, Genital – Molecular Detection

CDC-10192

Synonym(s)	*Chlamydia trachomatis* (CT) NAATS, *Chlamydia*
Pre-Approval Needed	**None**
Supplemental Information Required	**Please indicate the product or medium used for storage and/or transport.**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Oral pharynx swabs, cervical swabs, vaginal swabs, and rectal swabs collected on any commercially available product, and urine
Minimum Volume Required	5 mL (urine)
Storage & Preservation of Specimen Prior to Shipping	Adhere to product insert instructions for swabs
Transport Medium	Adhere to product insert instructions for swabs
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday – Thursday, overnight to avoid weekend deliveries. Specimen should be shipped on dry ice if previously frozen, as an etiologic agent.
Methodology	Nucleic Acid Amplification Tests (NAATS)
Turnaround Time	2 Weeks
Interferences & Limitations	Adhere to product insert instructions for swabs
Additional Information	None
CDC Points of Contact	John Papp (404) 639-3785 jwp6@cdc.gov Christi Phillips (404) 639-2147 div2@cdc.gov

Test Order

Chlamydia trachomatis, Genital - Study

CDC-10193

Synonym(s)	None
Pre-Approval Needed	**Papp, John, (404) 639-3785, jwp6@cdc.gov**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	To be determined
Minimum Volume Required	To be determined
Storage & Preservation of Specimen Prior to Shipping	To be determined
Transport Medium	To be determined
Specimen Labeling	To be determined
Shipping Instructions which Include Specimen Handling Requirements	To be determined
Methodology	
Turnaround Time	
Interferences & Limitations	To be determined
Additional Information	To be determined
CDC Points of Contact	John Papp (404) 639-3785 jwp6@cdc.gov Christi Phillips (404) 639-2147 div2@cdc.gov

Test Order

Chlamydophila pneumoniae Molecular Detection

CDC-10152

Synonym(s)	*Chlamydia pneumoniae*, Atypical pneumonia, CAP, Chlamydia
Pre-Approval Needed	**None**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Nasopharyngeal (NP) and/or Oropharyngeal (OP) swabs, and any lower respiratory tract specimen including bronchoalveolar lavage (BAL) and sputum; tissue, cerebral spinal fluid, isolates and purified nucleic acid; Others upon consultation with laboratory.
Minimum Volume Required	Contingent upon specimen type. Please call for consultation
Storage & Preservation of Specimen Prior to Shipping	Specimens can be kept refrigerated if shipped in less than 72 hours of collection; otherwise specimen should be kept frozen. Store swabs in universal transport medium.
Transport Medium	Universal transport medium
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday-Thursday overnight to avoid weekend deliveries Refrigerated specimen should be sent on ice packs Frozen specimen should be sent on dry ice
Methodology	Real-Time PCR
Turnaround Time	7 Days
Interferences & Limitations	Do not use cotton swabs with wooden shafts. Specimen should be acquired prior to antibiotic treatment. Improper specimen storage and handling may result in inconclusive or inaccurate results.
Additional Information	None
CDC Points of Contact	Jonas Winchell (404) 639-4921 Jwinchell@cdc.gov Maureen Diaz (404) 639-4534 mdiaz1@cdc.gov

Test Order

Chlamydophila psittaci Molecular Detection

CDC-10153

Synonym(s)	Psittacosis, Parrot fever, *Chlamydia psittaci*
Pre-Approval Needed	**Winchell, Jonas, (404) 639-4921, Jwinchell@cdc.gov** **Diaz, Maureen, (404) 639-4534, mdiaz1@cdc.gov**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Nasopharyngeal (NP) and/or Oropharyngeal (OP) swabs, and any lower respiratory tract specimen including bronchoalveolar lavage (BAL) and sputum; tissue, cerebral spinal fluid , isolates and purified nucleic acid; Others upon consultation with laboratory.
Minimum Volume Required	Contingent upon specimen type. Please call for consultation
Storage & Preservation of Specimen Prior to Shipping	Tissues should be kept frozen. All other specimens can be kept refrigerated if shipped less than 72 hrs of collection; otherwise specimens should be kept frozen. Store swabs in universal transport medium.
Transport Medium	Universal transport medium
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday-Thursday overnight to avoid weekend deliveries Refrigerated specimen should be sent on ice packs Frozen specimen should be sent on dry ice
Methodology	Real Time PCR
Turnaround Time	7 Days
Interferences & Limitations	Do not send fixed tissues. Do not use cotton swabs with wooden shafts. Specimen should be acquired prior to antibiotic treatment. Improper specimen storage and handling may result in inconclusive or inaccurate results.
Additional Information	If specimen is not of human origin please contact Dr. Branson Ritchie at the University of Georgia
CDC Points of Contact	Jonas Winchell (404) 639-4921 Jwinchell@cdc.gov Maureen Diaz (404) 639-4534 mdiaz1@cdc.gov

Test Order

Chlamydophila psittaci Serology

CDC-10154

Synonym(s)	Psittacosis, Parrot fever, *Chlamydia psittaci*
Pre-Approval Needed	**Winchell, Jonas, (404) 639-4921, Jwinchell@cdc.gov** **Diaz, Maureen, (404) 639-4534, mdiaz1@cdc.gov**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Paired Sera (acute and convalescent)
Minimum Volume Required	2 mL of each serum
Storage & Preservation of Specimen Prior to Shipping	Specimen should be kept frozen
Transport Medium	Not Applicable
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday-Thursday overnight to avoid weekend deliveries Frozen specimen should be sent on dry ice
Methodology	Micro-immunofluoresence (MIF)
Turnaround Time	7 Days
Interferences & Limitations	Improper specimen storage and handling may result in inconclusive or inaccurate results
Additional Information	None
CDC Points of Contact	Jonas Winchell (404) 639-4921 Jwinchell@cdc.gov Maureen Diaz (404) 639-4534 mdiaz1@cdc.gov

Test Order

Chlamydophila species Study

CDC-10158

Synonym(s)	None
Pre-Approval Needed	**Winchell, Jonas, (404) 639-4921, Jwinchell@cdc.gov** **Diaz, Maureen, (404) 639-4534, mdiaz1@cdc.gov**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	To be determined
Minimum Volume Required	To be determined
Storage & Preservation of Specimen Prior to Shipping	To be determined
Transport Medium	To be determined
Specimen Labeling	To be determined
Shipping Instructions which Include Specimen Handling Requirements	To be determined
Methodology	
Turnaround Time	
Interferences & Limitations	To be determined
Additional Information	To be determined
CDC Points of Contact	Jonas Winchell (404) 639-4921 Jwinchell@cdc.gov Maureen Diaz (404) 639-4534 mdiaz1@cdc.gov

Test Order

Clinical Microbiology Reference Study

CDC-10231

Synonym(s)	None
Pre-Approval Needed	**Rasheed, Kamile, (404) 639-3247, JRasheed@cdc.gov** **Limbago, Brandi, (404) 639-2162, Blimbago@cdc.gov**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human, Animal, and Food/Environmental/Medical Devices/Biologics
Acceptable Sample/ Specimen Type for Testing	To be determined
Minimum Volume Required	To be determined
Storage & Preservation of Specimen Prior to Shipping	To be determined
Transport Medium	To be determined
Specimen Labeling	To be determined
Shipping Instructions which Include Specimen Handling Requirements	To be determined
Methodology	
Turnaround Time	
Interferences & Limitations	To be determined
Additional Information	To be determined
CDC Points of Contact	Kamile Rasheed (404) 639-3247 JRasheed@cdc.gov Brandi Limbago (404) 639-2162 Blimbago@cdc.gov

Test Order

Clostridium difficile Identification

CDC-10228

Synonym(s)	*C. Difficile* ID, C. diff
Pre-Approval Needed	**None**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human and Animal
Acceptable Sample/ Specimen Type for Testing	Pure culture isolates in suitable anaerobic transport medium (e.g., Chopped Meat Glucose Broth)
Minimum Volume Required	Not Applicable
Storage & Preservation of Specimen Prior to Shipping	Store anaerobically
Transport Medium	Pure culture isolate in Chopped Meat Glucose Broth, thioglycolate broth or frozen in TSB plus glycerol
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Ship specimen Monday -Thursday overnight to avoid weekend deliveries, as an etiologic agent. Frozen specimen should be shipped on dry ice Specimen stored at room temperature should be shipped at room temperature
Methodology	Phenotypic Testing, Molecular Testing
Turnaround Time	28 Days
Interferences & Limitations	None
Additional Information	This test does not include strain typing or characterization
CDC Points of Contact	David Lonsway (404) 639-2825 Dlonsway@cdc.gov Kamile Rasheed (404) 639-3247 jkr1@cdc.gov

Test Order

Clostridium difficile Outbreak Strain Typing

CDC-10229

Synonym(s)	*C. Difficile* Toxin, *C. difficile* Characterization
Pre-Approval Needed	**Rasheed, Kamile, (404) 639-3247, JRasheed@cdc.gov** **Karlsson, Maria, (404) 639-0698, fwt4@cdc.gov**
Supplemental Information Required	**Prior approval and Epidemiologic consultation required.**
Supplemental Form	**None**
Performed on Specimens From	Human, Animal, and Food/Environmental/Medical Devices/Biologics
Acceptable Sample/ Specimen Type for Testing	Pure culture isolate. Additional specimen types accepted upon consultation with laboratory
Minimum Volume Required	Not Applicable
Storage & Preservation of Specimen Prior to Shipping	Store anaerobically
Transport Medium	Pure culture isolate in Chopped Meat Glucose Broth, thioglycolate broth or frozen in TSB plus glycerol
Specimen Labeling	Include date of isolation and unique specimen identifier
Shipping Instructions which Include Specimen Handling Requirements	Ship specimen Monday -Thursday overnight to avoid weekend deliveries, as an etiologic agent. Frozen specimen should be shipped on dry ice Specimen stored at room temperature should be shipped at room temperature
Methodology	Molecular Strain Typing, Phenotypic Testing
Turnaround Time	28 Days
Interferences & Limitations	None
Additional Information	Not CLIA compliant testing; for epidemiologic purposes only
CDC Points of Contact	Kamile Rasheed (404) 639-3247 JRasheed@cdc.gov Maria Karlsson (404) 639-0698 fwt4@cdc.gov

Test Order

Clostridium perfringens Detection - Foodborne Outbreak

CDC-10111

Synonym(s)	*C. perfringens*
Pre-Approval Needed	**Luquez, Carolina, (404) 639-0896, fry6@cdc.gov** **Gomez, Gerry, (404) 639-0537, goe4@cdc.gov**
Supplemental Information Required	**Only specimens from foodborne outbreaks accepted. Consult with EDLB contact before sending specimens. Provide any preliminary results available.**
Supplemental Form	**None**
Performed on Specimens From	Human and Food/Environmental/Medical Devices/Biologics
Acceptable Sample/ Specimen Type for Testing	Isolates, stool and food. Only specimens from foodborne outbreaks accepted. Consult with Carolina Luquez and Gerry Gomez before sending specimens.
Minimum Volume Required	10 g (stool) and 25 g (food)
Storage & Preservation of Specimen Prior to Shipping	Maintain stool and food at 4°C
Transport Medium	Not Applicable
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday-Thursday, overnight to avoid weekend deliveries. Please notify Carolina Luquez (fry6@cdc.gov) and Gerry Gomez (goe4@cdc.gov) once specimens have been shipped to provide the tracking number. Ship with cold packs in compliance with federal and local guidelines
Methodology	Toxin Detection in Stool, Culture, PCR
Turnaround Time	2 Months
Interferences & Limitations	None
Additional Information	Direct toxin detection requires stool specimens
CDC Points of Contact	Carolina Luquez (404) 639-0896 fry6@cdc.gov Gerry Gomez (404) 639-0537 goe4@cdc.gov

Test Order

Congo-Crimean Hemorrhagic Fever Identification

CDC-10302

Synonym(s)	CCHF
Pre-Approval Needed	**Klena, John, (404) 639-0114, irc4@cdc.gov** **Rollin, Pierre, (404) 639-1124, pyr3@cdc.gov**
Supplemental Information Required	**See Supplemental Form**
Supplemental Form	http://www.cdc.gov/ncezid/dhcpp/vspb/pdf/specimen-submission.pdf
Performed on Specimens From	Human and Animal
Acceptable Sample/ Specimen Type for Testing	Frozen tissue, blood, and serum
Minimum Volume Required	1 mL
Storage & Preservation of Specimen Prior to Shipping	Specimen must be placed in plastic screw capped vials, frozen to -70°C, and kept frozen until shipment. See link to supplemental submission form for specific information on various specimen types.
Transport Medium	Not Applicable
Specimen Labeling	Patient name, patient ID #, specimen type, date collected
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday-Thursday overnight to avoid weekend deliveries. Specimen should be shipped frozen on dry ice. See supplemental submission forms for further details. Do not ship specimen without prior consultation and approval.
Methodology	Molecular Typing, Polymerase Chain Reaction (PCR)
Turnaround Time	10 Days
Interferences & Limitations	Specimen must remain frozen; warming or freeze thawing reduces sensitivity. Heparin may cause interference with the molecular tests and should be avoided.
Additional Information	Critical specimens will take less than 4 days to turn around. See link to supplemental submission forms for detailed information.
CDC Points of Contact	John Klena (404) 639-0114 irc4@cdc.gov Pierre Rollin (404) 639-1124 pyr3@cdc.gov

Test Order

Congo-Crimean Hemorrhagic Fever Serology

CDC-10303

Synonym(s)	CCHF
Pre-Approval Needed	**Klena, John, (404) 639-0114, irc4@cdc.gov** **Rollin, Pierre, (404) 639-1124, pyr3@cdc.gov**
Supplemental Information Required	**See Supplemental Form**
Supplemental Form	http://www.cdc.gov/ncezid/dhcpp/vspb/pdf/specimen-submission.pdf
Performed on Specimens From	Human and Animal
Acceptable Sample/ Specimen Type for Testing	Blood and serum
Minimum Volume Required	1 mL
Storage & Preservation of Specimen Prior to Shipping	Specimen must be kept cold (at or below 4°C). If possible place specimen in plastic screw capped vials. See link to supplemental submission form for specific information on various specimen types.
Transport Medium	Not Applicable
Specimen Labeling	Patient name, patient ID #, specimen type, date collected
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday-Thursday overnight to avoid weekend deliveries. Specimen should be shipped on cold packs or dry ice if frozen. See supplemental submission forms for further details. Do not ship specimen without prior consultation and approval.
Methodology	ELISA
Turnaround Time	10 Days
Interferences & Limitations	Specimen must remain frozen; warming or freeze thawing reduces sensitivity
Additional Information	Critical specimens will take less than 4 days to turn around. See link to supplemental submission forms for detailed information.
CDC Points of Contact	John Klena (404) 639-0114 irc4@cdc.gov Pierre Rollin (404) 639-1124 pyr3@cdc.gov

Test Order

Corynebacterium diphtheriae Study

CDC-10172

Synonym(s)	None
Pre-Approval Needed	**Cassiday, Pam, (404) 639-1231, pxc1@cdc.gov** **Tondella, Maria, (404) 639-1239, mlt5@cdc.gov**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	To be determined
Minimum Volume Required	To be determined
Storage & Preservation of Specimen Prior to Shipping	To be determined
Transport Medium	To be determined
Specimen Labeling	To be determined
Shipping Instructions which Include Specimen Handling Requirements	To be determined
Methodology	
Turnaround Time	
Interferences & Limitations	To be determined
Additional Information	To be determined
CDC Points of Contact	Pam Cassiday (404) 639-1231 pxc1@cdc.gov Maria Tondella (404) 639-1239 mlt5@cdc.gov

Test Order

Corynebacterium diphtheriae Toxin - Molecular Detection

CDC-10171

Synonym(s)	Diphtheria, Real Time PCR
Pre-Approval Needed	**Cassiday, Pam, (404) 639-1231, pxc1@cdc.gov** **Tondella, Maria, (404) 639-1239, mlt5@cdc.gov**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Pure culture isolates on a suitable agar slant, extracted DNA, or pseudomembrane
Minimum Volume Required	100 uL (DNA)
Storage & Preservation of Specimen Prior to Shipping	Specimens should be kept refrigerated or frozen. Use plastic/glass screw-cap, leak-proof vials. Pseudo-membrane should be sent in leak-proof container with saline, not formalin.
Transport Medium	Common transport media such as Amies or Stuart may be used for swabs. Isolates should be sent on blood agar slants or TSA. Pseudo-membrane should be sent in leak-proof container with saline not formalin.
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition. Note: surveillance studies may label specimens according to protocol
Shipping Instructions which Include Specimen Handling Requirements	Once specimens are collected they should be shipped to the laboratory as soon as possible, between 24-48 hours. Sender is responsible for shipping charges and when shipping internationally must request CDC's import permit and include this with the Air Waybill. Additionally, the Pertussis/Diphtheria Laboratory requests that the sender contacts the laboratory by email or phone before shipping.
Methodology	Real Time Polymerase Chain Reaction (RT-PCR)
Turnaround Time	5 Days
Interferences & Limitations	Prior antibiotic treatment will adversely affect results. Suboptimal volumes of specimens may adversely affect the sensitivity of tests performed therefore it is very important to obtain an acceptable volume and a quality specimen. Clinical specimens collected subsequent to initiation of antimicrobial treatment may not be positive for *Corynebacterium* species due to reduction of organisms. Whenever possible, specimens collected prior to administration of antimicrobial agents should be used to determine infection with *Corynebacterium* species.
Additional Information	Diphtheria Antitoxin (DAT) testing should be performed on the patient prior to requesting molecular testing from CDC. *Corynebacterium* PCR testing is not currently used for diagnostic purposes for diphtheria and is not considered a confirmatory test.
CDC Points of Contact	Pam Cassiday (404) 639-1231 pxc1@cdc.gov Maria Tondella (404) 639-1239 mlt5@cdc.gov

Test Order

Corynebacterium diphtheriae/ulcerans/pseudotuberculosis ID and Toxigenicity

CDC-10169

Synonym(s)	Diphtheria
Pre-Approval Needed	**None**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Fresh subculture (24-48 hours old) of a pure culture isolate on a suitable agar slant
Minimum Volume Required	Not Applicable
Storage & Preservation of Specimen Prior to Shipping	Use plastic/glass screw-cap, leak-proof vials. Isolates can be refrigerated on an agar slant or common culture medium or frozen in TSB with glycerol or other liquid medium.
Transport Medium	Common transport medium such as blood agar, TSA, nutrient agar, slants/plates, or frozen
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition. Note: surveillance studies may label specimens according to protocol
Shipping Instructions which Include Specimen Handling Requirements	Once specimens are collected they should be shipped to the laboratory as soon as possible, between 24-48 hours. Sender is responsible for shipping charges and when shipping internationally must request CDC's import permit and include this with the Air Waybill. Additionally, the Pertussis/Diphtheria Laboratory requests that the sender contacts the laboratory by email or phone before shipping.
Methodology	Culture, API Coryne, Elek, Polymerase Chain Reaction (PCR)
Turnaround Time	1 Week
Interferences & Limitations	Isolates passed within 24-48 hours are preferred
Additional Information	None
CDC Points of Contact	Pam Cassiday (404) 639-1231 pxc1@cdc.gov Maria Tondella (404) 639-1239 mlt5@cdc.gov

Test Order

Corynebacterium diphtheriae/ulcerans/pseudotuberculosis

Isolation, ID, Toxigenicity

CDC-10168

Synonym(s)	Diphtheria
Pre-Approval Needed	**None**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Throat, nasal and wound swabs, pseudo-membrane, and sputum
Minimum Volume Required	0.5 mL
Storage & Preservation of Specimen Prior to Shipping	Use plastic/glass screw-cap, leak-proof vials. Store refrigerated.
Transport Medium	Common transport media such as Amies or Stuart may be used for swabs. Pseudo-membrane should be sent in leak-proof container with saline not formalin.
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition. Note: surveillance studies may label specimens according to protocol
Shipping Instructions which Include Specimen Handling Requirements	Once specimens are collected they should be shipped to the laboratory as soon as possible, between 24-48 hours. Sender is responsible for shipping charges and when shipping internationally must request CDC's import permit and include this with the Air Waybill. Additionally, the Pertussis/Diphtheria Laboratory requests that the sender contacts the laboratory by email or phone before shipping.
Methodology	Culture, Polymerase Chain Reaction (PCR), API Coryne, Elek
Turnaround Time	1 Week
Interferences & Limitations	Prior antibiotic treatment will adversely affect results. Suboptimal volumes of specimens may adversely affect the sensitivity of tests performed therefore it is very important to obtain an acceptable volume and a quality specimen. Clinical specimens collected subsequent to initiation of antimicrobial treatment may not be positive for *Corynebacterium* species due to reduction of organisms. Whenever possible, specimens collected prior to administration of antimicrobial agents should be used to determine infection with *Corynebacterium* species.
Additional Information	None
CDC Points of Contact	Pam Cassiday (404) 639-1231 pxc1@cdc.gov Maria Tondella (404) 639-1239 mlt5@cdc.gov

Test Order

Corynebacterium species (Not *C. diphtheriae*) ID

CDC-10136

Synonym(s)	Diptheria
Pre-Approval Needed	**None**
Supplemental Information Required	**Please notify laboratory prior to shipment if this is a critical care specimen**
Supplemental Form	**None**
Performed on Specimens From	Human and Food/Environmental/Medical Devices/Biologics
Acceptable Sample/ Specimen Type for Testing	Pure culture isolate on a suitable agar slant medium; Consultation required for other sample/specimen types
Minimum Volume Required	Not Applicable
Storage & Preservation of Specimen Prior to Shipping	Keep specimen refrigerated if unable to ship immediately
Transport Medium	Not Applicable
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Ship specimen Monday-Thursday, overnight to avoid weekend deliveries
Methodology	Primary Culture based on specimen type, MALDI-TOF, 16S sequence based identification
Turnaround Time	3 Weeks
Interferences & Limitations	The 3 week turnaround time applies to all tests unless biochemical and/or phenotypic analysis are required, which could take up to 2 months for test results.
Additional Information	If available, please provide patient history including if the patient has used a catheter and/or if the patient is immunocompromised.
CDC Points of Contact	John McQuiston (404) 639-0270 zje8@cdc.gov Anne Whitney (404) 639-1374 amw0@cdc.gov

Test Order

Coxiella burnetii Molecular Detection

CDC-10304

Synonym(s)	Q fever
Pre-Approval Needed	**None**
Supplemental Information Required	**Prior approval is required if the following information is not provided: - Suspected Agent - Travel and exposure history (including animals, arthropods, etc.) - Date of illness onset (and time if available) - Specimen type (e.g., serum, whole blood, tissue, etc.) - Test requested - Brief clinical summary (including details of antibiotic therapy and dates) and pertinent clinical findings**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Acute samples only, anticoagulated whole blood collected in Ethylenediaminetetraacetic acid (EDTA) treated tubes preferred; serum; fresh tissue biopsy
Minimum Volume Required	1.0 mL
Storage & Preservation of Specimen Prior to Shipping	Ideally keep specimen at a refrigerated temperature not frozen. If previously frozen, then keep specimen frozen.
Transport Medium	Ethylenediaminetetraacetic acid (EDTA) blood tubes for blood; tissue in a sample collection tube
Specimen Labeling	Patient name and date of birth
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday - Thursday, overnight to avoid weekend deliveries. Specimen should be shipped refrigerated on cold packs.
Methodology	Real Time Polymerase Chain Reaction (PCR), Polymerase Chain Reaction (PCR), Sequencing
Turnaround Time	6 Weeks
Interferences & Limitations	Hemolysis in whole blood specimen will interfere with results. Multiple freeze thaw cycles and sample storage above refrigerated temperatures will interfere with proper nucleic acid extraction. If a specimen is drawn at convalescence it will reduce the chance of the target organism being present in blood. Avoid collection of blood specimen in heparin tubes.
Additional Information	The Rickettsial Zoonoses Branch Reference Diagnostic Laboratory aids State Laboratories in diagnosis of difficult samples/cases or if specialized tests are needed. Routine diagnostic samples should be sent to your State Laboratory or a commercial laboratory.
CDC Points of Contact	Cecilia Kato (404) 639-1075 ckato@cdc.gov Christopher Paddock (404) 639-1309 cdp9@cdc.gov

Test Order

Coxiella burnetii Serology

CDC-10305

Synonym(s)	Q fever
Pre-Approval Needed	**None**
Supplemental Information Required	**Prior approval is required if the following information is not provided: - Suspected Agent - Travel and exposure history (including animals, arthropods, etc.) - Date of illness onset (and time if available) - Specimen type (e.g., serum, whole blood, tissue, etc.) - Test requested - Brief clinical summary (including details of antibiotic therapy and dates) and pertinent clinical findings**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Serum -acute (during active stage of illness) -convalescent (2-4 weeks after acute stage)
Minimum Volume Required	1.0 mL
Storage & Preservation of Specimen Prior to Shipping	Ideally keep specimen at a refrigerated temperature not frozen. If previously frozen, then keep specimen frozen.
Transport Medium	Not Applicable
Specimen Labeling	Patient name and date of birth
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday - Thursday, overnight to avoid weekend deliveries. Specimen should be shipped refrigerated on cold packs.
Methodology	Indirect Fluorescence Assay (IFA)
Turnaround Time	6 Weeks
Interferences & Limitations	Multiple freeze thaw cycles may interfere with antigen binding. Use sterile technique to avoid contamination of sample as this may compromise the sample and interfere with the ability to get accurate results. Acute and convalescent serum is needed for accurate diagnosis and if unable to collect both please contact laboratory prior to shipping.
Additional Information	The Rickettsial Zoonoses Branch Reference Diagnostic Laboratory aids State Laboratories in diagnosis of difficult samples/cases or if specialized tests are needed. Routine diagnostic samples should be sent to your State Laboratory or a commercial laboratory.
CDC Points of Contact	Cecilia Kato (404) 639-1075 ckato@cdc.gov Christopher Paddock (404) 639-1309 cdp9@cdc.gov

Test Order

Coxiella Special Study

CDC-10306

Synonym(s)	Q fever
Pre-Approval Needed	**Kato, Cecilia, (404) 639-1075, ckato@cdc.gov** **Paddock, Christopher, (404) 639-1309, cdp9@cdc.gov**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human, Animal, and Food/Environmental/Medical Devices/Biologics
Acceptable Sample/ Specimen Type for Testing	To be determined
Minimum Volume Required	To be determined
Storage & Preservation of Specimen Prior to Shipping	To be determined
Transport Medium	To be determined
Specimen Labeling	To be determined
Shipping Instructions which Include Specimen Handling Requirements	To be determined
Methodology	
Turnaround Time	
Interferences & Limitations	To be determined
Additional Information	To be determined
CDC Points of Contact	Cecilia Kato (404) 639-1075 ckato@cdc.gov Christopher Paddock (404) 639-1309 cdp9@cdc.gov

Test Order

Cryptosporidium Special Study

CDC-10491

Synonym(s)	None
Pre-Approval Needed	**Roellig, Dawn M, (404) 718-4134, iyd4@cdc.gov** **Xiao, Lihua, (404) 718-4161, lax0@cdc.gov**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	None
Acceptable Sample/ Specimen Type for Testing	To be determined
Minimum Volume Required	To be determined
Storage & Preservation of Specimen Prior to Shipping	To be determined
Transport Medium	To be determined
Specimen Labeling	To be determined
Shipping Instructions which Include Specimen Handling Requirements	
Methodology	
Turnaround Time	
Interferences & Limitations	To be determined
Additional Information	To be determined
CDC Points of Contact	Dawn M Roellig (404) 718-4134 iyd4@cdc.gov Lihua Xiao (404) 718-4161 lax0@cdc.gov

Test Order

Cyclospora Molecular Detection

CDC-10477

Synonym(s)	*Cyclospora cayetenensis,* parasite
Pre-Approval Needed	**None**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human, Animal, and Food/Environmental/Medical Devices/Biologics
Acceptable Sample/ Specimen Type for Testing	Stool
Minimum Volume Required	0.5 g or 0.5ml
Storage & Preservation of Specimen Prior to Shipping	Stool collected in absence of preservatives must be kept refrigerated (4°C) or frozen. Stool samples in a PCR-compatible fixative, e.g. TotalFix, UniFix, EcoFix and modified PVA (Zn- or Cu-based), can be kept at room temperature. Alternatively stool specimens can also be mixed in potassium dichromate 2.5% (1:1 dilution) or in absolute ethanol (1:1 dilution).
Transport Medium	Not Applicable
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday – Thursday, overnight to avoid weekend deliveries. Ship fixed/preserved stool at room temperature. Ship unpreserved stool on wet ice (cold pack) if stored refrigerated or ship frozen (on dry ice) if stored frozen.
Methodology	Real-Time PCR
Turnaround Time	21 Days
Interferences & Limitations	Stool specimens fixed in formalin-containing preservatives or LV-PVA are not suitable for molecular studies.
Additional Information	None
CDC Points of Contact	Yvonne Qvarnstrom (404) 718-4123 bvp2@cdc.gov Theresa Benedict (404) 718-4124 tgd5@cdc.gov

Test Order

Cysticercosis Antigen ELISA

CDC-10490

Synonym(s)	None
Pre-Approval Needed	**None**
Supplemental Information Required	**THIS TEST IS NO LONGER PERFORMED AT CDC**
Supplemental Form	**None**
Performed on Specimens From	None
Acceptable Sample/ Specimen Type for Testing	
Minimum Volume Required	
Storage & Preservation of Specimen Prior to Shipping	
Transport Medium	
Specimen Labeling	
Shipping Instructions which Include Specimen Handling Requirements	
Methodology	
Turnaround Time	
Interferences & Limitations	
Additional Information	
CDC Points of Contact	John Noh (404) 718-4111 jxn1@cdc.gov Sukwan Handali (404) 718-4113 ahi0@cdc.gov

Test Order

Cysticercosis Serology

CDC-10459

Synonym(s)	Neurocysticercosis, *Taenia solium*, cysitcercus, EITB, LLGP-EITB, parasite
Pre-Approval Needed	**None**
Supplemental Information Required	**Exposure and travel history, include other relevant risk factors; clinical symptoms, treatment and relevant lab results.**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Serum, plasma; Cerebrospinal fluid (CSF)
Minimum Volume Required	0.5 mL
Storage & Preservation of Specimen Prior to Shipping	No specific requirements
Transport Medium	Not Applicable
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday – Thursday, overnight to avoid weekend deliveries. Ship specimen at room temperature, not on dry ice, as an etiologic agent.
Methodology	Immunoblot, Western Blot, Antibody Detection
Turnaround Time	18 Days
Interferences & Limitations	Substances known to interfere with immunoassays include: bilirubin, lipids, and hemoglobin
Additional Information	None
CDC Points of Contact	Isabel McAuliffe (404) 718-4100 ibm4@cdc.gov DPDx (404) 718-4120 dpdx@cdc.gov

Test Order

Cytomegalovirus (CMV) Detection

CDC-10263

Synonym(s)	CMV
Pre-Approval Needed	**Dollard, Shelia, (404) 639-2178, sgd5@cdc.gov** **Schmid, Scott, (404) 639-0066, dss1@cdc.gov**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Urine, saliva, and blood
Minimum Volume Required	200 uL
Storage & Preservation of Specimen Prior to Shipping	Keep specimen either refrigerated or frozen. Blood should be collected in EDTA or citrate tubes.
Transport Medium	Not Applicable
Specimen Labeling	Provide a specimen ID. Do not send specimen labeled with patient's name.
Shipping Instructions which Include Specimen Handling Requirements	Ship overnight Monday-Thursday, with cold packs or dry ice as an etiologic agent.
Methodology	Polymerase Chain Reaction (PCR)
Turnaround Time	1 Week
Interferences & Limitations	None
Additional Information	None
CDC Points of Contact	Shelia Dollard (404) 639-2178 sgd5@cdc.gov Scott Schmid (404) 639-0066 dss1@cdc.gov

Test Order

Cytomegalovirus (CMV) Serology

CDC-10264

Synonym(s)	CMV
Pre-Approval Needed	**Dollard, Sheila, (404) 639-2178, sgd5@cdc.gov** **Schmid, Scott, (404) 639-0066, dss1@cdc.gov**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Serum or plasma
Minimum Volume Required	500 uL
Storage & Preservation of Specimen Prior to Shipping	Keep specimen either refrigerated or frozen
Transport Medium	Not Applicable
Specimen Labeling	Provide a specimen ID. Do not send specimen labeled with patient's name.
Shipping Instructions which Include Specimen Handling Requirements	Ship overnight Monday-Thursday, with cold packs or dry ice as an etiologic agent.
Methodology	IgG antibody detected by EIA, IgM antibody detected by EIA
Turnaround Time	1 Week
Interferences & Limitations	None
Additional Information	None
CDC Points of Contact	Sheila Dollard (404) 639-2178 sgd5@cdc.gov Scott Schmid (404) 639-0066 dss1@cdc.gov

Test Order

Dengue Virus Diagnosis

CDC-10307

Synonym(s)	Dengue fever, Dengue
Pre-Approval Needed	**None**
Supplemental Information Required	**Dengue case investigation form must be filled out- See supplemental Form** **Additional Information on submitting specimen and the Spanish version of case investigation form are located at:** **http://www.cdc.gov/dengue/clinicalLab/laboratory.html**
Supplemental Form	**http://www.cdc.gov/dengue/resources/dengueCaseReports/DCIF_English.pdf**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Serum and others upon consultation with laboratory. The blood sample should be taken in a red-top or tiger-top tube.
Minimum Volume Required	0.5 mL
Storage & Preservation of Specimen Prior to Shipping	After blood is allowed to clot, separate serum by centrifugation and keep serum refrigerated at 4°C or frozen at -20°C (preferred). Citrate (collected in yellow top tubes) and heparin plasma (green top tubes) can be tested by RT-PCR. Violet-top (with EDTA) is not recommended for RT-PCR testing. Violet and or green-top tubes should not be used for serology testing (convalescent sample). Please refer to collection devices manufacturer instructions for more details. We recommend freezing the serum immediately after it is separated and to send on dry ice. If dry ice is not available, we recommend that the serum is kept refrigerated and delivered to the CDC Dengue Branch in cold packs.
Transport Medium	Not Applicable
Specimen Labeling	Include complete name, age, and sex of patient, home address, date of onset of symptoms, date sample was obtained, complete name and mailing address of the physician, laboratory, clinic, or hospital
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday-Thursday, overnight to avoid weekend deliveries Frozen specimen should be shipped on dry ice Refrigerated specimen should be shipped on ice packs Ship To: CDC Dengue Branch and Puerto Rico Department of Health 1324 Calle Cañada, San Juan, P. R. 00920-3860
Methodology	IgM by ELISA, NS1 Antigen Test, Polymerase Chain Reaction (PCR), Viral isolation, IgG seroconversion by ELISA
Turnaround Time	7 Days
Interferences & Limitations	Serological tests can cross react with other Flavivirus, such as West Nile Virus. Recent vaccinations for Yellow Fever Virus and Japanese Encephalitis Virus, Tick-borne Encephalitis Virus can cause cross reactive test results. Natural infections with St. Louis Encephalitis Virus and West Nile can cause cross reactive results. Hemolyzed or contaminated samples are not acceptable for serology testing. EDTA will affect PCR and serology results and Nitrate tubes will affect IgM results.

Test Order

Dengue Virus Diagnosis

CDC-10307

Additional Information	To diagnose dengue, the laboratory requires a serum sample obtained during the acute phase of the infection (DPO=0-5). If this sample is negative, then a second convalescent serum sample (that can be taken from day 6 after the onset of symptoms) is required to confirm the case. The case is confirmed with antibody (IgM or IgG) seroconversion. Informing the patient about the importance of returning for a second sample, and providing an appointment for a specific day and hour, will increase the probability of obtaining the second sample. Samples will be rejected if they are sent without form, form without sample, incomplete or illegible form - especially regarding date of onset of symptoms, date of sample collection and samples received more than a month after onset of illness.
CDC Points of Contact	Elizabeth Hunsperger (787) 706-2472 enh4@cdc.gov Jorge Munoz (787) 706-2460 ckq2@cdc.gov

Test Order

Dengue Virus Special Study

CDC-10308

Synonym(s)	None
Pre-Approval Needed	**Hunsperger, Elizabeth, (787) 706-2472, enh4@cdc.gov** **Munoz, Jorge, (787) 706-2469, ckq2@cdc.gov**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	To be determined
Minimum Volume Required	To be determined
Storage & Preservation of Specimen Prior to Shipping	To be determined
Transport Medium	To be determined
Specimen Labeling	To be determined
Shipping Instructions which Include Specimen Handling Requirements	To be determined
Methodology	
Turnaround Time	
Interferences & Limitations	To be determined
Additional Information	To be determined
CDC Points of Contact	Elizabeth Hunsperger (787) 706-2472 enh4@cdc.gov Jorge Munoz (787) 706-2469 ckq2@cdc.gov

Test Order

Ebola Identification

CDC-10309

Synonym(s)	None
Pre-Approval Needed	**Klena, John, (404) 639-0114, irc4@cdc.gov** **Rollin, Pierre, (404) 639-1124, pyr3@cdc.gov**
Supplemental Information Required	**See Supplemental Form**
Supplemental Form	http://www.cdc.gov/ncezid/dhcpp/vspb/pdf/specimen-submission.pdf
Performed on Specimens From	Human and Animal
Acceptable Sample/ Specimen Type for Testing	Frozen tissue, blood, and serum
Minimum Volume Required	1 mL
Storage & Preservation of Specimen Prior to Shipping	Specimen must be placed in plastic screw capped vials, frozen to -70°C, and kept frozen until shipment. See link to supplemental submission form for specific information on various specimen types.
Transport Medium	Not Applicable
Specimen Labeling	Patient name, patient ID #, specimen type, date collected
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday-Thursday overnight to avoid weekend deliveries. Specimen should be shipped frozen on dry ice. See supplemental submission forms for further details. Do not ship specimen without prior consultation and approval.
Methodology	Molecular Typing, Polymerase Chain Reaction (PCR)
Turnaround Time	10 Days
Interferences & Limitations	Specimen must remain frozen; warming or freeze thawing reduces sensitivity. Heparin may cause interference with the molecular tests and should be avoided.
Additional Information	Critical specimens will take less than 4 days to turn around. See link to supplemental submission forms for detailed information.
CDC Points of Contact	John Klena (404) 639-0114 irc4@cdc.gov Pierre Rollin (404) 639-1124 pyr3@cdc.gov

Test Order

Ebola Serology

CDC-10310

Synonym(s)	None
Pre-Approval Needed	**Klena, John, (404) 639-0114, irc4@cdc.gov** **Rollin, Pierre, (404) 639-1124, pyr3@cdc.gov**
Supplemental Information Required	**See Supplemental Form**
Supplemental Form	http://www.cdc.gov/ncezid/dhcpp/vspb/pdf/specimen-submission.pdf
Performed on Specimens From	Human and Animal
Acceptable Sample/ Specimen Type for Testing	Blood and serum
Minimum Volume Required	1 mL
Storage & Preservation of Specimen Prior to Shipping	Specimen must be kept cold (at or below 4°C). If possible place specimen in plastic screw capped vials. See link to supplemental submission form for specific information on various specimen types.
Transport Medium	Not Applicable
Specimen Labeling	Patient name, patient ID #, specimen type, date collected
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday-Thursday overnight to avoid weekend deliveries. Specimen should be shipped on cold packs or dry ice if frozen. See supplemental submission forms for further details. Do not ship specimen without prior consultation and approval.
Methodology	ELISA
Turnaround Time	10 Days
Interferences & Limitations	Specimen must remain frozen; warming or freeze thawing reduces sensitivity.
Additional Information	Critical specimens will take less than 4 days to turn around. See link to supplemental submission forms for detailed information.
CDC Points of Contact	John Klena (404) 639-0114 irc4@cdc.gov Pierre Rollin (404) 639-1124 pyr3@cdc.gov

Test Order

Echinococcosis Serology

CDC-10460

Synonym(s)	Hydatid Disease, *Echinococcus granulosus*, parasite
Pre-Approval Needed	**None**
Supplemental Information Required	**Exposure and travel history, include other relevant risk factors; clinical symptoms, treatment and relevant lab results.**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Serum and plasma
Minimum Volume Required	0.5 mL
Storage & Preservation of Specimen Prior to Shipping	No specific requirements
Transport Medium	Not Applicable
Specimen Labeling	Test subject to CLIA regulations require two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday – Thursday, overnight to avoid weekend deliveries. Ship specimen at room temperature, not on dry ice, as an etiologic agent.
Methodology	Immunoblot, Western Blot, Antibody detection
Turnaround Time	18 Days
Interferences & Limitations	Substances known to interfere with immunoassays include: bilirubin, lipids, and hemoglobin
Additional Information	None
CDC Points of Contact	Isabel McAuliffe (404) 718-4100 ibm4@cdc.gov DPDx (404) 718-4120 dpdx@cdc.gov

Test Order

Ehrlichia Molecular Detection

CDC-10499

Synonym(s)	Human monocytic ehrlichiosis and HME
Pre-Approval Needed	Kato, Cecilia, (404) 639-0152, ckato@cdc.gov Paddock, Christopher, (404) 639-1309, cdp9@cdc.gov
Supplemental Information Required	Prior approval is required if the following information is not provided: - Suspected Agent - Travel and exposure history (including animals, arthropods, etc.) - Date of illness onset (and time if available) - Specimen type (e.g., serum, whole blood, tissue, etc.) - Test requested - Brief clinical summary (including details of antibiotic therapy and dates) and pertinent clinical findings
Supplemental Form	None
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Acute samples only, anticoagulated whole blood collected in Ethylenediaminetetraacetic acid (EDTA) treated tubes preferred; serum; fresh tissue biopsy
Minimum Volume Required	1.0 mL
Storage & Preservation of Specimen Prior to Shipping	Ideally keep specimen at a refrigerated temperature not frozen. If previously frozen, then keep specimen frozen.
Transport Medium	Ethylenediaminetetraacetic acid (EDTA) blood tubes for blood; tissue in a sample collection tube
Specimen Labeling	Patient name and date of birth
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday-Thursday, overnight to avoid weekend deliveries. Specimen should be shipped refrigerated on cold packs.
Methodology	Real Time Polymerase Chain Reaction (PCR), Sequencing
Turnaround Time	6 Weeks
Interferences & Limitations	Hemolysis in whole blood specimen will interfere with results. Multiple freeze thaw cycles and sample storage above refrigerated temperatures will interfere with proper nucleic acid extraction. If a specimen is drawn at convalescence it will reduce the chance of the target organism being present in blood. Avoid collection of blood specimen in heparin tubes.
Additional Information	The Rickettsial Zoonoses Branch Reference Diagnostic Laboratory aids State Laboratories in diagnosis of difficult samples/cases or if specialized tests are needed. Routine diagnostic samples should be sent to your State Laboratory or a commercial laboratory.
CDC Points of Contact	Cecilia Kato (404) 639-0152 ckato@cdc.gov Christopher Paddock (404) 639-1309 cdp9@cdc.gov

Test Order

Ehrlichia Serology

CDC-10311

Synonym(s)	Human monocytic ehrlichiosis
Pre-Approval Needed	**None**
Supplemental Information Required	**Prior approval is required if the following information is not provided: - Suspected Agent - Travel and exposure history (including animals, arthropods, etc.) - Date of illness onset (and time if available) - Specimen type (e.g., serum, whole blood, tissue, etc.) - Test requested - Brief clinical summary (including details of antibiotic therapy and dates) and pertinent clinical findings**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Serum -acute (during active stage of illness) -convalescent (2-4 weeks after acute stage)
Minimum Volume Required	1.0 mL
Storage & Preservation of Specimen Prior to Shipping	Ideally keep specimen at a refrigerated temperature not frozen. If previously frozen, then keep specimen frozen.
Transport Medium	Not Applicable
Specimen Labeling	Patient name and date of birth
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday-Thursday, overnight to avoid weekend deliveries. Specimen should be shipped refrigerated on cold packs.
Methodology	Indirect Fluorescence Assay (IFA)
Turnaround Time	6 Weeks
Interferences & Limitations	Multiple freeze thaw cycles may interfere with antigen binding. Use sterile technique to avoid contamination of sample as this may compromise the sample and interfere with the ability to get accurate results. Acute and convalescent serum is needed for accurate diagnosis and if unable to collect both please contact laboratory prior to shipping.
Additional Information	The Rickettsial Zoonoses Branch Reference Diagnostic Laboratory aids State Laboratories in diagnosis of difficult samples/cases or if specialized tests are needed. Routine diagnostic samples should be sent to your State Laboratory or a commercial laboratory.
CDC Points of Contact	Cecilia Kato (404) 639-1075 ckato@cdc.gov Christopher Paddock (404) 639-1309 cdp9@cdc.gov

Test Order

Ehrlichia Special Study

CDC-10498

Synonym(s)	Human monocytic ehrlichiosis and HME
Pre-Approval Needed	**Kato, Cecilia, (404) 639-0152, ckato@cdc.gov** **Paddock, Christopher, (404) 639-1309, cdp9@cdc.gov**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human, Animal, and Food/Environmental/Medical Devices/Biologics
Acceptable Sample/ Specimen Type for Testing	To be determined
Minimum Volume Required	To be determined
Storage & Preservation of Specimen Prior to Shipping	To be determined
Transport Medium	To be determined
Specimen Labeling	To be determined
Shipping Instructions which Include Specimen Handling Requirements	To be determined
Methodology	Molecular detection, Serology, Culture, Immunohistochemistry (IHC), Other
Turnaround Time	
Interferences & Limitations	To be determined
Additional Information	To be determined
CDC Points of Contact	Cecilia Kato (404) 639-0152 ckato@cdc.gov Christopher Paddock (404) 639-1309 cdp9@cdc.gov

Test Order

Entamoeba histolytica/dispar Molecular Detection

CDC-10478

Synonym(s)	Amebiasis, *Entameba histolytica*, *Entameba dispar,* parasite
Pre-Approval Needed	**None**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Stool, liver aspirate
Minimum Volume Required	0.5 g or 0.5 ml
Storage & Preservation of Specimen Prior to Shipping	Specimens collected in the absence of preservatives must be kept refrigerated (4° C) or frozen. Stool samples in a PCR-compatible fixative, e.g. TotalFix, UniFix, EcoFix and modified PVA (Zn- or Cu-based), can be kept at room temperature. Alternatively stool specimens can also be mixed in potassium dichromate 2.5% (1:1 dilution) or in absolute ethanol (1:1 dilution).
Transport Medium	Not Applicable
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday - Thursday, overnight to avoid weekend deliveries. Ship fixed/preserved specimens at room temperature. Ship unpreserved specimens on wet ice (cold pack) if stored refrigerated or frozen (on dry ice) if stored frozen.
Methodology	Real-Time PCR
Turnaround Time	21 Days
Interferences & Limitations	Specimens fixed in formalin-containing preservatives or LV-PVA are not suitable for molecular studies.
Additional Information	None
CDC Points of Contact	Yvonne Qvarnstrom (404) 718-4123 bvp2@cdc.gov Theresa Benedict (404) 718-4124 tgd5@cdc.gov

Test Order

Enteric Isolation - Primary Specimen

CDC-10106

Synonym(s)	Enteric Pathogen Culture
Pre-Approval Needed	**Martin, Haley, (404) 639-1612, hvw0@cdc.gov** **Fitzgerald, Collette, (404) 639-0838, chf3@cdc.gov**
Supplemental Information Required	**Consult with EDLB contact before sending specimens. Targeted organisms include: *Salmonella, Shigella, Campylobacter,* STEC, pathogenic *Enterobacteriaceae, Listeria, Vibrio*, *Cronobacter*, and related foodborne and waterborne pathogens. Provide any preliminary results available.**
Supplemental Form	**None**
Performed on Specimens From	Human, Animal, and Food/Environmental/Medical Devices/Biologics
Acceptable Sample/ Specimen Type for Testing	Specimens that are acceptable will be determined upon consultation. Targeted organisms include: *Salmonella*, *Shigella*, *Campylobacter*, STEC, pathogenic *Enterobacteriaceae*, *Listeria*, *Vibrio*, *Cronobacter,* and related foodborne and waterborne pathogens.
Minimum Volume Required	Not Applicable
Storage & Preservation of Specimen Prior to Shipping	Storage and preservation are dependent upon consultation
Transport Medium	Transport medium is dependent upon consultation
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday-Thursday, overnight to avoid weekend deliveries Specifics of shipping will depend upon consultation
Methodology	Enrichment, Isolation, Phenotypic Identification (Serotyping), PCR testing for virulence markers
Turnaround Time	8 Weeks
Interferences & Limitations	None
Additional Information	None
CDC Points of Contact	Haley Martin (404) 639-1612 hvw0@cdc.gov Collette Fitzgerald (404) 639-0838 chf3@cdc.gov

Test Order

Enterovirus Detection and Identification

CDC-10312

Synonym(s)	Enterovirus (EV), coxsackieviruses (CVA) (CVB), Echovirus
Pre-Approval Needed	**None**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human, Animal, and Food/Environmental/Medical Devices/Biologics
Acceptable Sample/ Specimen Type for Testing	Specimens include stool, serum, throat or nasal swab, cerebrospinal fluid (CSF), vesicle fluid or lesion, rectal, or nasopharyngeal (NP)/oropharyngeal (OP) swabs. Fresh or frozen tissues are preferred to Formalin fixed tissues, but will accept both.
Minimum Volume Required	Not Applicable
Storage & Preservation of Specimen Prior to Shipping	Vesicle fluid, rectal, or nasopharyngeal (NP)/oropharyngeal (OP) swabs: Use only sterile Dacron or rayon swabs with plastic shafts or if available, flocked swabs. Do NOT use calcium alginate swabs or swabs with wooden sticks, as they may contain substances that inactivate some viruses and inhibit some molecular assays. Place the swab immediately into a sterile viral containing 2mL of viral transport media without antibiotics, if possible. Stool: Collect in a clean, dry, leak-proof container. Serum: For each serum specimen, collect whole blood into a serum separator tube (marble or tiger top SST). Allow to clot at room temperature for a minimum of 30 minutes and centrifuge.
Transport Medium	Viral transport medium. If you do not have viral transport media, place the swab into a sterile vial without viral transport media. Aseptically, cut or break applicator sticks off near the tip to permit tightening of the cap. For NP/OP swabs, both swabs can be placed in the same vial, if desired.
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday - Thursday, overnight to avoid weekend deliveries. Frozen specimen should be shipped on dry ice and refrigerated specimen should be shipped on cold packs, as an etiologic agent. Include the full name, title, complete mailing address, email address, telephone, and fax number of the submitter. This will be the person to whom the final report will be mailed to.
Methodology	Molecular techniques
Turnaround Time	10 Days
Interferences & Limitations	Collecting specimens during the first week of illness is ideal although the virus can be shed in stool for several weeks. A specimen set collected in the second week of illness should include a rectal swab or stool sample.
Additional Information	Minimum volume for cell culture is 0.5-1 mL, for CSF is 60 uL, and for fresh frozen tissues is 2 mm^2. Stool: Stool may be collected within 14 days of symptom onset. Collect 10-20 g of stool in a clean, dry, leak-proof container.

	Serum: For each serum specimen, collect (adults and children > 6kg: 5 mL, children <6kg: 2 mL) of whole blood into a serum separator tube (marble or tiger top SST). A minimum of 1 mL of whole blood is needed for testing of pediatric patients. Allow to clot at room temperature for a minimum of 30 minutes and centrifuge.
CDC Points of Contact	Alan Nix (404) 639-1689 wbn0@cdc.gov Steve Oberste (404) 639-5497 mbo2@cdc.gov

Test Order

Entomology Special Study

CDC-10494

Synonym(s)	None
Pre-Approval Needed	**Lawrence, Gena, (404) 718-4315, geg7@cdc.gov** **Sutcliffe, Alice, (404) 718-4326, gok0@cdc.gov**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Animal
Acceptable Sample/ Specimen Type for Testing	To be determined
Minimum Volume Required	To be determined
Storage & Preservation of Specimen Prior to Shipping	To be determined
Transport Medium	To be determined
Specimen Labeling	To be determined
Shipping Instructions which Include Specimen Handling Requirements	To be determined
Methodology	
Turnaround Time	
Interferences & Limitations	To be determined
Additional Information	To be determined
CDC Points of Contact	Gena Lawrence (404) 718-4315 geg7@cdc.gov Alice Sutcliffe (404) 718-4326 gok0@cc.gov

Test Order

Environmental Microbiology Study

CDC-10232

Synonym(s)	None
Pre-Approval Needed	**Noble-Wang, Judith, (404) 639-2321, cux2@cdc.gov** **O'Connell, Heather, (404) 639-4864, ftw2@cdc.gov**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Food/Environmental/Medical Devices/Biologics
Acceptable Sample/ Specimen Type for Testing	To be determined
Minimum Volume Required	To be determined
Storage & Preservation of Specimen Prior to Shipping	To be determined
Transport Medium	To be determined
Specimen Labeling	To be determined
Shipping Instructions which Include Specimen Handling Requirements	To be determined
Methodology	
Turnaround Time	
Interferences & Limitations	To be determined
Additional Information	To be determined
CDC Points of Contact	Judith Noble-Wang (404) 639-2321 cux2@cdc.gov Heather O'Connell (404) 639-4864 ftw2@cdc.gov

Test Order

Epstein Barr Virus (EBV) Detection

CDC-10265

Synonym(s)	EBV
Pre-Approval Needed	**None**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Saliva, cerebrospinal fluid (CSF) or blood
Minimum Volume Required	200 uL
Storage & Preservation of Specimen Prior to Shipping	Keep specimen either refrigerated or frozen. Blood should be collected in EDTA or citrate tubes.
Transport Medium	Not Applicable
Specimen Labeling	Provide a specimen ID. Do not send specimen labeled with patient's name.
Shipping Instructions which Include Specimen Handling Requirements	Ship overnight Monday-Thursday, with cold packs or dry ice as an etiologic agent.
Methodology	Polymerase Chain Reaction (PCR)
Turnaround Time	1 Week
Interferences & Limitations	None
Additional Information	None
CDC Points of Contact	Scott Schmid (404) 639-0066 dss1@cdc.gov Kay Radford (404) 639-2192 kjr7@cdc.gov

Test Order

Escherichia and *Shigella* Identification, Serotyping, and Virulence Profiling

CDC-10114

Synonym(s)	None
Pre-Approval Needed	**None**
Supplemental Information Required	**Prior approval is not required for human specimens; Please call for approval prior to sending other specimen types.** **Provide any preliminary results available**
Supplemental Form	**None**
Performed on Specimens From	Human, Animal, and Food/Environmental/Medical Devices/Biologics
Acceptable Sample/ Specimen Type for Testing	Isolates
Minimum Volume Required	Not Applicable
Storage & Preservation of Specimen Prior to Shipping	Store and ship isolates at ambient temperatures not to exceed 35°C or at 4°C. Isolates held for more than a month should be frozen. Ship in compliance with Federal and local guidelines. Shiga toxin-positive bacteria should be shipped as Category A Infectious Substances.
Transport Medium	Ship cultures on nonselective nutrient or similar agar (TSA, HIA, etc.) in tubes with leak-proof screw cap closures. Agar plates are not acceptable.
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday-Thursday, overnight to avoid weekend deliveries Ship at ambient temperature in compliance with Federal and local guidelines. Shiga toxin-positive bacteria should be shipped as Category A Infectious Substances.
Methodology	Phenotypic Identification, Genetic Identification, Serotyping and Virulence Profiling, PCR for STEC and other pathotype-specific virulence genes
Turnaround Time	8 Weeks
Interferences & Limitations	Virulence and serotype modification genes encoded by mobile genetic elements (bacteriophages, plasmids and pathogenicity islands) may be spontaneously lost during transit and storage. Conditions that induce a stress response in the bacterium can affect the stability of virulence factors.
Additional Information	Specify type of subtyping requested in 'Previous Laboratory Results' on back of form. Epidemiologic metadata, PulseNet cluster code, and PFGE pattern designation requested if available. Turnaround times for routine isolates may be extended during major foodborne outbreak activities or due to limited availability of resources.
CDC Points of Contact	Nancy Strockbine (404) 639-4186 nas6@cdc.gov Devon Stripling (404) 639-2251 euo4@cdc.gov

Test Order

Escherichia and *Shigella* Study

CDC-10115

Synonym(s)	None
Pre-Approval Needed	**Strockbine, Nancy, (404) 639-4186, nas6@cdc.gov** **Stripling, Devon, (404) 639-2251, euo4@cdc.gov**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human, Animal, and Food/Environmental/Medical Devices/Biologics
Acceptable Sample/ Specimen Type for Testing	As directed by study protocol
Minimum Volume Required	Not Applicable
Storage & Preservation of Specimen Prior to Shipping	Ship as directed by study protocol in compliance with Federal and local guidelines. Shiga toxin-positive bacteria should be shipped as Category A Infectious Substances.
Transport Medium	Not Applicable
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Ship overnight growth on nonselective slant/stab such as TSA, HIA, etc.; screw cap tubes preferred or as directed by the study protocol.
Methodology	
Turnaround Time	
Interferences & Limitations	Virulence and serotype modification genes encoded by mobile genetic elements (bacteriophages, plasmids and pathogenicity islands) may be spontaneously lost during transit and storage. Conditions that induce a stress response in the bacterium can affect the stability of virulence factors.
Additional Information	None
CDC Points of Contact	Nancy Strockbine (404) 639-4186 nas6@cdc.gov Devon Stripling (404) 639-2251 euo4@cdc.gov

Test Order

Escherichia coli (STEC) serology (not serotyping)

CDC-10452

Synonym(s)	Enteric Pathogen
Pre-Approval Needed	**Aubert, Rachael, (404) 639-3816, vrl7@cdc.gov** **Korth, Michael, (404) 639-2099, mqk8@cdc.gov**
Supplemental Information Required	**Date of illness onset, date of serum collection, clinical diagnosis. Indicate if patient has HUS and onset date. If patient has undergone plasmaphoresis indicate date on submission form.**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Paired serum is preferred. Serum is always preferred but plasma is acceptable. Do not pool specimens.
Minimum Volume Required	100 uL (More Preferred)
Storage & Preservation of Specimen Prior to Shipping	Maintain serum at 4°C (preferred); frozen specimens acceptable.
Transport Medium	Separate serum from the clot and ship in a sterile labeled tube with the top tightly closed
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday-Thursday, overnight to avoid weekend deliveries. Please notify Rachael Aubert (vrl7@cdc.gov, (404) 639-3816) once specimens have been shipped to provide the tracking number. Ship with cold packs in compliance with federal and local guidelines
Methodology	EIA
Turnaround Time	3 Months
Interferences & Limitations	None
Additional Information	Paired serum specimens always preferred. Please send one tube per specimen submission form. Submit multiple forms if needed.
CDC Points of Contact	Rachael Aubert (404) 639-3816 vrl7@cdc.gov Michael Korth (404) 639-2099 mqk8@cdc.gov

Test Order

Escherichia coli and *Shigella* Subtyping

CDC-10116

Synonym(s)	*E. coli* Typing, *Shigella* Typing
Pre-Approval Needed	**None**
Supplemental Information Required	**Isolates should be identified to the species level by the sender. Provide any preliminary results available. Indicate subtyping method(s) requested on specimen submission form**
Supplemental Form	**None**
Performed on Specimens From	Human, Animal, and Food/Environmental/Medical Devices/Biologics
Acceptable Sample/ Specimen Type for Testing	Isolates
Minimum Volume Required	Not Applicable
Storage & Preservation of Specimen Prior to Shipping	Store isolates at ambient temperatures not to exceed 35°C or at 4°C. Isolates held for more than a month should be frozen
Transport Medium	Ship cultures on nonselective nutrient or similar agar (TSA, HIA, etc.) in tubes with leak-proof screw cap closures. Agar plates are not acceptable.
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday-Thursday, overnight to avoid weekend deliveries Ship at ambient temperature in compliance with Federal and local guidelines. Shiga toxin-positive bacteria should be shipped as Category A Infectious Substances.
Methodology	Phenotypic Serotyping, Genetic Serotyping, Virulence Profiling, AST, PFGE, MLVA
Turnaround Time	8 Weeks
Interferences & Limitations	Virulence and serotype modification genes encoded by mobile genetic elements (bacteriophages, plasmids and pathogenicity islands) may be spontaneously lost during transit and storage. Conditions that induce a stress response in the bacterium can affect the stability of virulence factors and may affect the expression of O and H antigens.
Additional Information	Specify type of subtyping requested in 'Previous Laboratory Results' on back of form. Epidemiologic metadata, PulseNet cluster code, and PFGE pattern designation requested if available. Turnaround times for routine isolates may be extended during major foodborne outbreak activities or due to limited availability of resources.
CDC Points of Contact	Nancy Strockbine (404) 639-4186 nas6@cdc.gov Devon Stripling (404) 639-2251 euo4@cdc.gov

Test Order

Filariasis Serology

CDC-10462

Synonym(s)	*Brugia malayi*, *Wuchereria bancrofti*; Bancroftian filariasis, parasite
Pre-Approval Needed	**None**
Supplemental Information Required	**Exposure and travel history, include other relevant risk factors; clinical symptoms, treatment and relevant lab results.**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Serum or Plasma
Minimum Volume Required	0.5 mL
Storage & Preservation of Specimen Prior to Shipping	No specific requirements
Transport Medium	Not Applicable
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday – Thursday, overnight to avoid weekend deliveries. Ship specimen at room temperature, not on dry ice, as an etiologic agent.
Methodology	EIA, ELISA, Antibody Detection
Turnaround Time	18 Days
Interferences & Limitations	Substances known to interfere with immunoassays include: bilirubin, lipids, and hemoglobin
Additional Information	None
CDC Points of Contact	Isabel McAuliffe (404) 718-4100 ibm4@cdc.gov DPDx (404) 718-4120 dpdx@cdc.gov

Test Order

Francisella tularensis Culture and Identification

CDC-10313

Synonym(s)	Tularemia
Pre-Approval Needed	**None**
Supplemental Information Required	**Please include submitting agency, contact name, address, phone number, specimen identifier, patient name, specimen source and type, sex and date of birth, symptoms of onset, sample collection date, and clinical information including type and date of treatment patient has received.**
Supplemental Form	**None**
Performed on Specimens From	Human and Animal
Acceptable Sample/ Specimen Type for Testing	Human: lymph node aspirate, sputum, bronchial/tracheal wash, pleural fluid, blood, ulcer swab, biopsy/autopsy specimens (sections of lymph node, lung, liver, spleen); Animal: Necropsy specimen (lymph node, lung, liver or spleen).
Minimum Volume Required	Not Applicable
Storage & Preservation of Specimen Prior to Shipping	Store specimens containing suspected live bacteria at 2°-8°C to maintain viability. If processing is delayed, tissue samples can be directly frozen at -70°C. Store samples for culture of live bacteria without preservatives (formaldehyde, alcohol), at 2°-8°C (not frozen). Anticoagulants such as heparin, citrate and EDTA are acceptable because they do not inhibit the viability of bacteria.
Transport Medium	Respiratory specimens, lymph node aspirates, blood, tissue/biopsy/autopsy/necropsy specimens should all be transported at 4°C. Swabs must be in a Cary-Blair or Amies medium, not frozen. If tissue biopsy/autopsy/necropsy transport is delayed, tissue samples can be directly frozen at -70°C.
Specimen Labeling	Specimen identifier and patient name
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday-Thursday, overnight to avoid weekend deliveries. All packages must be addressed to: Centers for Disease Control and Prevention Bacterial Diseases Branch Attn: John Young 3156 Rampart Road Fort Collins, CO 80521 Frozen specimen should be shipped on dry ice Refrigerated specimen should be shipped on ice packs
Methodology	Culture, Direct Fluorescent Antibody (DFA), Biochemical subtyping
Turnaround Time	3 Weeks
Interferences & Limitations	Samples for testing by culture should be taken prior to antibiotic treatment
Additional Information	None
CDC Points of Contact	Jeannine Petersen (970) 266-3524 nzp0@cdc.gov Marty Schriefer (970) 221-6479 mms7@cdc.gov

Test Order

Francisella tularensis Serology

CDC-10314

Synonym(s)	Tularemia
Pre-Approval Needed	**None**
Supplemental Information Required	**Please include submitting agency, contact name, address, phone number, specimen identifier, patient name, specimen source and type, sex and date of birth, symptoms of onset, sample collection date, and clinical information including type and date of treatment patient has received.**
Supplemental Form	**None**
Performed on Specimens From	Human and Animal
Acceptable Sample/ Specimen Type for Testing	Serum
Minimum Volume Required	500 uL
Storage & Preservation of Specimen Prior to Shipping	Sera may be stored at 2°-8°C for up to 14 days. If testing is delayed for a longer period, serum samples may be frozen.
Transport Medium	Not Applicable
Specimen Labeling	Specimen identifier and patient name
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday-Thursday, overnight to avoid weekend deliveries. All packages must be addressed to: Centers for Disease Control and Prevention Bacterial Diseases Branch Attn: John Young 3156 Rampart Road Fort Collins, CO 80521 Frozen specimen should be shipped on dry ice Refrigerated specimen should be shipped on ice packs
Methodology	Microagglutination
Turnaround Time	2 Weeks
Interferences & Limitations	Hemolyzed samples interfere with test results
Additional Information	None
CDC Points of Contact	Jeannine Petersen (970) 266-3524 nzp0@cdc.gov Marty Schriefer (970) 221-6479 mms7@cdc.gov

Test Order

Francisella tularensis Special Study

CDC-10315

Synonym(s)	None
Pre-Approval Needed	**Petersen, Jeannine, (970) 266-3524, nzp0@cdc.gov** **Schriefer, Marty, (970) 221-6479, mms7@cdc.gov**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human and Animal
Acceptable Sample/ Specimen Type for Testing	To be determined
Minimum Volume Required	To be determined
Storage & Preservation of Specimen Prior to Shipping	To be determined
Transport Medium	To be determined
Specimen Labeling	To be determined
Shipping Instructions which Include Specimen Handling Requirements	To be determined
Methodology	
Turnaround Time	
Interferences & Limitations	To be determined
Additional Information	To be determined
CDC Points of Contact	Jeannine Petersen (970) 266-3524 nzp0@cdc.gov Marty Schriefer (970) 221-6479 mms7@cdc.gov

Test Order
Fungal Identification
CDC-10179

Synonym(s)	Fungal identification, mold identification, yeast identification
Pre-Approval Needed	**None**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human, Animal, and Food/Environmental/Medical Devices/Biologics
Acceptable Sample/ Specimen Type for Testing	Pure culture isolate
Minimum Volume Required	Not Applicable
Storage & Preservation of Specimen Prior to Shipping	Isolates can be refrigerated or kept at an ambient temperature
Transport Medium	Isolates should be on a suitable agar slant
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday-Thursday, overnight to avoid weekend deliveries Specimen should be shipped at ambient temperature
Methodology	Phenotypic Testing, DNA Sequencing
Turnaround Time	4 Weeks
Interferences & Limitations	None
Additional Information	None
CDC Points of Contact	Mary Brandt (404) 639-0281 mbb4@cdc.gov Shawn Lockhart (404) 639-2569 gyi2@cdc.gov

Test Order

Fungal Serology – *Basidiobolus*

CDC-10183

Synonym(s)	Fungal serology; fungal complement fixation; fungal immunodiffusion
Pre-Approval Needed	**None**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human and Animal
Acceptable Sample/ Specimen Type for Testing	Serum; CSF. Plasma is not accepted
Minimum Volume Required	0.5 mL
Storage & Preservation of Specimen Prior to Shipping	Specimens should be kept either refrigerated or frozen
Transport Medium	Not Applicable
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday-Thursday, overnight to avoid weekend deliveries Refrigerated specimen at 4°C should be shipped on cold packs Frozen specimen should be shipped on dry ice
Methodology	Complement Fixation, Immunodiffusion
Turnaround Time	2 Weeks
Interferences & Limitations	Hemolysis and lipidemia may interfere with the test results
Additional Information	Serum should be prepared as soon as possible after drawing blood to prevent hemolysis
CDC Points of Contact	Mary Brandt (404) 639-0281 mbb4@cdc.gov Mark Lindsley (404) 639-4340 mil6@cdc.gov

Test Order

Fungal Serology – *Histoplasma*, *Blastomyces*, *Coccidioides*

CDC-10180

Synonym(s)	Fungal serology, fungal complement fixation, fungal immunodiffusion
Pre-Approval Needed	**None**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human and Animal
Acceptable Sample/ Specimen Type for Testing	Serum; CSF. Plasma is not accepted
Minimum Volume Required	0.5 mL
Storage & Preservation of Specimen Prior to Shipping	Specimens should be kept either refrigerated or frozen
Transport Medium	Not Applicable
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday-Thursday, overnight to avoid weekend deliveries Refrigerated specimen at 4°C should be shipped on cold packs Frozen specimen should be shipped on dry ice
Methodology	Complement Fixation, Immunodiffusion
Turnaround Time	4 Weeks
Interferences & Limitations	Hemolysis and lipidemia may interfere with the test results
Additional Information	Serum should be prepared as soon as possible after drawing blood to prevent hemolysis
CDC Points of Contact	Mary Brandt (404) 639-0281 mbb4@cdc.gov Mark Lindsley (404) 639-4340 mil6@cdc.gov Shawn Lockhart (404) 639-2569 gyi2@cdc.gov

Test Order

Fungal Serology - *Paracoccidioides*

CDC-10184

Synonym(s)	Fungal serology; fungal complement fixation; fungal immunodiffusion
Pre-Approval Needed	**None**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human and Animal
Acceptable Sample/ Specimen Type for Testing	Serum; CSF. Plasma is not accepted
Minimum Volume Required	0.5 mL
Storage & Preservation of Specimen Prior to Shipping	Specimens should be kept either refrigerated or frozen
Transport Medium	Not Applicable
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday-Thursday, overnight to avoid weekend deliveries Refrigerated specimen at 4°C should be shipped on cold packs Frozen specimen should be shipped on dry ice
Methodology	Complement Fixation, Immunodiffusion
Turnaround Time	4 Weeks
Interferences & Limitations	Hemolysis and lipidemia may interfere with the test results
Additional Information	Serum should be prepared as soon as possible after drawing blood to prevent hemolysis
CDC Points of Contact	Mary Brandt (404) 639-0281 mbb4@cdc.gov Mark Lindsley (404) 639-4340 mil6@cdc.gov Shawn Lockhart (404) 639-2569 gyi2@cdc.gov

Test Order

Fungal Serology – *Sporothrix*

CDC-10182

Synonym(s)	Fungal serology, fungal complement fixation, fungal immunodiffusion, latex agglutination for *Sporothrix*
Pre-Approval Needed	**None**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human and Animal
Acceptable Sample/ Specimen Type for Testing	Serum; CSF. Plasma is not accepted
Minimum Volume Required	0.5 mL
Storage & Preservation of Specimen Prior to Shipping	Specimens should be kept either refrigerated or frozen
Transport Medium	Not Applicable
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday-Thursday, overnight to avoid weekend deliveries Refrigerated specimen at 4°C should be shipped on cold packs Frozen specimen should be shipped on dry ice
Methodology	Complement Fixation, Immunodiffusion, Latex Agglutination
Turnaround Time	2 Weeks
Interferences & Limitations	Hemolysis and lipidemia may interfere with the test results
Additional Information	Serum should be prepared as soon as possible after drawing blood to prevent hemolysis
CDC Points of Contact	Mary Brandt (404) 639-0281 mbb4@cdc.gov Mark Lindsley (404) 639-4340 mil6@cdc.gov Shawn Lockhart (404) 639-2569 gyi2@cdc.gov

Test Order

Fungal Study

CDC-10181

Synonym(s)	None
Pre-Approval Needed	**Lockhart, Shawn, (404) 639-2569, gyi2@cdc.gov** **Brandt, Mary, (404) 639-0281, mbb4@cdc.gov**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human and Animal
Acceptable Sample/ Specimen Type for Testing	Not Applicable
Minimum Volume Required	Not Applicable
Storage & Preservation of Specimen Prior to Shipping	To be determined
Transport Medium	To be determined
Specimen Labeling	To be determined
Shipping Instructions which Include Specimen Handling Requirements	To be determined
Methodology	
Turnaround Time	
Interferences & Limitations	To be determined
Additional Information	None
CDC Points of Contact	Shawn Lockhart (404) 639-2569 gyi2@cdc.gov Mary Brandt (404) 639-0281 mbb4@cdc.gov

Test Order

Gastroenteritis Virus Special Study

CDC-10316

Synonym(s)	None
Pre-Approval Needed	**Vinje, Jan, (404) 639-3721, ahx8@cdc.gov**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	To be determined
Minimum Volume Required	To be determined
Storage & Preservation of Specimen Prior to Shipping	To be determined
Transport Medium	To be determined
Specimen Labeling	To be determined
Shipping Instructions which Include Specimen Handling Requirements	To be determined
Methodology	
Turnaround Time	
Interferences & Limitations	To be determined
Additional Information	To be determined
CDC Points of Contact	Jan Vinje (404) 639-3721 ahx8@cdc.gov Leslie Barclay (404) 639-1159 gvm3@cdc.gov

Test Order

Genital Ulcer Disease (Syphilis, Chancroid, Herpes) Molecular Detection

CDC-10174

Synonym(s)	GUD
Pre-Approval Needed	**None**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Ulcer swabs, FFPE tissues or frozen tissues, and aspirates from ulcer or buboes
Minimum Volume Required	Not Applicable
Storage & Preservation of Specimen Prior to Shipping	FFPE can be kept at room temperature and swabs and other specimens should be kept frozen
Transport Medium	Nucleic Acid Amplification Test (NAAT) commercial transport medium, PBS, Saline or TRIS buffer
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday – Thursday, overnight to avoid weekend deliveries. Ship FFPE at room temperature and frozen specimen should be shipped on dry ice, as an etiologic agent.
Methodology	PCR
Turnaround Time	2 Weeks
Interferences & Limitations	None
Additional Information	None
CDC Points of Contact	Cheng Chen (404) 639-3154 cyc1@cdc.gov Kai Chi (404) 639-0694 krc2@cdc.gov

Test Order

Gram Negative Bacillus (Non-enteric/Nonfermenter) ID

CDC-10135

Synonym(s)	GNR, Gram Negative Rod
Pre-Approval Needed	**None**
Supplemental Information Required	**Please notify laboratory prior to shipment if this is a critical care specimen**
Supplemental Form	**None**
Performed on Specimens From	Human and Food/Environmental/Medical Devices/Biologics
Acceptable Sample/ Specimen Type for Testing	Pure culture isolate on a suitable agar slant medium; Consultation required for other sample/specimen types
Minimum Volume Required	Not Applicable
Storage & Preservation of Specimen Prior to Shipping	Keep specimen refrigerated if unable to ship immediately
Transport Medium	Not Applicable
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Ship specimen Monday-Thursday, overnight to avoid weekend deliveries
Methodology	Primary Culture based on specimen type, MALDI-TOF, 16S sequence based identification
Turnaround Time	3 Weeks
Interferences & Limitations	The 3 week turnaround time applies to all tests unless biochemical and/or phenotypic analysis are required, which could take up to 2 months for test results.
Additional Information	If available, please provide patient history including if the patient has used a catheter and/or if the patient is immunocompromised.
CDC Points of Contact	John McQuiston (404) 639-0270 zje8@cdc.gov Anne Whitney (404) 639-1374 amw0@cdc.gov

Test Order

Gram Negative Coccus (Not GC or *meningococcus*) ID

CDC-10138

Synonym(s)	*Neisseria* Identification, GNC
Pre-Approval Needed	**None**
Supplemental Information Required	**Please notify laboratory prior to shipment if this is a critical care specimen**
Supplemental Form	**None**
Performed on Specimens From	Human and Food/Environmental/Medical Devices/Biologics
Acceptable Sample/ Specimen Type for Testing	Pure culture isolate on a suitable agar slant medium; Consultation required for other sample/specimen types
Minimum Volume Required	Not Applicable
Storage & Preservation of Specimen Prior to Shipping	Keep specimen refrigerated if unable to ship immediately
Transport Medium	Not Applicable
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Ship specimen Monday-Thursday, overnight to avoid weekend deliveries
Methodology	Primary Culture based on specimen type, MALDI-TOF, 16S sequence based identification
Turnaround Time	3 Weeks
Interferences & Limitations	The 3 week turnaround time applies to all tests unless biochemical and/or phenotypic analysis are required, which could take up to 2 months for test results.
Additional Information	If available, please provide patient history including if the patient has used a catheter and/or if the patient is immunocompromised.
CDC Points of Contact	John McQuiston (404) 639-0270 zje8@cdc.gov Anne Whitney (404) 639-1374 amw0@cdc.gov

Test Order

Gram Positive Bacillus ID

CDC-10137

Synonym(s)	Gram Positive Rod Identification, GPB, GPR
Pre-Approval Needed	**None**
Supplemental Information Required	**Please notify laboratory prior to shipment if this is a critical care specimen**
Supplemental Form	**None**
Performed on Specimens From	Human and Food/Environmental/Medical Devices/Biologics
Acceptable Sample/ Specimen Type for Testing	Pure culture isolate on a suitable agar slant medium; Consultation required for other sample/specimen types
Minimum Volume Required	Not Applicable
Storage & Preservation of Specimen Prior to Shipping	Keep specimen refrigerated if unable to ship immediately
Transport Medium	Not Applicable
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Ship specimen Monday-Thursday, overnight to avoid weekend deliveries
Methodology	Primary Culture based on specimen type, MALDI-TOF, 16S sequence based identification
Turnaround Time	3 Weeks
Interferences & Limitations	The 3 week turnaround time applies to all tests unless biochemical and/or phenotypic analysis are required, which could take up to 2 months for test results.
Additional Information	If available, please provide patient history including if the patient has used a catheter and/or if the patient is immunocompromised.
CDC Points of Contact	John McQuiston (404) 639-0270 zje8@cdc.gov Anne Whitney (404) 639-1374 amw0@cdc.gov

Test Order

Haemophilus influenzae Identification and Serotyping

CDC-10221

Synonym(s)	*H. influenzae* ID and SAST, H. flu
Pre-Approval Needed	**None**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Pure culture isolate, frozen stock, primary specimen such as CSF, whole blood, serum, and other sterile site specimen types upon consultation.
Minimum Volume Required	0.25 mL
Storage & Preservation of Specimen Prior to Shipping	Store slants at an ambient temperature. Primary specimens or stocks should be kept frozen.
Transport Medium	Preferred medium include chocolate agar slants or frozen stocks. If possible, for the shipment of 10 or more specimens, please ship frozen stocks.
Specimen Labeling	Tests subject to CLIA regulations require two patient identifiers on the specimen container and the test requisition. Label ABCs/Enhanced Surveillance specimens with the state ID & accession number.
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday-Thursday overnight to avoid weekend deliveries. May ship on Fridays with prior approval only. Frozen specimens should be shipped on dry ice.
Methodology	Growth, Morphology, Biochemical Testing, Slide Agglutination Serotyping, Real-time PCR
Turnaround Time	30 Days
Interferences & Limitations	Improperly temperature controlled specimens/isolates can give false negative results.
Additional Information	Turnaround time: 30 days for real-time PCR testing of clinical specimens; 90 days for testing of enhanced surveillance submissions
CDC Points of Contact	Melissa Whaley (404) 639-3920 dbq3@cdc.gov Laurel Jenkins (404) 639-1340 knt9@cdc.gov Meningitis Laboratory (404) 639-1380

Test Order

Haemophilus influenzae Study

CDC-10222

Synonym(s)	None
Pre-Approval Needed	**Wang, Xin, (404) 639-5474, gqe8@cdc.gov** **Briere, Elizabeth, (404) 639-0732, ejc0@cdc.gov**
Supplemental Information Required	**Brief description of study or surveillance program.** **Supplemental Form Required: CDC Meningitis Laboratory: Molecular Typing Request Submission Form (provided upon request by CDC Meningitis Laboratory).**
Supplemental Form	
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Pure culture isolate or frozen stock.
Minimum Volume Required	N/A
Storage & Preservation of Specimen Prior to Shipping	Store slants at ambient temperature. Stocks should be kept frozen.
Transport Medium	Chocolate agar slants or frozen stocks.
Specimen Labeling	Tests subject to CLIA regulations require two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday-Thursday overnight to avoid weekend deliveries. May ship on Fridays with prior approval only.
Methodology	Pulsed Field Gel Electrophoresis (PFGE), Multilocus Sequence Typing (MLST), other testing
Turnaround Time	
Interferences & Limitations	To be determined
Additional Information	To be determined
CDC Points of Contact	Xin Wang (404) 639-5474 gqe8@cdc.gov Melissa Whaley (404) 639-3920 dbq3@cdc.gov

Test Order

Haemophilus species (Not *H. influenzae*/*H. ducreyi*) ID

CDC-10141

Synonym(s)	None
Pre-Approval Needed	**None**
Supplemental Information Required	**Please notify laboratory prior to shipment if this is a critical care specimen**
Supplemental Form	**None**
Performed on Specimens From	Human and Food/Environmental/Medical Devices/Biologics
Acceptable Sample/ Specimen Type for Testing	Pure culture isolate on a suitable agar slant medium; Consultation required for other sample/specimen types
Minimum Volume Required	Not Applicable
Storage & Preservation of Specimen Prior to Shipping	Keep specimen refrigerated if unable to ship immediately
Transport Medium	Not Applicable
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Ship specimen Monday-Thursday, overnight to avoid weekend deliveries
Methodology	Biochemical analysis Primary Culture based on specimen type, MALDI-TOF, 16S sequence based identification
Turnaround Time	3 Weeks
Interferences & Limitations	The 3 week turnaround time applies to all tests unless biochemical and/or phenotypic analysis are required, which could take up to 2 months for test results.
Additional Information	If available, please provide patient history including if the patient has used a catheter and/or if the patient is immunocompromised.
CDC Points of Contact	John McQuiston (404) 639-0270 zje8@cdc.gov Anne Whitney (404) 639-1374 amw0@cdc.gov

Test Order

Hantavirus (No. American) Identification

CDC-10319

Synonym(s)	Hanta, HPS, HFRS
Pre-Approval Needed	**Klena, John, (404) 639-0114, irc4@cdc.gov** **Rollin, Pierre, (404) 639-1124, pyr3@cdc.gov**
Supplemental Information Required	**See Supplemental Form**
Supplemental Form	**http://www.cdc.gov/ncezid/dhcpp/vspb/pdf/specimen-submission.pdf**
Performed on Specimens From	Human and Animal
Acceptable Sample/ Specimen Type for Testing	Frozen tissue, blood, and serum
Minimum Volume Required	1 mL
Storage & Preservation of Specimen Prior to Shipping	Specimen must be placed in plastic screw capped vials, frozen to -70°C, and kept frozen until shipment. See link to supplemental submission form for specific information on various specimen types.
Transport Medium	Not Applicable
Specimen Labeling	Patient name, patient ID #, specimen type, date collected
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday-Thursday overnight to avoid weekend deliveries. Specimen should be shipped frozen on dry ice. See supplemental submission forms for further details. Do not ship specimen without prior consultation and approval.
Methodology	Molecular Typing, Polymerase Chain Reaction (PCR)
Turnaround Time	10 Days
Interferences & Limitations	Specimen must remain frozen; warming or freeze thawing reduces sensitivity. Heparin may cause interference with the molecular tests and should be avoided.
Additional Information	Critical specimens will take less than 4 days to turn around. See link to supplemental submission forms for detailed information.
CDC Points of Contact	John Klena (404) 639-0114 irc4@cdc.gov Pierre Rollin (404) 639-1124 pyr3@cdc.gov

Test Order

Hantavirus (So. American) Identification

CDC-10320

Synonym(s)	Hanta, HPS, HFRS
Pre-Approval Needed	**Klena, John, (404) 639-0114, irc4@cdc.gov** **Rollin, Pierre, (404) 639-1124, pyr3@cdc.gov**
Supplemental Information Required	**See Supplemental Form**
Supplemental Form	http://www.cdc.gov/ncezid/dhcpp/vspb/pdf/specimen-submission.pdf
Performed on Specimens From	Human and Animal
Acceptable Sample/ Specimen Type for Testing	Frozen tissue, blood, serum
Minimum Volume Required	1 mL
Storage & Preservation of Specimen Prior to Shipping	Specimen must be placed in plastic screw capped vials, frozen to -70°C, and kept frozen until shipment. See link to supplemental submission form for specific information on various specimen types.
Transport Medium	Not Applicable
Specimen Labeling	Patient name, patient ID #, specimen type, date collected
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday-Thursday overnight to avoid weekend deliveries. Specimen should be shipped frozen on dry ice. See supplemental submission forms for further details. Do not ship specimen without prior consultation and approval.
Methodology	Molecular Testing, Polymerase Chain Reaction (PCR)
Turnaround Time	10 Days
Interferences & Limitations	Specimen must remain frozen; warming or freeze thawing reduces sensitivity. Heparin may cause interference with the molecular tests and should be avoided.
Additional Information	Critical specimens will take less than 4 days to turn around. See link to supplemental submission forms for detailed information.
CDC Points of Contact	John Klena (404) 639-0114 irc4@cdc.gov Pierre Rollin (404) 639-1124 pyr3@cdc.gov

Test Order

Hantavirus Serology

CDC-10321

Synonym(s)	Hanta, HPS, HFRS, Hantaan
Pre-Approval Needed	**Klena, John, (404) 639-0114, irc4@cdc.gov** **Rollin, Pierre, (404) 639-1124, pyr3@cdc.gov**
Supplemental Information Required	**See Supplemental Form**
Supplemental Form	**http://www.cdc.gov/ncezid/dhcpp/vspb/pdf/specimen-submission.pdf**
Performed on Specimens From	Human and Animal
Acceptable Sample/ Specimen Type for Testing	Blood and serum
Minimum Volume Required	1 mL
Storage & Preservation of Specimen Prior to Shipping	Specimen must be kept cold (at or below 4°C). If possible place specimen in plastic screw capped vials. See link to supplemental submission form for specific information on various specimen types.
Transport Medium	Not Applicable
Specimen Labeling	Patient name, patient ID #, specimen type, date collected
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday-Thursday overnight to avoid weekend deliveries. Specimen should be shipped on cold packs or dry ice if frozen. See supplemental submission forms for further details. Do not ship specimen without prior consultation and approval.
Methodology	ELISA
Turnaround Time	10 Days
Interferences & Limitations	None
Additional Information	Critical specimens will take less than 4 days to turn around. See link to supplemental submission forms for detailed information.
CDC Points of Contact	John Klena (404) 639-0114 irc4@cdc.gov Pierre Rollin (404) 639-1124 pyr3@cdc.gov

Test Order

Healthcare-associated Outbreak Identification and Typing

CDC-10162

Synonym(s)	Healthcare Outbreak or Nosocomial Outbreak
Pre-Approval Needed	**Noble-Wang, Judith, (404) 639-2321, cux2@cdc.gov** **Moulton-Meissner, Heather, (404) 639-4864, ftw2@cdc.gov**
Supplemental Information Required	**Supplemental Line List required contact laboratory for more information**
Supplemental Form	**None**
Performed on Specimens From	Human and Food/Environmental/Medical Devices/Biologics
Acceptable Sample/ Specimen Type for Testing	Pure culture isolates and primary environmental specimen (swabs, wipes, water and other fluids, medical devices). In addition, fluids and products used for patient care.
Minimum Volume Required	Not Applicable
Storage & Preservation of Specimen Prior to Shipping	Keep specimen at a refrigerated temperature until ready for shipping
Transport Medium	Use an agar slant not a agar plate for isolates
Specimen Labeling	No patient identifiers. Please include specimen identifiers on Line List
Shipping Instructions which Include Specimen Handling Requirements	Ship isolates at ambient temperatures and ship environmental specimens on cold-packs. Ship overnight, Monday through Thursday, for delivery within 24 hours of collection.
Methodology	Phenotypic and Molecular Identification, PFGE, Culture, Other
Turnaround Time	3 Weeks
Interferences & Limitations	Holding environmental samples at room temperature >1 hour after collection may decrease recovery. Neutralization of chlorine residual in potable water is necessary during collection.
Additional Information	Turnaround time for nontuberculosis mycobacteria may take up to 8 weeks. Criteria for submission: -Prior consultation with CDC/DHQP Prevention and Response Branch on epidemiological investigation. Contact info: haioutbreak@cdc.gov or 404-639-4000. -If healthcare facility will be submitting samples directly to CDC they must receive prior approval from State Health Department. Provide State Health Department contact information. -For isolate submission, include the test method that was used to identify the specimen in the "Previous Laboratory Results/Comments" section.
CDC Points of Contact	Heather Moulton-Meissner (404) 639-4864 ftw2@cdc.gov Judith Noble-Wang (404) 639-2321 cux2@cdc.gov

Test Order

Helicobacter pylori Special Study

CDC-10117

Synonym(s)	None
Pre-Approval Needed	**Rudolph, Karen, (907) 729-3454, kmr2@cdc.gov**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Gastric biopsy
Minimum Volume Required	To be determined
Storage & Preservation of Specimen Prior to Shipping	Store at -70ºC
Transport Medium	Cysteine Freeze media
Specimen Labeling	Specimen ID number and area of stomach e.g. antrum or fundus
Shipping Instructions which Include Specimen Handling Requirements	Ship on dry ice
Methodology	Culture
Turnaround Time	15 Days
Interferences & Limitations	To be determined
Additional Information	Please provide shipping information to CDC Points of Contact prior to shipping specimens
CDC Points of Contact	Karen Rudolph (907) 729-3454 kmr2@cdc.gov Julie Morris (907) 729-3445 zbf2@cdc.gov

Test Order

Hendra Serology

CDC-10324

Synonym(s)	None
Pre-Approval Needed	**Klena, John, (404) 639-0114, irc4@cdc.gov** **Rollin, Pierre, (404) 639-1124, pyr3@cdc.gov**
Supplemental Information Required	**See Supplemental Form**
Supplemental Form	**http://www.cdc.gov/ncezid/dhcpp/vspb/pdf/specimen-submission.pdf**
Performed on Specimens From	Human and Animal
Acceptable Sample/ Specimen Type for Testing	Blood and serum
Minimum Volume Required	1 mL
Storage & Preservation of Specimen Prior to Shipping	Specimen must be kept cold (at or below 4°C). If possible place specimen in plastic screw capped vials. See link to supplemental submission form for specific information on various specimen types.
Transport Medium	Not Applicable
Specimen Labeling	Patient name, patient ID #, specimen type, date collected
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday-Thursday overnight to avoid weekend deliveries. Specimen should be shipped on cold packs or dry ice if frozen. See supplemental submission forms for further details. Do not ship specimen without prior consultation and approval.
Methodology	ELISA
Turnaround Time	10 Days
Interferences & Limitations	Specimen must remain frozen; warming or freeze thawing reduces sensitivity
Additional Information	Critical specimens will take less than 4 days to turn around. See link to supplemental submission forms for detailed information.
CDC Points of Contact	John Klena (404) 639-0114 irc4@cdc.gov Pierre Rollin (404) 639-1124 pyr3@cdc.gov

Test Order

Hepatitis A Serology, NAT and Genotyping

CDC-10325

Synonym(s)	HAV, Hepatitis A virus
Pre-Approval Needed	**Drobeniuc, Jan, (404) 639-3790, jqd6@cdc.gov** **Kamili, Saleem, (404) 639-4431, sek6@cdc.gov**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Serum, EDTA plasma, stool
Minimum Volume Required	1.5 mL
Storage & Preservation of Specimen Prior to Shipping	Specimens should be stored frozen
Transport Medium	Not Applicable
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Ship specimen Monday -Thursday overnight to avoid weekend deliveries Frozen specimen should be shipped on dry ice
Methodology	Total anti-HAV by Chemiluminescence, IgM anti-HAV by Chemiluminescence, HAV RNA, HAV Genotyping by NAT P2B Sequencing
Turnaround Time	1 Week
Interferences & Limitations	Hemolyzed specimen are not accepted
Additional Information	NAT based assays and genotyping may take up to 3 weeks for turn around time
CDC Points of Contact	Jan Drobeniuc (404) 639-3790 jqd6@cdc.gov Saleem Kamili (404) 639-4431 sek6@cdc.gov

Test Order

Hepatitis B Serology, NAT and Genotyping

CDC-10326

Synonym(s)	HBV, Hepatitis B virus
Pre-Approval Needed	**Drobeniuc, Jan, (404) 639-3790, jqd6@cdc.gov** **Kamili, Saleem, (404) 639-4431, sek6@cdc.gov**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Serum, EDTA plasma. Note: For Quantitative anti-HBs test - Serum only
Minimum Volume Required	2 mL
Storage & Preservation of Specimen Prior to Shipping	Specimens should be stored frozen
Transport Medium	Not Applicable
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Ship specimen Monday -Thursday overnight to avoid weekend deliveries Frozen specimen should be shipped on dry ice
Methodology	HBsAg by EIA, IgM anti-HBc by Chemiluminescence, Total anti-HBc by Chemiluminescence, Anti-HBs by Chemiluminescence, HBeAg by Chemiluminescence, Anti-Hbe by EIA, HBV DNA by TaqMan IVD, HBV Genotyping by NAT S Gene Sequencing
Turnaround Time	1 Week
Interferences & Limitations	Hemolyzed specimen are not accepted
Additional Information	NAT based assays and genotyping may take up to 3 weeks for turn around time
CDC Points of Contact	Jan Drobeniuc (404) 639-3790 jqd6@cdc.gov Saleem Kamili (404) 639-4431 sek6@cdc.gov

Test Order

Hepatitis B Surface Antigen Confirmatory Test

CDC-10451

Synonym(s)	HBV, Hepatitis B virus
Pre-Approval Needed	**Drobenuic, Jan, (404) 639-3790, jqd6@cdc.gov** **Kamili, Saleem, (404) 639-4431, sek6@cdc.gov**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Serum, EDTA Plasma
Minimum Volume Required	300uL
Storage & Preservation of Specimen Prior to Shipping	Specimens should be stored frozen at -20°C
Transport Medium	None
Specimen Labeling	Test subject to CLIA regulations require two patient identifiers on the specimen container and the test requisition
Shipping Instructions which Include Specimen Handling Requirements	Ship specimen Monday -Thursday overnight to avoid weekend deliveries Frozen specimen should be shipped on cold packs
Methodology	Neutralization
Turnaround Time	10 Days
Interferences & Limitations	Do not send whole blood or hemolyzed serum
Additional Information	None
CDC Points of Contact	Jan Drobenuic (404) 639-3790 jqd6@cdc.gov Saleem Kamili (404) 639-4431 sek6@cdc.gov

Test Order

Hepatitis C Serology, NAT and Genotyping

CDC-10327

Synonym(s)	HCV, Hepatitis C virus
Pre-Approval Needed	**Drobeniuc, Jan, (404) 639-3790, jqd6@cdc.gov** **Kamili, Saleem, (404) 639-4431, sek6@cdc.gov**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Serum, EDTA Plasma
Minimum Volume Required	2 mL
Storage & Preservation of Specimen Prior to Shipping	Specimens should be stored frozen
Transport Medium	Not Applicable
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Ship specimen Monday -Thursday overnight to avoid weekend deliveries Frozen specimen should be shipped on dry ice
Methodology	Anti-HCV by Chemiluminescence, HCV RNA by TaqMan IVD, HCV Genotyping by NAT NS5B Gene Sequencing
Turnaround Time	1 Week
Interferences & Limitations	Hemolyzed specimen are not accepted
Additional Information	NAT based assays and genotyping may take up to 3 weeks for turn around time
CDC Points of Contact	Jan Drobeniuc (404) 639-3790 jqd6@cdc.gov Saleem Kamili (404) 639-4431 sek6@cdc.gov

Test Order

Hepatitis D Serology, NAT and Genotyping

CDC-10328

Synonym(s)	HDV, Hepatitis D virus
Pre-Approval Needed	**Drobeniuc, Jan, (404) 639-3790, jqd6@cdc.gov** **Kamili, Saleem, (404) 639-4431, sek6@cdc.gov**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Serum, EDTA Plasma
Minimum Volume Required	2 mL
Storage & Preservation of Specimen Prior to Shipping	Specimens should be stored frozen
Transport Medium	Not Applicable
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Ship specimen Monday -Thursday overnight to avoid weekend deliveries Frozen specimen should be shipped on dry ice
Methodology	Total anti-HDV by EIA, HDV RNA by Real Time qRT-PCR, HDV Genotyping by direct sequence analysis
Turnaround Time	2 Weeks
Interferences & Limitations	Hemolyzed specimen are not accepted
Additional Information	NAT based assays and genotyping may take up to 3 weeks for turn around time
CDC Points of Contact	Jan Drobeniuc (404) 639-3790 jqd6@cdc.gov Saleem Kamili (404) 639-4431 sek6@cdc.gov

Test Order

Hepatitis E Serology, NAT and Genotyping

CDC-10329

Synonym(s)	HEV, Hepatitis E virus
Pre-Approval Needed	**Drobeniuc, Jan, (404) 639-3790, jqd6@cdc.gov** **Kamili, Saleem, (404) 639-4431, sek6@cdc.gov**
Supplemental Information Required	**See Supplemental Form**
Supplemental Form	**http://www.cdc.gov/hepatitis/HEV/LabTestingRequests.htm**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Serum, EDTA plasma, and stool
Minimum Volume Required	2 mL
Storage & Preservation of Specimen Prior to Shipping	Specimens should be stored frozen
Transport Medium	Not Applicable
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Ship specimen Monday -Thursday overnight to avoid weekend deliveries Frozen specimen should be shipped on dry ice
Methodology	IgM anti-HEV by EIA, IgG anti-HEV by EIA, HEV RNA by Real Time qRT-PCR, HEV Genotyping by direct sequence analysis
Turnaround Time	2 Weeks
Interferences & Limitations	Hemolyzed specimen are not accepted
Additional Information	NAT based assays and genotyping may take up to 3 weeks for turn around time
CDC Points of Contact	Jan Drobeniuc (404) 639-3790 jqd6@cdc.gov Saleem Kamili (404) 639-4431 sek6@cdc.gov

Test Order

Hepatitis Outbreak Investigation

CDC-10330

Synonym(s)	HAV, HBV, HCV, HDV, HEV, Hepatitis A virus, Hepatitis B virus, Hepatitis C virus, Hepatitis D virus, Hepatitis E virus
Pre-Approval Needed	**Drobeniuc, Jan, (404) 639-3790, jqd6@cdc.gov** **Kamili, Saleem, (404) 639-4431, sek6@cdc.gov**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human, Animal, and Food/Environmental/Medical Devices/Biologics
Acceptable Sample/ Specimen Type for Testing	Not Applicable
Minimum Volume Required	Not Applicable
Storage & Preservation of Specimen Prior to Shipping	No Specific Requirements
Transport Medium	Not Applicable
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	None
Methodology	
Turnaround Time	
Interferences & Limitations	None
Additional Information	None
CDC Points of Contact	Jan Drobeniuc (404) 639-3790 jqd6@cdc.gov Saleem Kamili (404) 639-4431 sek6@cdc.gov

Test Order

Hepatitis Special Study

CDC-10331

Synonym(s)	None
Pre-Approval Needed	**Drobeniuc, Jan, (404) 639-3790, jqd6@cdc.gov** **Kamili, Saleem, (404) 639-4431, sek6@cdc.gov**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human, Animal, and Food/Environmental/Medical Devices/Biologics
Acceptable Sample/ Specimen Type for Testing	To be determined
Minimum Volume Required	To be determined
Storage & Preservation of Specimen Prior to Shipping	To be determined
Transport Medium	To be determined
Specimen Labeling	To be determined
Shipping Instructions which Include Specimen Handling Requirements	None
Methodology	
Turnaround Time	
Interferences & Limitations	To be determined
Additional Information	To be determined
CDC Points of Contact	Jan Drobeniuc (404) 639-3790 jqd6@cdc.gov Saleem Kamili (404) 639-4431 sek6@cdc.gov

Test Order

Herpes Simplex Virus 1 Detection

CDC-10258

Synonym(s)	Oral herpes
Pre-Approval Needed	**None**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Skin lesion, cerebrospinal fluid (CSF) or saliva
Minimum Volume Required	200 uL (saliva)
Storage & Preservation of Specimen Prior to Shipping	Skin lesions should be kept dry and saliva can be kept either refrigerated or frozen.
Transport Medium	Not Applicable
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Ship specimen Monday-Thursday, overnight on cold packs or dry ice. Skin lesions should be shipped dry. Ship as an etiologic agent. See standard shipping instructions for biologic agent
Methodology	Polymerase Chain Reaction (PCR)
Turnaround Time	2 Days
Interferences & Limitations	None
Additional Information	None
CDC Points of Contact	Scott Schmid (404) 639-0066 dss1@cdc.gov Kay Radford (404) 639-2192 kjr7@cdc.gov

Test Order

Herpes Simplex Virus 1 Serology

CDC-10259

Synonym(s)	Oral herpes
Pre-Approval Needed	**None**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Serum, plasma, or cerebrospinal fluid (CSF)
Minimum Volume Required	200 uL
Storage & Preservation of Specimen Prior to Shipping	Keep specimen either refrigerated or frozen.
Transport Medium	Not Applicable
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Ship overnight Monday-Thursday, with cold packs or dry ice as an etiologic agent.
Methodology	IgG antibody detected by EIA
Turnaround Time	7 Days
Interferences & Limitations	None
Additional Information	None
CDC Points of Contact	Scott Schmid (404) 639-0066 dss1@cdc.gov Kay Radford (404) 639-2192 kjr7@cdc.gov

Test Order

Herpes Simplex Virus 2 Detection

CDC-10260

Synonym(s)	Genital herpes
Pre-Approval Needed	**None**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	None
Acceptable Sample/ Specimen Type for Testing	Skin lesion, cerebrospinal fluid (CSF) or saliva
Minimum Volume Required	200 uL (saliva)
Storage & Preservation of Specimen Prior to Shipping	Keep specimen either refrigerated or frozen. Skin lesions should be kept dry.
Transport Medium	Not Applicable
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Ship specimen Monday-Thursday, overnight on cold packs or dry ice. Skin lesions should be shipped dry. Ship as an etiologic agent.
Methodology	Polymerase Chain Reaction (PCR)
Turnaround Time	2 Days
Interferences & Limitations	None
Additional Information	None
CDC Points of Contact	Scott Schmid (404) 639-0066 dss1@cdc.gov Kay Radford (404) 639-2192 kjr7@cdc.gov

Test Order

Herpes Simplex Virus 2 Serology

CDC-10261

Synonym(s)	Genital herpes
Pre-Approval Needed	**None**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Serum, plasma, or cerebrospinal fluid (CSF)
Minimum Volume Required	200 uL
Storage & Preservation of Specimen Prior to Shipping	Keep specimen either refrigerated or frozen
Transport Medium	Not Applicable
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Ship overnight Monday-Thursday, with cold packs or dry ice as an etiologic agent.
Methodology	IgG antibody detected by EIA
Turnaround Time	7 Days
Interferences & Limitations	None
Additional Information	None
CDC Points of Contact	Scott Schmid (404) 639-0066 dss1@cdc.gov Kay Radford (404) 639-2192 kjr7@cdc.gov

Test Order

Herpesvirus Encephalitis Panel

CDC-10262

Synonym(s)	None
Pre-Approval Needed	**None**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Cerebrospinal fluid (CSF), saliva, whole blood, or skin lesions
Minimum Volume Required	200 uL
Storage & Preservation of Specimen Prior to Shipping	Keep specimen either refrigerated or frozen. Blood should be collected in EDTA or citrate tubes. Skin lesions should be kept dry.
Transport Medium	Not Applicable
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Ship overnight Monday -Thursday, with cold packs or dry ice as an etiologic agent.
Methodology	Polymerase Chain Reaction (PCR) for VZV, Polymerase Chain Reaction (PCR) for HSV1, Polymerase Chain Reaction (PCR) for HSV2, Polymerase Chain Reaction (PCR) for EBV, Polymerase Chain Reaction (PCR) for HHV6
Turnaround Time	7 Days
Interferences & Limitations	None
Additional Information	None
CDC Points of Contact	Scott Schmid (404) 639-0066 dss1@cdc.gov Kay Radford (404) 639-2192 kjr7@cdc.gov

Test Order

Herpesvirus Special Study

CDC-10270

Synonym(s)	None
Pre-Approval Needed	**Schmid, Scott, (404) 639-0066, dss1@cdc.gov**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	To be determined
Minimum Volume Required	Not Applicable
Storage & Preservation of Specimen Prior to Shipping	To be determined
Transport Medium	To be determined
Specimen Labeling	To be determined
Shipping Instructions which Include Specimen Handling Requirements	To be determined
Methodology	
Turnaround Time	
Interferences & Limitations	To be determined
Additional Information	To be determined
CDC Points of Contact	Scott Schmid (404) 639-0066 dss1@cdc.gov

Test Order

HIV antigen/antibody Combo

CDC-10485

Synonym(s)	None
Pre-Approval Needed	**None**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Serum or Plasma
Minimum Volume Required	1mL
Storage & Preservation of Specimen Prior to Shipping	2 days at ambient temperature; 7 days at 2-8°C. Specimens should be stored at -20°C for long-term storage and should not have more than 4 freeze/thaw cycles.
Transport Medium	
Specimen Labeling	Specimens and accompanying submission forms require 2 unique identifiers. Identifiers that protect the identity of the individual are preferred
Shipping Instructions which Include Specimen Handling Requirements	For best results, specimens should be shipped frozen on dry ice for overnight delivery to the HIV reference laboratory.
Methodology	EIA
Turnaround Time	21 Days
Interferences & Limitations	Do not heat inactivate specimens
Additional Information	None
CDC Points of Contact	Timothy Granade (404) 639-3850 txg1@cdc.gov Michele Owen (404) 639-1046 smo2@cdc.gov

Test Order

HIV Molecular Surveillance Study (International Only)

CDC-10332

Synonym(s)	None
Pre-Approval Needed	**Yang, Chunfu, (404) 639-4975, cxy0@cdc.gov** **DeVos, Joshua, (404) 639-5442, ext8@cdc.gov**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	To be determined
Minimum Volume Required	To be determined
Storage & Preservation of Specimen Prior to Shipping	To be determined
Transport Medium	To be determined
Specimen Labeling	All primary specimen containers must include 2 unique identifiers at the time of collection. The identifiers must be clearly labeled on each specimen and correspond to information on the requisition form. Surveillance studies and some protocols require 1 unique identifier (the ILB recommends 2 identifiers) de-linked from the patient. Do not include the patient's name or any other personally identifiable information. Results are not reported back to patient.
Shipping Instructions which Include Specimen Handling Requirements	To be determined
Methodology	
Turnaround Time	
Interferences & Limitations	To be determined
Additional Information	To be determined
CDC Points of Contact	Chunfu Yang (Primary POC) (404) 639-4975 cxy0@cdc.gov Joshua DeVos (Secondary POC) (404) 639-5442 ext8@cdc.gov

Test Order

HIV Serology NHANES

CDC-10279

Synonym(s)	HIV ELISA, HIV antibody
Pre-Approval Needed	**None**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Serum and/or plasma. The following anticoagulants are acceptable: EDTA, sodium citrate, CPD, CPDA-1, and ACD. SST and PPT are also acceptable.
Minimum Volume Required	1 mL
Storage & Preservation of Specimen Prior to Shipping	Specimens may be stored at 2-8°C for 7 days. Long-term storage should be at -20°C or colder and specimens should not have incurred more than 5 freeze-thaw cycles.
Transport Medium	Not Applicable
Specimen Labeling	Specimens and accompanying submission forms require 2 unique identifiers. Identifiers that protect the identity of the individual are preferred
Shipping Instructions which Include Specimen Handling Requirements	Ship specimen Monday -Thursday overnight to avoid weekend deliveries Frozen specimen should be shipped on dry ice Refrigerated specimen should be shipped on cold packs
Methodology	Enzyme-linked Immunosorbent Assay (ELISA), Western Blot, Rapid Test
Turnaround Time	21 Days
Interferences & Limitations	None
Additional Information	None
CDC Points of Contact	Tim Granade (404) 639-3850 txg1@cdc.gov Michele Owen (404) 639-1046 smo2@cdc.gov

Test Order

HIV Serology Study (International Only)

CDC-10333

Synonym(s)	None
Pre-Approval Needed	**Parekh, Bharat, (404) 639-3647, bsp1@cdc.gov** **Kalou, Mireille, (404) 639-2794, chn7@cdc.gov**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	To be determined
Minimum Volume Required	To be determined
Storage & Preservation of Specimen Prior to Shipping	To be determined
Transport Medium	To be determined
Specimen Labeling	All primary specimen containers must include 2 unique identifiers at the time of collection. The identifiers must be clearly labeled on each specimen and correspond to information on the requisition form. Surveillance studies and some protocols require 1 unique identifier (the ILB recommends 2 identifiers) de-linked from the patient. Do not include the patient's name or any other personally identifiable information. Results are not reported back to patient.
Shipping Instructions which Include Specimen Handling Requirements	To be determined
Methodology	
Turnaround Time	
Interferences & Limitations	To be determined
Additional Information	To be determined
CDC Points of Contact	Bharat Parekh (404) 639-3647 bsp1@cdc.gov Mireille Kalou (404) 639-2794 chn7@cdc.gov

Test Order

HIV Special Study

CDC-10278

Synonym(s)	None
Pre-Approval Needed	**Owen, Michele, (404) 639-1046, smo2@cdc.gov** **Granade, Tim, (404) 639-3850, txg1@cdc.gov**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	To be determined
Minimum Volume Required	To be determined
Storage & Preservation of Specimen Prior to Shipping	To be determined
Transport Medium	To be determined
Specimen Labeling	To be determined
Shipping Instructions which Include Specimen Handling Requirements	To be determined
Methodology	
Turnaround Time	
Interferences & Limitations	To be determined
Additional Information	To be determined
CDC Points of Contact	Michele Owen (404) 639-1046 smo2@cdc.gov Tim Granade (404) 639-3850 txg1@cdc.gov

Test Order

HIV-1 Drug Resistance Special Study (International Only)

CDC-10334

Synonym(s)	None
Pre-Approval Needed	**Yang, Chunfu, (404) 639-4975, cxy0@cdc.gov** **DeVos, Joshua, (404) 639-5442, ext8@cdc.gov**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	To be determined
Minimum Volume Required	To be determined
Storage & Preservation of Specimen Prior to Shipping	To be determined
Transport Medium	To be determined
Specimen Labeling	All primary specimen containers must include 2 unique identifiers at the time of collection. The identifiers must be clearly labeled on each specimen and correspond to information on the requisition form. Surveillance studies and some protocols require 1 unique identifier (the ILB recommends 2 identifiers) de-linked from the patient. Do not include the patient's name or any other personally identifiable information. Results are not reported back to patient.
Shipping Instructions which Include Specimen Handling Requirements	To be determined
Methodology	
Turnaround Time	
Interferences & Limitations	To be determined
Additional Information	To be determined
CDC Points of Contact	Chunfu Yang (Primary POC) (404) 639-4975 cxy0@cdc.gov Joshua DeVos (Secondary POC) (404) 639-5442 ext8@cdc.gov

Test Order

HIV-1 Genotype Drug Resistance (International Only)

CDC-10335

Synonym(s)	HIV DR, HIV, HIV Sequencing, HIV Susceptibility
Pre-Approval Needed	**Yang, Chunfu, (404) 639-4975, cxy0@cdc.gov** **DeVos, Joshua, (404) 639-5442, ext8@cdc.gov**
Supplemental Information Required	**Specimens must be accompanied with complete requisition form(s).** **Plasma or Serum:** **CDC Form 0.753: Application for Permit to Import or Transport Etiological Agents, Hosts, or Vectors of Human Disease and Requisition Form** **Dried Blood Spots:** **Requisition Form**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Plasma, serum, and dried blood spots (DBS). Dried blood spots should be least 4 saturated 13mm circles (preferably 5) containing 100 µL of whole blood.
Minimum Volume Required	1 mL (Plasma or Serum)
Storage & Preservation of Specimen Prior to Shipping	For plasma or serum keep frozen at -65°C to -80°C for 6 months. Use the appropriate anticoagulant (EDTA). Dried blood spots should be kept at an ambient temperature (15°-35°C) for testing performed within 14 days and frozen at -70°C or colder if testing is not performed within 14 days.
Transport Medium	Plasma or serum should be transported in a 1.5 - 2.0 mL polypropylene tube with screw cap and O-ring. Transport specimens in frozen conditions using dry ice or liquid nitrogen. Dried blood spots should each be wrapped with a folded sheet of glassine paper. Stack 5-10 glassine paper-wrapped cards into a gas-impermeable, sealable, plastic bag containing 5-10 desiccant packs to remove residual moisture along with one humidity indicator card. Ensure the specimen identification is clearly written on both the DBS card and on the plastic bag. Ensure the humidity indicator can be read without opening the bag. Gently apply pressure to the partially sealed bag to expel the air before sealing it completely. Place 5-10 of the above small bags into a large plastic bag.
Specimen Labeling	All primary specimen containers must include 2 unique identifiers at the time of collection. The identifiers must be clearly labeled on each specimen and correspond to information on the requisition form. Surveillance studies and some protocols require 1 unique identifier (the ILB recommends 2 identifiers) de-linked from the patient. Do not include the patient's name or any other personally identifiable information. Results are not reported back to patient.
Shipping Instructions which Include Specimen Handling Requirements	For shipments that are in transit for up to 14 days, maintain at ambient temperature (20°-30°C) and for greater than 14 days, maintain temperature at -20°C or colder with dry ice.
Methodology	Identification of mutations within HIV-1 pol gene region, Sequencing
Turnaround Time	24 Weeks
Interferences & Limitations	Do not use heparin as an anticoagulant. Plasma and serum should not be used

	after more than 2 freeze-thaw cycles. Plasma or serum will be rejected if improperly labeled or unlabeled, or with discrepant documentation, insufficient volume, without documentation, unacceptable preservatives, and specimen that have leaked in transit or otherwise shown evidence of contamination. Dried blood spots will be rejected if improperly labeled or unlabeled, without documentation or with discrepant documentation, without humidity indicators and desiccants, demonstrating any indication of humidity in the zip lock bags, insufficient volume for testing, improperly collected, containing blood clots or clumps, with a halo around the blood spot indicating contamination, if specimen are congruent or show evidence of commingling and collected onto inappropriate filter paper.
Additional Information	The In-house assay may not detect minor viral species that constitute less than 20% of the circulating virus population. Consultation with an expert in HIV drug resistance is encouraged to facilitate interpretation of genotype test results, and to evaluate which mutations and/or combinations of mutations are associated with drug resistance.
CDC Points of Contact	Chunfu Yang (Primary POC) (404) 639-4975 cxy0@cdc.gov Joshua DeVos (Secondary POC) (404) 639-5442 ext8@cdc.gov

Test Order

HIV-1 Nucleic Acid Amplification (Qualitative)

CDC-10275

Synonym(s)	HIV NAAT
Pre-Approval Needed	**None**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Serum, plasma or whole blood. Specimens may be collected EDTA, ACD sodium citrate, PPT, or serum tubes. Follow sample tube manufacturer's instructions
Minimum Volume Required	1 mL
Storage & Preservation of Specimen Prior to Shipping	Specimen stability is affected by elevated temperature. Whole blood, plasma or serum may be stored for up to 72 hours from time of draw at <= 25°C; temperatures not to exceed 30°C are acceptable for no more than 24 hours. Specimens may be stored an additional five days at 2 to 8°C following centrifugation. Plasma separated from the cells may be stored for longer periods of time at <= 20°C before testing. Do not freeze whole blood. Long-term storage of serum has not been evaluated.
Transport Medium	Not Applicable
Specimen Labeling	Specimens and accompanying submission forms require 2 unique identifiers. Identifiers that protect the identity of the individual are preferred
Shipping Instructions which Include Specimen Handling Requirements	Ship specimen Monday -Thursday overnight to avoid weekend deliveries. Keep specimen at room temperature. If frozen, specimen should be shipped on dry ice.
Methodology	Nucleic acid amplification
Turnaround Time	21 Days
Interferences & Limitations	Collections in heparin coated tubes are unacceptable due to heparin interference with nucleic acid amplification
Additional Information	For RNA testing, separate the plasma by centrifugation and freeze (-70°C is optimal, -20°C acceptable) as soon as possible after separation (min volume of 1mL of plasma is required, 5 mLs is optimal). For DNA amplification, (required for HIV-2), freeze the cell pellet after plasma separation (-70°C is optimal, -20°C acceptable). Indicate the original volume of blood used to generate the pellet on the shipping form. If blood separation is not possible, tubes may be shipped overnight at ambient temperature.
CDC Points of Contact	Michele Owen (404) 639-1046 smo2@cdc.gov Tim Granade (404) 639-3850 txg1@cdc.gov

Test Order

HIV-1 Nucleic Acid Amplification (Viral Load)

CDC-10276

Synonym(s)	HIV RNA-PCR, HIV RT-PCR, HIV Roche Viral load, HIV Cobas, HIV Abbot Viral load, HIV NAAT
Pre-Approval Needed	**Granade, Tim, (404) 639-3850, txg1@cdc.gov** **Owen, Michele, (404) 639-1046, smo2@cdc.gov**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Plasma collected in EDTA anticoagulant. Follow manufacturer's instructions for proper collection.
Minimum Volume Required	1 mL
Storage & Preservation of Specimen Prior to Shipping	Fresh whole blood may be held at 15-30°C for up to 6 hours or at 2-8°C for up to 24 hours. After centrifugation, plasma may be stored at 15-30°C for up to 24 hours and at 2-8°C for up to 5 days. Plasma may be frozen at -20°C for up to 6 weeks (42 days); longer storage should be at -70°C or colder. Freeze-thaw cycles should be avoided and should not exceed 3 cycles
Transport Medium	Not Applicable
Specimen Labeling	Specimens and accompanying submission forms require 2 unique identifiers. Identifiers that protect the identity of the individual are preferred
Shipping Instructions which Include Specimen Handling Requirements	Ship specimen Monday -Thursday overnight to avoid weekend deliveries. Keep specimen at room temperature. If frozen, specimen should be shipped on dry ice.
Methodology	Real time polymerase chain reaction (RT-PCR)
Turnaround Time	21 Days
Interferences & Limitations	Collections in heparin coated tubes are unacceptable due to heparin interference with PCR amplification.
Additional Information	For RNA testing, separate the plasma by centrifugation and freeze (-70°C is optimal, -20°C acceptable) as soon as possible after separation (min volume of 1mL of plasma is required, 5 mL is optimal).
CDC Points of Contact	Tim Granade (404) 639-3850 txg1@cdc.gov Michele Owen (404) 639-1046 smo2@cdc.gov

Test Order

HIV-1 PCR (International Only) Qualitative

CDC-10336

Synonym(s)	HIV, EID, PMTCT, Early infant diagnostic, DNA
Pre-Approval Needed	**Hurlston, MacKenzie, (404) 639-1281, wpd9@cdc.gov** **Diallo, Karidia, (404) 639-3568, edu9@cdc.gov**
Supplemental Information Required	**Specimens must be accompanied with complete requisition form(s)**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Dried Blood Spots (DBS). At least 4 saturated 13mm circles (preferably 5) containing 50-100 µL of whole blood including capillary blood obtained by finger/toe/heel stick which is dropped directly onto the DBS card.
Minimum Volume Required	Not Applicable
Storage & Preservation of Specimen Prior to Shipping	The appropriate anticoagulant for DBS whole blood collection is EDTA. Dried blood spots should be kept at an ambient temperature (15°-35°C) for testing performed within 14 days and frozen at -70°C if testing is not performed within 14 days.
Transport Medium	Transport specimen in a gas impermeable plastic bag with desiccant and humidity indicator card. Each DBS card needs to be packaged separately.
Specimen Labeling	All primary specimen containers must include 2 unique identifiers at the time of collection. The identifiers must be clearly labeled on each specimen and correspond to information on the requisition form. Surveillance studies and some protocols require 1 unique identifier (the ILB recommends 2 identifiers) de-linked from the patient. Do not include the patient's name or any other personally identifiable information. Results are not reported back to patient.
Shipping Instructions which Include Specimen Handling Requirements	For shipments that are in transit for up to 14 days, maintain at ambient temperature (15°-35°C) and shipments that are in transit for greater than 14 days, maintain temperature at -20°C or colder with dry ice.
Methodology	Qualitative PCR
Turnaround Time	28 Days
Interferences & Limitations	Do not use heparin as an anticoagulant. Specimen will be rejected if improperly labeled or unlabeled, without documentation or with discrepant documentation, without humidity indicators and desiccants, demonstrating any indication of humidity in the zip lock bags, insufficient volume for testing, improperly collected, containing blood clots or clumps, with a halo around the blood spot indicating contamination, if specimen are congruent or show evidence of commingling and collected onto inappropriate filter paper.
Additional Information	A test result of "HIV-1 Not Detected" or "Target not detected", does not rule out necessarily HIV-1 DNA for the Amplicor test or HIV-1 RNA and DNA for the COBAS AmpliPrep platform. Either nucleic acid (HIV-1 DNA/RNA) concentrations below the limit of detection of the assays, the presence of PCR inhibitors in the patient specimen or improper specimen handling can lead to false negative results. PCR may not detect infection in the first weeks of infant's life (< 6 weeks) or within 6 weeks of weaning. HIV-1 may not be detected immediately after exposure. The diagnosis of HIV-1 infection is based on clinical presentation and results from additional diagnostic tests such as DNA PCR. Diagnosis should

	not be based solely on a single HIV-1 test. False positive test results may be caused by PCR contamination. NOTE: If a specific testing platform is required, requests must be submitted and reviewed by the team lead.
CDC Points of Contact	MacKenzie Hurlston (Primary POC) (404) 639-1281 wpd9@cdc.gov Karidia Diallo (Secondary POC) (404) 639-3568 edu9@cdc.gov

Test Order

HIV-1 PCR (International Only) Quantitative Viral Load

CDC-10337

Synonym(s)	HIV, VL, RNA
Pre-Approval Needed	**Hurlston, MacKenzie, (404) 639-1281, wpd9@cdc.gov** **Diallo, Karidia, (404) 639-3568, edu9@cdc.gov**
Supplemental Information Required	**Specimens must be accompanied with complete requisition form(s).** **CDC Form 0.753: Application for Permit to Import or Transport Etiological Agents, Hosts, or Vectors of Human Disease and Requisition Form**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Plasma
Minimum Volume Required	0.2 mL
Storage & Preservation of Specimen Prior to Shipping	The appropriate anticoagulant for whole blood collection is EDTA. Specimen should be kept at ambient temperature (20°-35°C) within 14 days after collection, but frozen at -70°C if testing is to be performed after 14 days.
Transport Medium	Transport specimen in a sterile 1.5-2.0 mL polypropylene tube, screw cap with O-ring
Specimen Labeling	All primary specimen containers must include 2 unique identifiers at the time of collection. The identifiers must be clearly labeled on each specimen and correspond to information on the requisition form. Surveillance studies and some protocols require 1 unique identifier (the ILB recommends 2 identifiers) de-linked from the patient. Do not include the patient's name or any other personally identifiable information. Results are not reported back to patient.
Shipping Instructions which Include Specimen Handling Requirements	For shipments that are in transit for up to 5 days, maintain at (2-8°C) and shipments in transit for greater than 5 days, maintain temperature at -20°C or colder with dry ice.
Methodology	Quantitative PCR
Turnaround Time	28 Days
Interferences & Limitations	Do not use heparin as an anticoagulant. Do not use specimens after more than 5 freeze-thaw cycles for the Roche assays and 3 freeze-thaw cycles for the Abbott m2000 assay. Specimen will be rejected if improperly labeled or unlabeled, or with discrepant documentation, insufficient volume, without documentation, unacceptable preservatives, and specimen that have leaked in transit or otherwise shown evidence of contamination.
Additional Information	An interpretation of "Target Not Detected", "HIV-1 RNA Not Detected ", and "Not Detected" does not rule out the presence of PCR inhibitors or HIV-1 RNA concentrations below the level of detection of the assay. Care should be taken in the interpretation of any single viral load determination. The clinical significance of changes in HIV-1 RNA measurements has not been fully established; however, a change of 0.5 log copies/mL may be significant. The linear range of each assay is as follows: COBAS® AmpliPrep/COBAS® Taqman® v2.0 is 20-10,000,000 copies/mL(1.30log-7.00log)

	Amplicor® HIV-1 Monitor v1.5 is 400-750,000 copies/mL(2.60log-5.88log) Abbott Real Time HIV-1 assay is 40-10,000,000 copies/mL(1.60-7.00log) The COBAS®AmpliPrep/COBAS® Taqman® HIV-1 v2.0 test exhibits a higher level of sensitivity when compared to the Amplicor® HIV-1 Monitor v1.5 test and the Abbott Real Time HIV-1 test for the m2000 system. NOTE: If a specific testing platform is required, requests must be submitted and reviewed by the Team Lead.
CDC Points of Contact	MacKenzie Hurlston (Primary POC) (404) 639-1281 wpd9@cdc.gov Karidia Diallo (Secondary POC) (404) 639-3568 edu9@cdc.gov

Test Order

HIV-1/2 Antibody (International Only) EIA and Western Blot

CDC-10338

Synonym(s)	HIV, EIA, WB, ELISA
Pre-Approval Needed	**Parekh, Bharat, (404) 639-3647, bsp1@cdc.gov** **Kalou, Mireille, (404) 639-2794, chn7@cdc.gov**
Supplemental Information Required	**Specimens must be accompanied with complete requisition form(s).** **Plasma or serum:** **CDC Form 0.753: Application for Permit to Import or Transport Etiological Agents, Hosts, or Vectors of Human Disease and Requisition Form** **Dried Blood Spots:** **Requisition Form**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Plasma, serum and dried blood spots. Dried Blood Spots should be at least 4 saturated 13mm filter paper circles (preferably 5) containing 75 µL of whole blood.
Minimum Volume Required	0.5 mL (plasma and serum)
Storage & Preservation of Specimen Prior to Shipping	Keep plasma and serum refrigerated at 2°-8°C if testing is performed within 7 days. If testing is performed after 7 days of collection, the specimen should be kept frozen at -20°C or colder. Dried blood spots should be stored at an ambient temperature (20°-30°C) if testing is performed within 14 days. Specimen should be frozen at -20°C or colder if testing is not performed within 14 days. Plasma: The appropriate anticoagulants for whole blood collection are either EDTA, Sodium heparin or Lithium heparin. Dried Blood Spots: For DBS prepared from whole blood collected into tubes, the appropriate anticoagulant for DBS whole blood collection is EDTA. Finger pricks without anti-coagulant dropped directly onto filter paper is also acceptable.
Transport Medium	Transport plasma and/or serum in plastic screw-cap vial with O-ring. Dried blood spots should be in gas impermeable plastic bag with desiccant and humidity indicator card and packaged separately.
Specimen Labeling	All primary specimen containers must include 2 unique identifiers at the time of collection. The identifiers must be clearly labeled on each specimen and correspond to information on the requisition form. Surveillance studies and some protocols require 1 unique identifier (the ILB recommends 2 identifiers) de-linked from the patient. Do not include the patient's name or any other personally identifiable information. Results are not reported back to patient.
Shipping Instructions which Include Specimen Handling Requirements	For shipments that are in transit for up to 7 days, maintain temperature at 2-8°C. For shipments that are in transit for greater than 7 days, maintain temperature at -20°C or colder with dry ice. For shipments that are in transit for up to 14 days, maintain at ambient

	temperature (20-30°C). For shipments that are in transit for greater than 14 days, maintain temperature at -20°C or colder with dry ice.
Methodology	Enzyme Immunoassay, Enzyme-linked Immunosorbent Blot Technique (Western Blot)
Turnaround Time	90 Days
Interferences & Limitations	Do not use plasma and serum after more than 5 freeze-thaw cycles. Plasma or serum will be rejected if improperly labeled or unlabeled, without documentation or with discrepant documentation, insufficient volume, unacceptable preservatives, and specimen that have leaked in transit or otherwise shown evidence of contamination. Dried blood spots will be rejected if improperly labeled or unlabeled, without documentation or with discrepant documentation, without humidity indicators and desiccants, demonstrating any indication of humidity in the zip lock bags, insufficient volume for testing, improperly collected, containing blood clots or clumps, with a halo around the blood spot indicating contamination, if specimen are congruent or show evidence of commingling and collected onto inappropriate filter paper.
Additional Information	Positive results are confirmed by the highly specific method (i.e. Western Blot). Western Blot with an EIA-positivity has combined specificity of greater than 99.9%. Testing for EIA and Western Blot is perfumed in batches and the turnaround times are the following: Batch with less than 200 specimens - within 50 days Batch with 200-600 - within 70 days Batch with greater than 600 specimens - within 90 days
CDC Points of Contact	Bharat Parekh (404) 639-3647 bsp1@cdc.gov Mireille Kalou (404) 639-2794 chn7@cdc.gov

Test Order

HIV-1/2 Antibody (International Only) Rapid Test

CDC-10339

Synonym(s)	HIV, RT
Pre-Approval Needed	**Parekh, Bharat, (404) 639-3647, bsp1@cdc.gov** **Kalou, Mireille, (404) 639-2794, chn7@cdc.gov**
Supplemental Information Required	**Specimens must be accompanied with complete requisition form(s).** **CDC Form 0.753: Application for Permit to Import or Transport Etiological Agents, Hosts, or Vectors of Human Disease and Requisition Form**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Plasma and serum
Minimum Volume Required	0.5 mL
Storage & Preservation of Specimen Prior to Shipping	The appropriate anticoagulants for whole blood collection are EDTA or Sodium heparin. Keep specimen at ambient temperature at 15°-35°C if testing will be performed within 48 hours of collection. If testing is to be performed within 7 days keep specimen refrigerated at 2°-8°C. If testing is to be performed after 7 days, keep specimen frozen at -20°C or colder.
Transport Medium	Specimen should be transported in a plastic screw-cap vial
Specimen Labeling	All primary specimen containers must include 2 unique identifiers at the time of collection. The identifiers must be clearly labeled on each specimen and correspond to information on the requisition form. Surveillance studies and some protocols require 1 unique identifier (the ILB recommends 2 identifiers) de-linked from the patient. Do not include the patient's name or any other personally identifiable information. Results are not reported back to patient.
Shipping Instructions which Include Specimen Handling Requirements	For shipments that are in transit for up to 7 days, maintain temperature at 2-8°C and for shipments that are in transit for greater than 7 days, maintain temperature at -20°C or colder with dry ice.
Methodology	Immuno-concentration
Turnaround Time	90 Days
Interferences & Limitations	Do not use specimens after more than 5 freeze-thaw cycles. Specimen will be rejected if improperly labeled or unlabeled, without documentation or with discrepant documentation, insufficient volume, unacceptable preservatives, and specimen that have leaked in transit or otherwise shown evidence of contamination.
Additional Information	Turn around times are dependent on batch specimen: Batch with less than 200 specimens - within 50 days Batch with 200-600 - within 70 days Batch with greater than 600 specimens - within 90 days
CDC Points of Contact	Bharat Parekh (404) 639-3647 bsp1@cdc.gov Mireille Kalou

(404) 639-2794
chn7@cdc.gov

Test Order

HIV-1/2 Laboratory Algorithm

CDC-10272

Synonym(s)	HIV ELISA, HIV antibody
Pre-Approval Needed	**None**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Serum and/or plasma. The following anticoagulants are acceptable: EDTA, sodium citrate, CPD, CPDA-1, and ACD. SST and PPT are also acceptable.
Minimum Volume Required	1 mL
Storage & Preservation of Specimen Prior to Shipping	Specimens may be stored at 2-8°C for 7 days. Long-term storage should be at -20°C or colder and specimens should not have incurred more than 5 freeze-thaw cycles.
Transport Medium	Not Applicable
Specimen Labeling	Specimens and accompanying submission forms require 2 unique identifiers. Identifiers that protect the identity of the individual are preferred
Shipping Instructions which Include Specimen Handling Requirements	Ship specimen Monday -Thursday overnight to avoid weekend deliveries Frozen specimen should be shipped on dry ice Refrigerated specimen should be shipped on cold packs
Methodology	HIV antigen/antibody combo ELISA or HIV antibody ELISA, HIV-1/2 differentiation assay, Rapid Test, HIV-1 Nucleic acid amplification (qualitative)
Turnaround Time	21 Days
Interferences & Limitations	None
Additional Information	None
CDC Points of Contact	Tim Granade (404) 639-3850 txg1@cdc.gov Michele Owen (404) 639-1046 smo2@cdc.gov

Test Order

HIV-2 Nucleic Acid Amplification (Qualitative)

CDC-10429

Synonym(s)	HIV NAAT
Pre-Approval Needed	**None**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Serum and plasma
Minimum Volume Required	1 mL
Storage & Preservation of Specimen Prior to Shipping	Specimen should be properly stored in ethylenediaminetetraacetic acid (EDTA) or Acid Citrate Dextrose (ACD) tubes. Serum and plasma can be stored at room temperature. For plasma only collections, Plasma Preparation Tubes (PPT) are suitable.
Transport Medium	Not Applicable
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Ship specimen Monday -Thursday overnight to avoid weekend deliveries. Keep specimen at room temperature. If frozen, specimen should be shipped on dry ice.
Methodology	Polymerase Chain Reaction (PCR)
Turnaround Time	21 Days
Interferences & Limitations	Collections in heparin coated tubes are unacceptable due to heparin interference with PCR amplification.
Additional Information	For RNA testing, separate the plasma by centrifugation and freeze (-70°C is optimal, -20°C acceptable) as soon as possible after separation (min volume of 1mL of plasma is required, 5 mL is optimal). For DNA amplification, (required for HIV-2), freeze the cell pellet after plasma separation (-70°C is optimal, -20°C acceptable). Indicate the original volume of blood used to generate the pellet on the shipping form. If blood separation is not possible, tubes may be shipped overnight at ambient temperature.
CDC Points of Contact	Michele Owen (404) 639-1046 smo2@cdc.gov Tim Granade (404) 639-3850 txg1@cdc.gov

Test Order

HIV-2 Serology

CDC-10273

Synonym(s)	HIV ELISA, HIV antibody
Pre-Approval Needed	**None**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Serum and/or plasma. The following anticoagulants are acceptable: EDTA, sodium citrate, CPD, CPDA-1, and ACD. SST and PPT are also acceptable.
Minimum Volume Required	0.5 mL
Storage & Preservation of Specimen Prior to Shipping	Keep specimen either refrigerated or frozen. Plasma should be properly stored in ethylenediaminetetraacetic acid (EDTA) or Acid Citrate Dextrose (ACD) tubes.
Transport Medium	Not Applicable
Specimen Labeling	Specimens and accompanying submission forms require 2 unique identifiers. Identifiers that protect the identity of the individual are preferred
Shipping Instructions which Include Specimen Handling Requirements	Ship specimen Monday -Thursday overnight to avoid weekend deliveries Frozen specimen should be shipped on dry ice Refrigerated specimen should be shipped on cold packs
Methodology	HIV-1/2 Differentiation Assay, HIV-2 Western Blot
Turnaround Time	21 Days
Interferences & Limitations	None
Additional Information	None
CDC Points of Contact	Tim Granade (404) 639-3850 txg1@cdc.gov Michele Owen (404) 639-1046 smo2@cdc.gov

Test Order

HPV Special Study

CDC-10131

Synonym(s)	None	
Pre-Approval Needed	**Unger, Elizabeth, (404) 639-3533, eru0@cdc.gov** **Panicker, Gitika, (404) 639-2269, dhv1@cdc.gov**	
Supplemental Information Required	**None**	
Supplemental Form	**None**	
Performed on Specimens From	Human	
Acceptable Sample/ Specimen Type for Testing	To be determined	
Minimum Volume Required	To be determined	
Storage & Preservation of Specimen Prior to Shipping	To be determined	
Transport Medium	To be determined	
Specimen Labeling	To be determined	
Shipping Instructions which Include Specimen Handling Requirements	To be determined	
Methodology	Polymerase Chain Reaction (PCR), Serology	
Turnaround Time		
Interferences & Limitations	To be determined	
Additional Information		
CDC Points of Contact	Elizabeth Unger (404) 639-3533 eru0@cdc.gov Gitika Panicker (404) 639-2269 dhv1@cdc.gov	Martin Steinau (404) 639-0561 azz9@cdc.gov

Test Order

Human Herpes Virus 6 (HHV6) Detection and Subtyping

CDC-10266

Synonym(s)	HHV6
Pre-Approval Needed	**None**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Saliva, cerebrospinal fluid (CSF) or blood
Minimum Volume Required	200 uL
Storage & Preservation of Specimen Prior to Shipping	Keep specimen either refrigerated or frozen. Blood should be collected in EDTA or citrate tubes.
Transport Medium	None
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Ship overnight Monday-Thursday, with cold packs or dry ice as an etiologic agent.
Methodology	Polymerase Chain Reaction (PCR)
Turnaround Time	2 Days
Interferences & Limitations	None
Additional Information	None
CDC Points of Contact	Scott Schmid (404) 639-0066 dss1@cdc.gov Kay Radford (404) 639-2192 kjr7@cdc.gov

Test Order

Human Herpes Virus 6 (HHV6) Serology

CDC-10497

Synonym(s)	None
Pre-Approval Needed	**Schmid, Scott, (404) 639-0066, SSchmid@cdc.gov** **Folster, Jennifer, (404) 639-3668, JFolster@cdc.gov**
Supplemental Information Required	**See Supplemental Form**
Supplemental Form	http://www.cdc.gov/shingles/downloads/specimen_collection_form.pdf
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Serum or plasma
Minimum Volume Required	200 uL
Storage & Preservation of Specimen Prior to Shipping	Fresh serum or plasma samples may be stored at 4 degrees C for up to one week. Serum or plasma separated from red blood cells should be stored frozen (-20 degrees C) until ready for testing.
Transport Medium	No transport medium.
Specimen Labeling	Clearly identify the sample and an associated patient ID number.
Shipping Instructions which Include Specimen Handling Requirements	If stored at 4 degrees C can be overnighted on cold packs in well-sealed O-ring vials; if frozen can be overnighted on dry ice in well-sealed O-ring vials.
Methodology	ELISA
Turnaround Time	7 Days
Interferences & Limitations	False positive results may be obtained if samples are excessively lipemic or contaminated by bacteria. False negative results may be obtained if samples are not properly stored after collection.
Additional Information	HHV-6 antibody detection method (HHV-6 ELISA) used to detect HHV-6 IgG specific antibodies in human serum or plasma. This protocol is not operated currently under the CLIA certificate, as it is still in the process of being evaluated and validated; it is for research purposes only.
CDC Points of Contact	Scott Schmid (404) 639-0066 SSchmid@cdc.gov Jennifer Folster (404) 639-3668 JFolster@cdc.gov

Test Order

Human Herpes Virus 7 (HHV7) Detection

CDC-10267

Synonym(s)	HHV7
Pre-Approval Needed	**None**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Saliva, cerebrospinal fluid (CSF) or blood
Minimum Volume Required	200 uL
Storage & Preservation of Specimen Prior to Shipping	Keep specimen either refrigerated or frozen. Blood should be collected in EDTA or citrate tubes.
Transport Medium	Not applicable
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Ship overnight Monday-Thursday, with cold packs or dry ice as an etiologic agent.
Methodology	Polymerase Chain Reaction (PCR)
Turnaround Time	2 Days
Interferences & Limitations	None
Additional Information	None
CDC Points of Contact	Scott Schmid (404) 639-0066 dss1@cdc.gov Kay Radford (404) 639-2192 kjr7@cdc.gov

Test Order

Human Herpes Virus 8 (HHV8) Detection

CDC-10268

Synonym(s)	Kaposi's sarcoma-associated herpesvirus, KSHV, HHV8
Pre-Approval Needed	**Dollard, Sheila, (404) 639-2178, sgd5@cdc.gov** **Schmid, Scott, (404) 639-0066, dss1@cdc.gov**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Blood or saliva
Minimum Volume Required	200 uL
Storage & Preservation of Specimen Prior to Shipping	Keep specimen either refrigerated or frozen. Blood should be collected in EDTA or citrate tubes.
Transport Medium	Not Applicable
Specimen Labeling	Provide a specimen ID. Do not send specimen labeled with patient's name.
Shipping Instructions which Include Specimen Handling Requirements	Ship overnight Monday-Thursday, with cold packs or dry ice as an etiologic agent.
Methodology	Polymerase Chain Reaction (PCR)
Turnaround Time	1 Week
Interferences & Limitations	None
Additional Information	None
CDC Points of Contact	Sheila Dollard (404) 639-2178 sgd5@cdc.gov Scott Schmid (404) 639-0066 dss1@cdc.gov

Test Order

Human Herpes Virus 8 (HHV8) Serology

CDC-10269

Synonym(s)	Kaposi's sarcoma-associated herpesvirus, KSHV, HHV8
Pre-Approval Needed	**Dollard, Sheila, (404) 639-2178, sgd5@cdc.gov** **Schmid, Scott, (404) 639-0066, dss1@cdc.gov**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Serum or plasma
Minimum Volume Required	200 uL
Storage & Preservation of Specimen Prior to Shipping	Keep specimen either refrigerated or frozen.
Transport Medium	Not Applicable
Specimen Labeling	Provide a specimen ID. Do not send specimen labeled with patient's name.
Shipping Instructions which Include Specimen Handling Requirements	Ship overnight Monday-Thursday, with cold packs or dry ice as an etiologic agent.
Methodology	IgG antibody detected by IFA
Turnaround Time	7 Days
Interferences & Limitations	None
Additional Information	None
CDC Points of Contact	Sheila Dollard (404) 639-2178 sgd5@cdc.gov Scott Schmid (404) 639-0066 dss1@cdc.gov

Test Order

Influenza Antiviral Resistance Diagnosis

CDC-10423

Synonym(s)	Flu, Influenza Drug resistance, Neuraminidase inhibitor, Influenza Resistance testing
Pre-Approval Needed	**None**
Supplemental Information Required	**Requires additional WHO submission form that can be obtained with your password**
Supplemental Form	http://www.nltn.org/Influenza-Speicmen-Submission-Form.xls
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Must type/subtype prior to submission. Virus isolates, RNA, respiratory clinical specimens (nasopharyngeal swabs, nasal swabs, throat swabs, nasal aspirates, nasal washes, lower respiratory tract specimens), and others upon consultation with the laboratory.
Minimum Volume Required	0.5 mL
Storage & Preservation of Specimen Prior to Shipping	Swab specimens should be collected using only swabs with a synthetic tip, such as nylon or Dacron®, and an aluminum or plastic shaft. Ensure that, when transporting human respiratory specimens, all applicable regulations for the transport of etiologic agents are met. Specimens received cold should be stored refrigerated (2-8°C) for up to 72 hours before processing. Store any residual specimens at ≤ -70°C. Although optimal performance is met when testing fresh specimens within 72 hours of collection, performance has been demonstrated with frozen specimens. If testing of a fresh specimen is not possible within 72 hours storage at 2°-8°C, the specimen may be frozen at ≤ -70°C and tested at a later time. Specimens received frozen should be stored at ≤ -70°C until processing. Store any residual specimens at ≤ -70°C.
Transport Medium	Swabs must be in viral transport medium
Specimen Labeling	Specimen ID must match the ID on the form
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday-Thursday overnight to avoid weekend deliveries. Prior to shipping, notify CDC Influenza Division that you are sending specimens. Refer to the International Air Transport Association (IATA - www.iata.org) for requirements for shipment of human or potentially infectious biological specimens. Ship extracted RNA and frozen specimen on dry ice. Refrigerated specimens should be shipped on cold packs.
Methodology	Pyrosequencing
Turnaround Time	3 Days
Interferences & Limitations	Low viral load (Ct values above 29 are not recommended for submission) or genetic variance can affect test results. Calcium alginate swabs are unacceptable and cotton swabs with wooden shafts are not recommended because it can cause a false-negative result.
Additional Information	Turn around time may be greater than 3 days during holidays. Testing is not performed on the weekends or on federal holidays.
CDC Points of Contact	Larisa Gubareva (404) 639-3204 LGubareva@cdc.gov Michelle Adamczyk (404) 639-2276 MAdamczyk@cdc.gov David Wentworth (404) 639-3387 DWentworth@cdc.gov

Test Order

Influenza Molecular Diagnosis

CDC-10421

Synonym(s)	Influenza Real Time PCR, Influenza Diagnostics, Flu
Pre-Approval Needed	**None**
Supplemental Information Required	**Requires additional WHO submission form that can be obtained with your password**
Supplemental Form	**http://www.nltn.org/Influenza-Speicmen-submission-Form.xls**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Virus isolates, RNA, respiratory clinical specimens (i.e. Nasopharyngeal swabs, nasal swabs, throat swabs, nasal aspirates, nasal washes, lower respiratory tract specimens), and others upon consultation with the laboratory.
Minimum Volume Required	1 mL
Storage & Preservation of Specimen Prior to Shipping	Swab specimens should be collected using only swabs with a synthetic tip, such as nylon or Dacron®, and an aluminum or plastic shaft. Ensure that, when transporting human respiratory specimens, all applicable regulations for the transport of etiologic agents are met. Specimens received cold should be stored refrigerated (2°-8°C) for up to 72 hours before processing. Store any residual specimens at ≤ -70°C. Although optimal performance is met when testing fresh specimens within 72 hours of collection, performance has been demonstrated with frozen specimens. If testing of a fresh specimen is not possible within 72 hours storage at 2-8°C, the specimen may be frozen at ≤ -70° C and tested at a later time. Specimens received frozen should be stored at ≤ -70°C until processing. Store any residual specimens at ≤ -70°C.
Transport Medium	Swabs must be in viral transport medium
Specimen Labeling	Specimen ID must match the ID on the form
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday-Thursday, overnight to avoid weekend deliveries. Urgent specimen can be shipped any time with prior approval from the laboratory. Prior to shipping, notify CDC Influenza Division that you are sending specimen. Refer to the International Air Transport Association (IATA - www.iata.org) for requirements for shipment of human or potentially infectious biological specimens. Ship extracted RNA and frozen specimen on dry ice. Refrigerated specimen should be shipped on cold packs.
Methodology	Real Time PCR, Genetic Sequence Identification
Turnaround Time	7 Days
Interferences & Limitations	Low virus numbers or co-infections can affect test results. Calcium alginate swabs are unacceptable and cotton swabs with wooden shafts are not recommended because it can cause a false-negative result.
Additional Information	Specimens requiring additional testing and specimens submitted for surveillance studies will take longer than seven days for results.
CDC Points of Contact	Stephen Lindstrom (404) 639-1587 sql5@cdc.gov LaShondra Berman (404) 639-1686 zhj5@cdc.gov

Test Order

Influenza Serology

CDC-10424

Synonym(s)	Influenza Hemagglutination inhibition assay, Influenza microneutralization assay
Pre-Approval Needed	**Levine, Min, (404) 639-3504, mwl2@cdc.gov** **Katz, Jackie, (404) 639-4966, jmk9@cdc.gov**
Supplemental Information Required	**Supplemental form will be supplied upon consultation with laboratory**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Paired Serum; Acute (less than 7 days post symptoms onset) and convalescent (at least 14 days after acute serum collection)
Minimum Volume Required	.5 mL
Storage & Preservation of Specimen Prior to Shipping	Should be collected and immediately frozen. Specifics around storage and preservation are supplied on the supplemental form and upon consultation with laboratory.
Transport Medium	Not Applicable
Specimen Labeling	Please include patient identification number, patients age, date of collection and symptoms onset date. Do not include names.
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday-Thursday, overnight to avoid weekend deliveries Frozen specimen should be shipped on dry ice Obtain approval prior to shipping
Methodology	Hemagglutination inhibition assay, Microneutralization assay
Turnaround Time	6 Weeks
Interferences & Limitations	Whole blood cannot be used for testing. Lipemic or hemolyzed sera will affect test results.
Additional Information	None
CDC Points of Contact	Min Levine (404) 639-3504 mwl2@cdc.gov Jackie Katz (404) 639-4966 jmk9@cdc.gov Heather Tatum gpg7@cdc.gov

Test Order

Influenza Special Study

CDC-10425

Synonym(s)	None	
Pre-Approval Needed	**Wentworth, David, (404) 639-3387, gll9@cdc.gov Lindstrom, Stephen, (404) 639-1587, sql5@cdc.gov**	
Supplemental Information Required	**Requires additional WHO submission form that can be obtained with your password**	
Supplemental Form	http://www.nltn.org/Influenza-Speicmen-submission-Form.xls	
Performed on Specimens From	Human	
Acceptable Sample/ Specimen Type for Testing	To be determined	
Minimum Volume Required	To be determined	
Storage & Preservation of Specimen Prior to Shipping	To be determined	
Transport Medium	To be determined	
Specimen Labeling	To be determined	
Shipping Instructions which Include Specimen Handling Requirements	To be determined	
Methodology		
Turnaround Time		
Interferences & Limitations	To be determined	
Additional Information	To be determined	
CDC Points of Contact	David Wentworth (404) 639-3387 gll9@cdc.gov Stephen Lindstrom (404) 639-1587 sql5@cdc.gov	Xu Xiyan (404) 639-1657 xxx1@cdc.gov Larisa Gubareva (404) 639-3204 lqg3@cdc.gov

Test Order

Influenza Surveillance

CDC-10422

Synonym(s)	Flu, Influenza Antigen Characterization
Pre-Approval Needed	**None**
Supplemental Information Required	**Requires additional WHO submission form that can be obtained with your password**
Supplemental Form	http://www.nltn.org/Influenza-Speicmen-submission-Form.xls
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Respiratory specimens (nasopharyngeal swabs, nasal swabs, throat swabs, nasal aspirates, nasal washes, dual nasopharyngeal/throat swabs, bronchoalveolar lavage, sputum, tracheal aspirate, etc.), virus cultures, and others upon consultation with the laboratory.
Minimum Volume Required	1 mL
Storage & Preservation of Specimen Prior to Shipping	Swab specimens should be collected using only swabs with a synthetic tip, such as nylon or Dacron®, and an aluminum or plastic shaft. Ensure that, when transporting human respiratory specimens, all applicable regulations for the transport of etiologic agents are met. Specimens received cold should be stored refrigerated (2-8°C) for up to 72 hours before processing. Store any residual specimens at ≤ -70°C. Although optimal performance is met when testing fresh specimens within 72 hours of collection, performance has been demonstrated with frozen specimens. If testing of a fresh specimen is not possible within 72 hours storage at 2°-8°C, the specimen may be frozen at ≤ -70°C and tested at a later time. Specimens received frozen should be stored at ≤ -70°C until processing. Store any residual specimens at ≤ -70°C.
Transport Medium	Swabs must be in viral transport medium
Specimen Labeling	Specimen ID must match the ID on the form
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday-Thursday, overnight to avoid weekend deliveries. Urgent specimen can be shipped at any time with prior approval from the laboratory. Refer to the International Air Transport Association (IATA - www.iata.org) for requirements for shipment of human or potentially infectious biological specimens. Ship extracted RNA and frozen specimen on dry ice. Refrigerated specimen should be shipped on cold packs.
Methodology	Hemagglutination Inhibition (HI) test, Virus Culture
Turnaround Time	4 Weeks
Interferences & Limitations	Low virus numbers or co-infections can affect test results. Calcium alginate swabs are unacceptable and cotton swabs with wooden shafts are not recommended because it can cause a false-negative result.
Additional Information	Turn around time may take up to a month if the virus needs to be cultured. Turn around time for isolates may be less than 1 month.
CDC Points of Contact	Xiyan Xu (404) 639-1657 xxx1@cdc.gov Wendy Sessions (404) 639-3211 gra6@cdc.gov

Test Order

Junin Serology

CDC-10340

Synonym(s)	Argentine Hemorrhagic Fever, AHF, *arenavirus*
Pre-Approval Needed	**Klena, John, (404) 639-0114, irc4@cdc.gov** **Rollin, Pierre, (404) 639-1124, pyr3@cdc.gov**
Supplemental Information Required	**See Supplemental Form**
Supplemental Form	**http://www.cdc.gov/ncezid/dhcpp/vspb/pdf/specimen-submission.pdf**
Performed on Specimens From	Human and Animal
Acceptable Sample/ Specimen Type for Testing	Blood and serum
Minimum Volume Required	1 mL
Storage & Preservation of Specimen Prior to Shipping	Specimen must be kept cold (at or below 4°C). If possible place specimen in plastic screw capped vials. See link to supplemental submission form for specific information on various specimen types.
Transport Medium	Not Applicable
Specimen Labeling	Patient name, patient ID #, specimen type, date collected
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday-Thursday overnight to avoid weekend deliveries. Specimen should be shipped on cold packs or dry ice if frozen. See supplemental submission forms for further details. Do not ship specimen without prior consultation and approval.
Methodology	ELISA
Turnaround Time	10 Days
Interferences & Limitations	Specimen must remain frozen; warming or freeze thawing reduces sensitivity.
Additional Information	Critical specimens will take less than 4 days to turn around. See link to supplemental submission forms for detailed information.
CDC Points of Contact	John Klena (404) 639-0114 irc4@cdc.gov Pierre Rollin (404) 639-1124 pyr3@cdc.gov

Test Order

Kyasanur Forest Disease Serology

CDC-10341

Synonym(s)	KFD
Pre-Approval Needed	**Klena, John, (404) 639-0114, irc4@cdc.gov** **Rollin, Pierre, (404) 639-1124, pyr3@cdc.gov**
Supplemental Information Required	**See Supplemental Form**
Supplemental Form	http://www.cdc.gov/ncezid/dhcpp/vspb/pdf/specimen-submission.pdf
Performed on Specimens From	Human and Animal
Acceptable Sample/ Specimen Type for Testing	Blood and serum
Minimum Volume Required	1 mL
Storage & Preservation of Specimen Prior to Shipping	Specimen must be kept cold (at or below 4°C). If possible place specimen in plastic screw capped vials. See link to supplemental submission form for specific information on various specimen types.
Transport Medium	Not Applicable
Specimen Labeling	Patient name, patient ID #, specimen type, date collected
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday-Thursday overnight to avoid weekend deliveries. Specimen should be shipped on cold packs or dry ice if frozen. See supplemental submission forms for further details. Do not ship specimen without prior consultation and approval.
Methodology	ELISA
Turnaround Time	10 Days
Interferences & Limitations	Specimen must remain frozen; warming or freeze thawing reduces sensitivity
Additional Information	Critical specimens will take less than 4 days to turn around. See link to supplemental submission forms for detailed information.
CDC Points of Contact	John Klena (404) 639-0114 irc4@cdc.gov Pierre Rollin (404) 639-1124 pyr3@cdc.gov

Test Order

Laguna Negra Serology

CDC-10342

Synonym(s)	HPS, hanta
Pre-Approval Needed	**Klena, John, (404) 639-0114, irc4@cdc.gov** **Rollin, Pierre, (404) 639-1124, pyr3@cdc.gov**
Supplemental Information Required	**See Supplemental Form**
Supplemental Form	http://www.cdc.gov/ncezid/dhcpp/vspb/pdf/specimen-submission.pdf
Performed on Specimens From	Human and Animal
Acceptable Sample/ Specimen Type for Testing	Blood and serum
Minimum Volume Required	1 mL
Storage & Preservation of Specimen Prior to Shipping	Specimen must be kept cold (at or below 4°C). If possible place specimen in plastic screw capped vials. See link to supplemental submission form for specific information on various specimen types.
Transport Medium	Not Applicable
Specimen Labeling	Patient name, patient ID #, specimen type, date collected
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday-Thursday overnight to avoid weekend deliveries. Specimen should be shipped on cold packs or dry ice if frozen. See supplemental submission forms for further details. Do not ship specimen without prior consultation and approval.
Methodology	ELISA
Turnaround Time	10 Days
Interferences & Limitations	Specimen must remain frozen; warming or freeze thawing reduces sensitivity
Additional Information	Critical specimens will take less than 4 days to turn around. See link to supplemental submission forms for detailed information.
CDC Points of Contact	John Klena (404) 639-0114 irc4@cdc.gov Pierre Rollin (404) 639-1124 pyr3@cdc.gov

Test Order

Lassa Fever Identification

CDC-10343

Synonym(s)	*Arenavirus*
Pre-Approval Needed	**Klena, John, (404) 639-0114, irc4@cdc.gov** **Rollin, Pierre, (404) 639-1124, pyr3@cdc.gov**
Supplemental Information Required	**See Supplemental Form**
Supplemental Form	**http://www.cdc.gov/ncezid/dhcpp/vspb/pdf/specimen-submission.pdf**
Performed on Specimens From	Human and Animal
Acceptable Sample/ Specimen Type for Testing	Frozen tissue, blood, and serum
Minimum Volume Required	1 mL
Storage & Preservation of Specimen Prior to Shipping	Specimen must be placed in plastic screw capped vials, frozen to -70°C, and kept frozen until shipment. See link to supplemental submission form for specific information on various specimen types.
Transport Medium	Not Applicable
Specimen Labeling	Patient name, patient ID #, specimen type, date collected
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday-Thursday overnight to avoid weekend deliveries. Specimen should be shipped frozen on dry ice. See supplemental submission forms for further details. Do not ship specimen without prior consultation and approval.
Methodology	Molecular Typing, Polymerase Chain Reaction (PCR)
Turnaround Time	10 Days
Interferences & Limitations	Specimen must remain frozen; warming or freeze thawing reduces sensitivity. Heparin may cause interference with the molecular tests and should be avoided.
Additional Information	Critical specimens will take less than 4 days to turn around. See link to supplemental submission forms for detailed information.
CDC Points of Contact	John Klena (404) 639-0114 irc4@cdc.gov Pierre Rollin (404) 639-1124 pyr3@cdc.gov

Test Order

Lassa Fever Serology

CDC-10344

Synonym(s)	*Arenavirus*
Pre-Approval Needed	**Klena, John, (404) 639-0114, irc4@cdc.gov** **Rollin, Pierre, (404) 639-1124, pyr3@cdc.gov**
Supplemental Information Required	**See Supplemental Form**
Supplemental Form	http://www.cdc.gov/ncezid/dhcpp/vspb/pdf/specimen-submission.pdf
Performed on Specimens From	Human and Animal
Acceptable Sample/ Specimen Type for Testing	Blood and serum
Minimum Volume Required	1 mL
Storage & Preservation of Specimen Prior to Shipping	Specimen must be kept cold (at or below 4°C). If possible place specimen in plastic screw capped vials. See link to supplemental submission form for specific information on various specimen types.
Transport Medium	Not Applicable
Specimen Labeling	Patient name, patient ID #, specimen type, date collected
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday-Thursday overnight to avoid weekend deliveries. Specimen should be shipped on cold packs or dry ice if frozen. See supplemental submission forms for further details. Do not ship specimen without prior consultation and approval.
Methodology	ELISA
Turnaround Time	10 Days
Interferences & Limitations	Specimen must remain frozen; warming or freeze thawing reduces sensitivity
Additional Information	Critical specimens will take less than 4 days to turn around. See link to supplemental submission forms for detailed information.
CDC Points of Contact	John Klena (404) 639-0114 irc4@cdc.gov Pierre Rollin (404) 639-1124 pyr3@cdc.gov

Test Order

Legionella species Identification and Typing

CDC-10159

Synonym(s)	Legionnaires' disease or LD, Legionellosis, Pontiac fever
Pre-Approval Needed	**None**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human and Food/Environmental/Medical Devices/Biologics
Acceptable Sample/ Specimen Type for Testing	Human Origin: Isolates or primary specimens for culture. Acceptable clinical specimens are sputum, bronchoalveolar lavage (BAL), lung tissue, endotracheal tube (ETT), and tracheal aspirate. Environmental Origin: Isolates only
Minimum Volume Required	Contingent on specimen type. Please see attached shipping instructions for details. http://www.cdc.gov/legionella/downloads/shipping-instructions.pdf
Storage & Preservation of Specimen Prior to Shipping	Clinical specimens should be frozen immediately. Isolates should be prepared on appropriate slants [Buffered Charcoal Yeast (BCYE)] and shipped at 4°C. Please see attached shipping instructions for details. http://www.cdc.gov/legionella/downloads/shipping-instructions.pdf
Transport Medium	BCYE or equivalent slants for isolates
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Do not ship on Fridays or the day before a federal holiday. Please see attached shipping instructions for details. http://www.cdc.gov/legionella/downloads/shipping-instructions.pdf
Methodology	Culture, Serogrouping, Sequencing, Real Time PCR
Turnaround Time	4 Weeks
Interferences & Limitations	Specimen should be acquired prior to antibiotic treatment. Improper specimen storage and handling may result in inconclusive or inaccurate results.
Additional Information	If only PCR is needed then turn around time will be shorter than 4 weeks
CDC Points of Contact	legionellalab@cdc.gov (Primary Contact) Natalia Kozak (Emergency) (404) 639-2305 htv2@cdc.gov Jonas Winchell (Emergency) (404) 639-4921 Jwinchell@cdc.gov

Test Order

Legionella species Molecular Detection

CDC-10160

Synonym(s)	Legionnaires' disease or LD, Legionellosis, Pontiac fever, Atypical pneumonia
Pre-Approval Needed	**None**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human and Food/Environmental/Medical Devices/Biologics
Acceptable Sample/ Specimen Type for Testing	Human Origin: Isolates, purified nucleic acid, or primary specimens. Acceptable clinical specimens are sputum, bronchoalveolar lavage (BAL), lung tissue, endotracheal tube (ETT), and tracheal aspirate. Environmental Origin: Isolates only
Minimum Volume Required	Contingent on specimen type. Please see attached shipping instructions for details. http://www.cdc.gov/legionella/downloads/shipping-instructions.pdf
Storage & Preservation of Specimen Prior to Shipping	Clinical specimens should be frozen immediately. Isolates should be prepared on appropriate slants [Buffered Charcoal Yeast (BCYE)] and shipped at 4°C. Please see attached shipping instructions for details. http://www.cdc.gov/legionella/downloads/shipping-instructions.pdf
Transport Medium	BCYE or equivalent slants for isolates
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Do not ship on Fridays or the day before a federal holiday. Please see attached shipping instructions for details. http://www.cdc.gov/legionella/downloads/shipping-instructions.pdf
Methodology	Real Time PCR, Sequencing
Turnaround Time	10 Days
Interferences & Limitations	Specimen should be acquired prior to antibiotic treatment. Improper specimen storage and handling may result in inconclusive or inaccurate results.
Additional Information	None
CDC Points of Contact	legionellalab@cdc.gov (Primary Contact) Natalia Kozak (Emergency) (404) 639-2305 htv2@cdc.gov Jonas Winchell (Emergency) (404) 639-4921 Jwinchell@cdc.gov

Test Order

Legionella species Study

CDC-10161

Synonym(s)	None
Pre-Approval Needed	**, legionellalab@cdc.gov, , Winchell, Jonas, (404) 639-4921, Jwinchell@cdc.gov**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human and Food/Environmental/Medical Devices/Biologics
Acceptable Sample/ Specimen Type for Testing	To be determined
Minimum Volume Required	To be determined
Storage & Preservation of Specimen Prior to Shipping	To be determined
Transport Medium	To be determined
Specimen Labeling	To be determined
Shipping Instructions which Include Specimen Handling Requirements	Do not ship on Fridays or the day before a federal holiday. Please see attached shipping instructions for details. http://www.cdc.gov/legionella/downloads/shipping-instructions.pdf
Methodology	
Turnaround Time	
Interferences & Limitations	To be determined
Additional Information	To be determined
CDC Points of Contact	legionellalab@cdc.gov (Primary Contact) Jonas Winchell (Emergency) (404) 639-4921 Jwinchell@cdc.gov Natalia Kozak (Emergency) (404) 639-2305 htv2@cdc.gov

Test Order

Leishmania species Identification

CDC-10238

Synonym(s)	Parasite
Pre-Approval Needed	**None**
Supplemental Information Required	**Must contact CDC prior to sample collection at bnz0@cdc.gov, and CDC will provide the culture medium (typically Novy-MacNeal-Nicolle (NNN) medium).**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Tissue, blood, bone marrow
Minimum Volume Required	Not Applicable
Storage & Preservation of Specimen Prior to Shipping	No Specific Requirements
Transport Medium	Culture medium (typically Novy-MacNeal-Nicolle (NNN) medium). Keep media refrigerated until it is used (stable for 2-4 weeks) and bring it to room temperature right before inoculation. Once inoculated, keep the culture at room temperature and send to CDC as soon as possible by overnight mail.
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday - Thursday, overnight to avoid weekend deliveries. Culture should be kept at room temperature and mailed as soon as possible, as an etiologic agent. Blood and bone marrow should be shipped on wet ice (cold pack).
Methodology	PCR and DNA sequencing, Culture
Turnaround Time	6 Weeks
Interferences & Limitations	Formalin fixed specimens are not suitable for culture
Additional Information	None
CDC Points of Contact	Marcos de Almeida (404) 718-4175 bnz0@cdc.gov Yvonne Qvarnstrom (404) 718-4123 bvp2@cdc.gov

Test Order

Leishmaniasis Serology

CDC-10463

Synonym(s)	Leishmaniasis Serology, Visceral leishmaniasis, Kala azar; *Leishmania donovoni*, *Leishmania major*, *Leishmania*, parasite
Pre-Approval Needed	**None**
Supplemental Information Required	**Exposure and travel history, include other relevant risk factors; clinical symptoms, treatment and relevant lab results.**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Serum and Plasma
Minimum Volume Required	0.5 mL
Storage & Preservation of Specimen Prior to Shipping	No specific requirements
Transport Medium	Not Applicable
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday – Thursday, overnight to avoid weekend deliveries. Ship specimen at room temperature, not on dry ice, as an etiologic agent.
Methodology	Antibody detection
Turnaround Time	18 Days
Interferences & Limitations	Substances known to interfere with immunoassays include: bilirubin, lipids, and hemoglobin
Additional Information	None
CDC Points of Contact	Marcos de Almeida (404) 718-4175 bnz0@cdc.gov Yvonne Qvarnstrom (404) 718-4123 bvp2@cdc.gov

Test Order

Leptospira species Identification and Genotyping

CDC-10199

Synonym(s)	Leptospirosis
Pre-Approval Needed	**Galloway, Renee, (404) 639-5461, zul0@cdc.gov** **Stoddard, Robyn, (40) 463-9205, frd8@cdc.gov**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human and Animal
Acceptable Sample/ Specimen Type for Testing	Isolate and media inoculated with clinical specimens (blood, tissue and urine)
Minimum Volume Required	Not Applicable
Storage & Preservation of Specimen Prior to Shipping	Cultures should be stored at room temperature
Transport Medium	Isolates need to be shipped on Ellinghausen-McCullough-Johnson-Harris (EMJH) semisolid media
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Ship specimen Monday -Thursday overnight to avoid weekend deliveries Isolates should be shipped at room temperature. All other specimens shipped at 4°C.
Methodology	Multilocus sequence typing (MLST), Pulsed field gel electrophoresis (PFGE), Microscopy, Polymerase Chain Reaction (PCR)
Turnaround Time	2 Weeks
Interferences & Limitations	None
Additional Information	Turnaround time will vary depending on if an isolate is sent for identification or a specimen is sent for isolation. Primary isolation from clinical specimens takes up to 6 months.
CDC Points of Contact	Renee Galloway (404) 639-5461 zul0@cdc.gov Robyn Stoddard (404) 639-2053 frd8@cdc.gov

Test Order

Leptospira species Molecular Detection

CDC-10200

Synonym(s)	Leptospirosis
Pre-Approval Needed	**None**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human and Animal
Acceptable Sample/ Specimen Type for Testing	Clinical specimens (blood and urine). Blood specimens should be collected in EDTA or Sodium Citrate tubes
Minimum Volume Required	250 uL
Storage & Preservation of Specimen Prior to Shipping	Keep frozen at -20ºC
Transport Medium	Blood specimens transported in EDTA or Sodium Citrate tubes
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Ship specimen Monday -Thursday overnight to avoid weekend deliveries Specimens should be shipped frozen at -20ºC
Methodology	Polymerase Chain Reaction (PCR)
Turnaround Time	2 Weeks
Interferences & Limitations	Blood specimens collected in heparin are not acceptable
Additional Information	None
CDC Points of Contact	Robyn Stoddard (404) 639-2053 frd8@cdc.gov Renee Galloway (404) 639-5461 zul0@cdc.gov

Test Order

Leptospira species Serology

CDC-10201

Synonym(s)	Leptospirosis
Pre-Approval Needed	**None**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human and Animal
Acceptable Sample/ Specimen Type for Testing	Serum for MAT (acute and convalescent preferred for MAT). Serum or whole blood for ImmunoDOT (human only)
Minimum Volume Required	100 uL
Storage & Preservation of Specimen Prior to Shipping	Store serum at 4°C before shipping
Transport Medium	Not Applicable
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Ship specimen Monday -Thursday overnight to avoid weekend deliveries Serum should be shipped at 4°C
Methodology	MAT-micro agglutination, ImmunoDOT
Turnaround Time	2 Weeks
Interferences & Limitations	Acute and convalescent preferred for MAT MAT can be performed on human or animal sera but ImmunoDOT is for human sera only
Additional Information	ImmunoDOT (IgM detection) can be reported within 1 week while MAT takes up to 2 weeks for confirmation
CDC Points of Contact	Renee Galloway (404) 639-5461 zul0@cdc.gov Robyn Stoddard (404) 639-2053 frd8@cdc.gov

Test Order

Leptospira species Study

CDC-10202

Synonym(s)	None
Pre-Approval Needed	**Galloway, Renee, (404) 639-5461, zul0@cdc.gov** **Stoddard, Robyn, (404) 639-2053, frd8@cdc.gov**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human, Animal, and Food/Environmental/Medical Devices/Biologics
Acceptable Sample/ Specimen Type for Testing	To be determined
Minimum Volume Required	To be determined
Storage & Preservation of Specimen Prior to Shipping	To be determined
Transport Medium	To be determined
Specimen Labeling	To be determined
Shipping Instructions which Include Specimen Handling Requirements	To be determined
Methodology	
Turnaround Time	
Interferences & Limitations	To be determined
Additional Information	To be determined
CDC Points of Contact	Renee Galloway (404) 639-5461 zul0@cdc.gov Robyn Stoddard (404) 639-2053 frd8@cdc.gov

Test Order

Listeria Identification

CDC-10128

Synonym(s)	*Listeria*
Pre-Approval Needed	**None**
Supplemental Information Required	**Prior approval is not required for human specimens but is required for all other specimen types.** **Provide any preliminary results that are available.**
Supplemental Form	**None**
Performed on Specimens From	Human, Animal, and Food/Environmental/Medical Devices/Biologics
Acceptable Sample/ Specimen Type for Testing	Isolates
Minimum Volume Required	Not Applicable
Storage & Preservation of Specimen Prior to Shipping	No Specific Requirements
Transport Medium	Ship growth on nonselective slant/stab such as TSA, HIA, etc.; screw cap tubes preferred.
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday-Thursday, overnight to avoid weekend deliveries Ship at ambient temperature in compliance with Federal and local guidelines
Methodology	Phenotypic Idenification, Genetic Identification
Turnaround Time	4 Weeks
Interferences & Limitations	None
Additional Information	Turnaround times for routine isolates may be extended during major foodborne outbreak activities or due to limited availability of resources.
CDC Points of Contact	Cheryl Tarr (404) 639-2011 crt6@cdc.gov Zuzana Kucerova (404) 718-4143 zik0@cdc.gov

Test Order

Listeria monocytogenes Identification and Subtyping

CDC-10129

Synonym(s)	*Listeria* Typing
Pre-Approval Needed	**None**
Supplemental Information Required	**Prior approval is not required for human specimens, but is required for all other specimen types.** **Provide any preliminary results available. Indicate subtyping method(s) requested on specimen submission form.**
Supplemental Form	**None**
Performed on Specimens From	Human, Animal, and Food/Environmental/Medical Devices/Biologics
Acceptable Sample/ Specimen Type for Testing	Isolates
Minimum Volume Required	Not Applicable
Storage & Preservation of Specimen Prior to Shipping	No Specific Requirements
Transport Medium	Ship growth on nonselective slant/stab such as TSA, HIA, etc.; screw cap tubes preferred.
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday-Thursday, overnight to avoid weekend deliveries Ship at ambient temperature in compliance with Federal and local guidelines
Methodology	Phenotypic Identification, Genetic Identification, PFGE, MLVA
Turnaround Time	8 Weeks
Interferences & Limitations	None
Additional Information	Turnaround times for routine isolates may be extended during major foodborne outbreak activities due to limited availability of resources.
CDC Points of Contact	Cheryl Tarr (404) 639-2011 crt6@cdc.gov Zuzana Kucerova (404) 718-4143 zik0@cdc.gov

Test Order

Listeria Study

CDC-10130

Synonym(s)	None
Pre-Approval Needed	**Tarr, Cheryl, (404) 639-2011, crt6@cdc.gov** **Kucerova, Zuzana, (404) 718-4143, zik0@cdc.gov**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human, Animal, and Food/Environmental/Medical Devices/Biologics
Acceptable Sample/ Specimen Type for Testing	To be determined
Minimum Volume Required	To be determined
Storage & Preservation of Specimen Prior to Shipping	To be determined
Transport Medium	To be determined
Specimen Labeling	To be determined
Shipping Instructions which Include Specimen Handling Requirements	To be determined
Methodology	
Turnaround Time	
Interferences & Limitations	To be determined
Additional Information	To be determined
CDC Points of Contact	Cheryl Tarr (404) 639-2011 crt6@cdc.gov Zuzana Kucerova (404) 718-4143 zik0@cdc.gov

Test Order

LRN Biothreat Multi-Agent Screening - Environmental

CDC-10430

Synonym(s)	Screening for *Bacillus anthracis*, *Brucella spp.*, *Burkholderia mallei*, *Burkholderia pseudomallei*, *Francisella tularensis*, *Yersinia pestis*, Orthopoxvirus, and ricin toxin.
Pre-Approval Needed	**Bowzard, Brad, (404) 639-3626, jbowzard@cdc.gov** **Sue, David, (404) 639-4027, dsue@cdc.gov**
Supplemental Information Required	**Please contact Dr. Brad Bowzard at 404 639-3626 or jbowzard@cdc.gov, for the required supplemental form and packaging and shipping requirements.**
Supplemental Form	**None**
Performed on Specimens From	Food/Environmental/Medical Devices/Biologics
Acceptable Sample/ Specimen Type for Testing	Bulk sampling of visible materials (e.g., powders, liquids, etc.) and/or sampling from contaminated surfaces (e.g., with polyester swabs).
Minimum Volume Required	Dependent on Specimen Type
Storage & Preservation of Specimen Prior to Shipping	Dry swabs or powders can be stored and shipped at room temperature. Liquid samples should be held and shipped at 4°C.
Transport Medium	None
Specimen Labeling	No special requirements
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday-Thursday, overnight to avoid weekend deliveries, if possible. If weekend delivery is necessary, please contact laboratory upon shipment.
Methodology	Real Time PCR, Culture Isolation, Time-Resolved Fluorescence
Turnaround Time	
Interferences & Limitations	Dependent on sample time
Additional Information	Turnaround time is dependent on test and sample type.
CDC Points of Contact	Brad Bowzard (404) 639-3626 jbowzard@cdc.gov David Sue (404) 639-4027 dsue@cdc.gov

Test Order

LRN Biothreat Multi-Agent Surface Samples - Environmental

CDC-10495

Synonym(s)	*Bacillus anthracis* spore environmental swab and wipe processing procedures; 3M™ Sponge Stick®, macrofoam swabs, surface samples
Pre-Approval Needed	**Bowzard, Brad, (404) 639-3626, jbowzard@cdc.gov** **Sue, David, (404) 639-4027, dsue@cdc.gov**
Supplemental Information Required	**Please contact Dr. Brad Bowzard at 404 639-3626 or jbowzard@cdc.gov for the required supplemental form and packaging and shipping requirements.**
Supplemental Form	**None**
Performed on Specimens From	Food/Environmental/Medical Devices/Biologics
Acceptable Sample/ Specimen Type for Testing	Sampling from surfaces with no visible contamination using Macrofoam swab or 3M™ Sponge Stick®; currently only applies for *B. anthracis*.
Minimum Volume Required	For appropriate interpretation of results, defined sampling areas for each device must be followed: Macrofoam swab = 26cm2 , 3M™ Sponge Stick® = 645 cm2.
Storage & Preservation of Specimen Prior to Shipping	Devices should be held at 4 degrees and shipped on ice within 24 hours of collection.
Transport Medium	None
Specimen Labeling	No special requirements
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday-Thursday, overnight to avoid weekend deliveries, if possible. If weekend delivery is necessary, please contact laboratory upon shipment.
Methodology	Culture with RT-PCR confirmation of colonies
Turnaround Time	4 Days
Interferences & Limitations	Large quantities of dust and/or other organisms may reduce limits of detection.
Additional Information	Testing should be initiated within 24 hours of receipt. Turn around time ranges from 1-4 days.
CDC Points of Contact	Brad Bowzard (404) 639-3626 jbowzard@cdc.gov David Sue (404) 639-4027 dsue@cdc.gov

Test Order

Lymphocytic Choriomeningitis (LCM) Identification

CDC-10345

Synonym(s)	LCM, *Arenavirus*
Pre-Approval Needed	**Klena, John, (404) 639-0114, irc4@cdc.gov** **Rollin, Pierre, (404) 639-1124, pyr3@cdc.gov**
Supplemental Information Required	**See Supplemental Form**
Supplemental Form	**http://www.cdc.gov/ncezid/dhcpp/vspb/pdf/specimen-submission.pdf**
Performed on Specimens From	Human and Animal
Acceptable Sample/ Specimen Type for Testing	Frozen tissue, blood, serum, and CSF
Minimum Volume Required	1 mL
Storage & Preservation of Specimen Prior to Shipping	Specimen must be placed in plastic screw capped vials, frozen to -70°C, and kept frozen until shipment. See link to supplemental submission form for specific information on various specimen types.
Transport Medium	Not Applicable
Specimen Labeling	Patient name, patient ID #, specimen type, date collected
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday-Thursday overnight to avoid weekend deliveries. Specimen should be shipped frozen on dry ice. See supplemental submission forms for further details. Do not ship specimen without prior consultation and approval.
Methodology	Molecular Typing, Polymerase Chain Reaction (PCR)
Turnaround Time	10 Days
Interferences & Limitations	Specimen must remain frozen; warming or freeze thawing reduces sensitivity. Heparin may cause interference with the molecular tests and should be avoided.
Additional Information	Critical specimens will take less than 4 days to turn around. See link to supplemental submission forms for detailed information.
CDC Points of Contact	John Klena (404) 639-0114 irc4@cdc.gov Pierre Rollin (404) 639-1124 pyr3@cdc.gov

Test Order

Lymphocytic Choriomeningitis (LCM) Serology

CDC-10346

Synonym(s)	LCM, *Arenavirus*
Pre-Approval Needed	**Klena, John, (404) 639-0114, irc4@cdc.gov** **Rollin, Pierre, (404) 639-1124, pyr3@cdc.gov**
Supplemental Information Required	**See Supplemental Form**
Supplemental Form	**http://www.cdc.gov/ncezid/dhcpp/vspb/pdf/specimen-submission.pdf**
Performed on Specimens From	Human and Animal
Acceptable Sample/ Specimen Type for Testing	CSF, blood and serum
Minimum Volume Required	1 mL
Storage & Preservation of Specimen Prior to Shipping	Specimen must be kept cold (at or below 4°C). If possible place specimen in plastic screw capped vials. See link to supplemental submission form for specific information on various specimen types.
Transport Medium	Not Applicable
Specimen Labeling	Patient name, patient ID #, specimen type, date collected
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday-Thursday overnight to avoid weekend deliveries. Specimen should be shipped on cold packs or dry ice if frozen. See supplemental submission forms for further details. Do not ship specimen without prior consultation and approval.
Methodology	ELISA
Turnaround Time	10 Days
Interferences & Limitations	Specimen must remain frozen; warming or freeze thawing reduces sensitivity
Additional Information	Critical specimens will take less than 4 days to turn around. See link to supplemental submission forms for detailed information.
CDC Points of Contact	John Klena (404) 639-0114 irc4@cdc.gov Pierre Rollin (404) 639-1124 pyr3@cdc.gov

Test Order

Machupo Identification

CDC-10347

Synonym(s)	Bolivian Hemorrhagic Fever, BHF, *Arenavirus*
Pre-Approval Needed	**Klena, John, (404) 639-0114, irc4@cdc.gov** **Rollin, Pierre, (404) 639-1124, pyr3@cdc.gov**
Supplemental Information Required	**See Supplemental Form**
Supplemental Form	**http://www.cdc.gov/ncezid/dhcpp/vspb/pdf/specimen-submission.pdf**
Performed on Specimens From	Human and Animal
Acceptable Sample/ Specimen Type for Testing	Frozen tissue, blood and serum
Minimum Volume Required	1 mL
Storage & Preservation of Specimen Prior to Shipping	Specimen must be placed in plastic screw capped vials, frozen to -70°C, and kept frozen until shipment. See link to supplemental submission form for specific information on various specimen types.
Transport Medium	Not Applicable
Specimen Labeling	Patient name, patient ID #, specimen type, date collected
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday-Thursday overnight to avoid weekend deliveries. Specimen should be shipped frozen on dry ice. See supplemental submission forms for further details. Do not ship specimen without prior consultation and approval.
Methodology	Molecular Typing, Polymerase Chain Reaction (PCR)
Turnaround Time	10 Days
Interferences & Limitations	Specimen must remain frozen; warming or freeze thawing reduces sensitivity. Heparin may cause interference with the molecular tests and should be avoided.
Additional Information	Critical specimens will take less than 4 days to turn around. See link to supplemental submission forms for detailed information.
CDC Points of Contact	John Klena (404) 639-0114 irc4@cdc.gov Pierre Rollin (404) 639-1124 pyr3@cdc.gov

Test Order

Machupo Serology

CDC-10348

Synonym(s)	Bolivian Hemorrhagic Fever, BHF, *Arenavirus*
Pre-Approval Needed	**Klena, John, (404) 639-0114, irc4@cdc.gov** **Rollin, Pierre, (404) 639-1124, pyr3@cdc.gov**
Supplemental Information Required	**See Supplemental Form**
Supplemental Form	**http://www.cdc.gov/ncezid/dhcpp/vspb/pdf/specimen-submission.pdf**
Performed on Specimens From	Human and Animal
Acceptable Sample/ Specimen Type for Testing	Blood and serum
Minimum Volume Required	1 mL
Storage & Preservation of Specimen Prior to Shipping	Specimen must be kept cold (at or below 4°C). If possible place specimen in plastic screw capped vials. See link to supplemental submission form for specific information on various specimen types.
Transport Medium	Not Applicable
Specimen Labeling	Patient name, patient ID #, specimen type, date collected
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday-Thursday overnight to avoid weekend deliveries. Specimen should be shipped on cold packs or dry ice if frozen. See supplemental submission forms for further details. Do not ship specimen without prior consultation and approval.
Methodology	ELISA
Turnaround Time	10 Days
Interferences & Limitations	Specimen must remain frozen; warming or freeze thawing reduces sensitivity
Additional Information	Critical specimens will take less than 4 days to turn around. See link to supplemental submission forms for detailed information.
CDC Points of Contact	John Klena (404) 639-0114 irc4@cdc.gov Pierre Rollin (404) 639-1124 pyr3@cdc.gov

Test Order

Malaria Molecular Identification

CDC-10480

Synonym(s)	*Plasmodium falciparum*, *Plasmodium vivax*, *Plasmodium malariae*, *Plasmodium ovale,* parasite
Pre-Approval Needed	**None**
Supplemental Information Required	**Please include the blood smear slides in the shipment**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Blood; Please include the blood smear slides in the shipment
Minimum Volume Required	200 uL
Storage & Preservation of Specimen Prior to Shipping	Collect a 1-5 ml blood sample in Vacutainer® EDTA tubes prior to anti-parasitic therapy and store at 4°C.
Transport Medium	Not Applicable
Specimen Labeling	Test subject to CLIA regulations require two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday - Thursday, overnight to avoid weekend deliveries. Ship specimen on wet ice (cold pack) as an etiologic agent.
Methodology	Conventional PCR, Real-Time PCR
Turnaround Time	21 Days
Interferences & Limitations	None
Additional Information	None
CDC Points of Contact	Yvonne Qvarnstrom (404) 718-4123 bvp2@cdc.gov Samaly dos Santos Souza (404) 718-4786 ynp4@cdc.gov

Test Order

Malaria Serology

CDC-10464

Synonym(s)	*Plasmodium falciparum*, *Plasmodium vivax*, *Plasmodium malariae,* parasite
Pre-Approval Needed	**None**
Supplemental Information Required	**Travel history REQUIRED, include other relevant risk factors; clinical symptoms, treatment and relevant lab results.**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Serum and Plasma
Minimum Volume Required	0.5 mL
Storage & Preservation of Specimen Prior to Shipping	No specific requirements
Transport Medium	Not Applicable
Specimen Labeling	Test subject to CLIA regulations require two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday – Thursday, overnight to avoid weekend deliveries. Ship specimen at room temperature, not on dry ice, as an etiologic agent.
Methodology	Indirect Fluorescent Antibody Assay, Antibody Detection
Turnaround Time	18 Days
Interferences & Limitations	Substances known to interfere with immunoassays include: bilirubin, lipids, and hemoglobin
Additional Information	None
CDC Points of Contact	Hilda Rivera (404) 718-4100 igi2@cdc.gov DPDx (404) 718-4120 dpdx@cdc.gov

Test Order

Malaria Surveillance

CDC-10235

Synonym(s)	Malaria Drug Resistance typing, parasite
Pre-Approval Needed	**None**
Supplemental Information Required	**Supplemental form not needed**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Blood collected in EDTA tubes
Minimum Volume Required	1.0 mL
Storage & Preservation of Specimen Prior to Shipping	Blood should be collected in EDTA tubes
Transport Medium	Not Applicable
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday - Thursday, overnight to avoid weekend deliveries. Do not ship specimen frozen.
Methodology	Polymerase Chain Reaction (PCR), DNA Sequencing, In-vitro culture
Turnaround Time	
Interferences & Limitations	None
Additional Information	Turnaround time is determined by the surveillance project, no individual patient reports are issued Please provide information on travel history and history of anti-malarial usage
CDC Points of Contact	John Barnwell (404) 718-4420 wzb3@cdc.gov Lucianna Flannery (404) 718-4404 vva3@cdc.gov

Test Order

Marburg Identification

CDC-10349

Synonym(s)	None
Pre-Approval Needed	**Klena, John, (404) 639-0114, irc4@cdc.gov** **Rollin, Pierre, (404) 639-1124, pyr3@cdc.gov**
Supplemental Information Required	**See Supplemental Form**
Supplemental Form	**http://www.cdc.gov/ncezid/dhcpp/vspb/pdf/specimen-submission.pdf**
Performed on Specimens From	Human and Animal
Acceptable Sample/ Specimen Type for Testing	Frozen tissue, blood and serum
Minimum Volume Required	1 mL
Storage & Preservation of Specimen Prior to Shipping	Specimen must be placed in plastic screw capped vials, frozen to -70°C, and kept frozen until shipment. See link to supplemental submission form for specific information on various specimen types.
Transport Medium	Not Applicable
Specimen Labeling	Patient name, patient ID #, specimen type, date collected
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday-Thursday overnight to avoid weekend deliveries. Specimen should be shipped frozen on dry ice. See supplemental submission forms for further details. Do not ship specimen without prior consultation and approval.
Methodology	Molecular Typing, Polymerase Chain Reaction (PCR)
Turnaround Time	10 Days
Interferences & Limitations	Specimen must remain frozen; warming or freeze thawing reduces sensitivity. Heparin may cause interference with the molecular tests and should be avoided.
Additional Information	Critical specimens will take less than 4 days to turn around. See link to supplemental submission forms for detailed information.
CDC Points of Contact	John Klena (404) 639-0114 irc4@cdc.gov Pierre Rollin (404) 639-1124 pyr3@cdc.gov

Test Order

Marburg Serology

CDC-10350

Synonym(s)	None
Pre-Approval Needed	**Klena, John, (404) 639-0114, irc4@cdc.gov** **Rollin, Pierre, (404) 639-1124, pyr3@cdc.gov**
Supplemental Information Required	**See Supplemental Form**
Supplemental Form	http://www.cdc.gov/ncezid/dhcpp/vspb/pdf/specimen-submission.pdf
Performed on Specimens From	Human and Animal
Acceptable Sample/ Specimen Type for Testing	Blood and serum
Minimum Volume Required	1 mL
Storage & Preservation of Specimen Prior to Shipping	Specimen must be kept cold (at or below 4°C). If possible place specimen in plastic screw capped vials. See link to supplemental submission form for specific information on various specimen types.
Transport Medium	Not Applicable
Specimen Labeling	Patient name, patient ID #, specimen type, date collected
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday-Thursday overnight to avoid weekend deliveries. Specimen should be shipped on cold packs or dry ice if frozen. See supplemental submission forms for further details. Do not ship specimen without prior consultation and approval.
Methodology	ELISA
Turnaround Time	10 Days
Interferences & Limitations	Specimen must remain frozen; warming or freeze thawing reduces sensitivity
Additional Information	Critical specimens will take less than 4 days to turn around. See link to supplemental submission forms for detailed information.
CDC Points of Contact	John Klena (404) 639-0114 irc4@cdc.gov Pierre Rollin (404) 639-1124 pyr3@cdc.gov

Test Order

Measles and Rubella Detection (PCR) and Genotyping

CDC-10243

Synonym(s)	Measles, Rubeola, Rubella, German measles; three day measles
Pre-Approval Needed	**None**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Throat swab in viral medium, Nasopharyngeal aspirate or swab, urine, cataracts, lens aspirate, oral fluid, cerebrospinal fluid (CSF), dry blood spots, and tissue samples
Minimum Volume Required	Not Applicable
Storage & Preservation of Specimen Prior to Shipping	Measles: http://www.cdc.gov/measles/lab-tools/ Rubella: http://www.cdc.gov/rubella/lab/index.html Also see: http://www.cdc.gov/vaccines/pubs/surv-manual/index.html http://www.cdc.gov/measles/lab-tools/index.html
Transport Medium	Viral transport medium for swabs and appropriate culture medium. Make sure tubes are all in leak proof containers.
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition. Clearly label specimen type.
Shipping Instructions which Include Specimen Handling Requirements	The laboratory requests that the sender contacts the laboratory by email or phone before shipping. For shipping address see: http://www.cdc.gov/measles/lab-tools/ Ship specimen Monday -Thursday overnight to avoid weekend deliveries Frozen specimen should be shipped on dry ice Refrigerated specimen should be shipped on cold packs
Methodology	Real time RT-PCR, Genotyping by nucleic acid sequencing, Template production by RT-PCR, Viral culture
Turnaround Time	7 Days
Interferences & Limitations	Measles: http://www.cdc.gov/measles/lab-tools/ Rubella: http://www.cdc.gov/rubella/lab/index.html Also see, http://www.cdc.gov/vaccines/pubs/surv-manual/index.html http://www.cdc.gov/measles/lab-tools/index.html
Additional Information	Please include vaccination history, age, date of symptom onset and sample collection
CDC Points of Contact	Paul Rota (404) 639-4181 par1@cdc.gov Joe Icenogle (404) 639-4557 jci1@cdc.gov

Test Order

Measles and Rubella Serology

CDC-10247

Synonym(s)	Measles, Rubeola, Rubella, German measles, three day measles
Pre-Approval Needed	**None**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Serum and others upon consultation with laboratory
Minimum Volume Required	200 uL
Storage & Preservation of Specimen Prior to Shipping	Serum should be kept refrigerated or frozen
Transport Medium	Not Applicable
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition. Clearly label specimen type.
Shipping Instructions which Include Specimen Handling Requirements	Ship specimen Monday -Thursday overnight to avoid weekend deliveries. Refrigerated or frozen specimen should be shipped on cold packs. laboratory will instruct on how to ship for other specimen types.
Methodology	Commercial capture IgM, Commercial indirect IgG
Turnaround Time	7 Days
Interferences & Limitations	IgM positive may not occur until 5 days post-rash onset
Additional Information	IgM and IgG assays are qualitative assays. For outbreaks or immuno-compromised patients please contact laboratory prior to shipment.
CDC Points of Contact	Bill Bellini (404) 639-4183 wjb2@cdc.gov Joe Icenogle (404) 639-4557 jci1@cdc.gov

Test Order
Measles Avidity
CDC-10248

Synonym(s)	None
Pre-Approval Needed	**Mercader, Sara, (404) 639-4568, sjm7@cdc.gov** **Hickman, Carole, (404) 639-3339, cjh3@cdc.gov**
Supplemental Information Required	**See additional information**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Serum
Minimum Volume Required	300 uL
Storage & Preservation of Specimen Prior to Shipping	Serum should be kept refrigerated, not frozen
Transport Medium	Not Applicable
Specimen Labeling	Provide a unique identifier on the specimen container and the test requisition
Shipping Instructions which Include Specimen Handling Requirements	Ship specimen Monday -Thursday overnight to avoid weekend deliveries Refrigerated specimen should be shipped on cold packs
Methodology	Measles avidity
Turnaround Time	30 Days
Interferences & Limitations	None
Additional Information	http://www.cdc.gov/vaccines/pubs/surv-manual/index.html The measles avidity assay is a specialized tool that may help with confirmation of suspect cases with RT-PCR-negative results or with questionable IgM results (false positive or false negative results are suspected). However, avidity results cannot rule out cases. Avidity testing can also help in vaccine failure classification. Assay limitations include difficulty in interpretation of results from infants with potential presence of maternal antibodies or from individuals recently immunized with measles vaccine. Samples must be measles IgG positive for testing The following information is required for result interpretation: - Records of vaccination status, with the number of doses and dates of administration - Date of birth - Date of rash onset - Date of sample collection - Clinical symptoms. The MMRH Laboratory Branch reserves the right to determine if testing for measles avidity could be beneficial.
CDC Points of Contact	Sara Mercader (404) 639-4568

sjm7@cdc.gov
Carole Hickman
(404) 639-3339
cjh3@cdc.gov

Test Order

Measles Detection (PCR) and Genotyping

CDC-10240

Synonym(s)	Rubeola
Pre-Approval Needed	**None**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Throat swab in viral transport medium, nasopharyngeal aspirate or swab, urine, oral fluid, cerebrospinal fluid (CSF), dry blood spots, and tissue samples
Minimum Volume Required	Not Applicable
Storage & Preservation of Specimen Prior to Shipping	See: http://www.cdc.gov/measles/lab-tools/rt-pcr.html for detailed information on storage and preservation of specimen
Transport Medium	Viral transport medium for swabs. Make sure tubes are all leak proof containers.
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition. Clearly label specimen type.
Shipping Instructions which Include Specimen Handling Requirements	The laboratory requests that the sender contacts the laboratory by email or phone before shipping See instructions and shipping address: http://www.cdc.gov/measles/lab-tools/ Ship specimen Monday -Thursday overnight to avoid weekend deliveries Frozen specimen should be shipped on dry ice Refrigerated specimen should be shipped on cold packs
Methodology	Viral culture, Genotyping by Nucleic acid sequencing, Real time RT-PCR, Template production by RT-PCR
Turnaround Time	7 Days
Interferences & Limitations	See: http://www.cdc.gov/measles/lab-tools/ for information on the interferences and limitations of this test
Additional Information	Please include vaccination history, age, date of rash onset and date of sample collection For additional information, please see measles surveillance manual: http://www.cdc.gov/vaccines/pubs/surv-manual/chpt07-measles.html
CDC Points of Contact	Paul Rota (404) 639-4181 par1@cdc.gov Rebecca McNall (404) 639-4541 dqo2@cdc.gov

Test Order

Measles Neutralization Antibody (Not for Immune Status)

CDC-10250

Synonym(s)	PRN test, Plaque-reduction neutralization
Pre-Approval Needed	**Bellini, Bill, (404) 639-4183, wjb2@cdc.gov** **Sowers, Sun, (404) 639-1360, sib9@cdc.gov**
Supplemental Information Required	**See Supplemental Form**
Supplemental Form	http://www.cdc.gov/vaccines/pubs/surv-manual/index.html
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Serum
Minimum Volume Required	300 uL
Storage & Preservation of Specimen Prior to Shipping	Serum should be kept refrigerated, not frozen
Transport Medium	Not Applicable
Specimen Labeling	Provide a unique identifier on the specimen container and the test requisition
Shipping Instructions which Include Specimen Handling Requirements	Ship specimen Monday -Thursday overnight to avoid weekend deliveries Refrigerated specimen should be shipped on cold packs
Methodology	Neutralization assay - quantitative serological assay
Turnaround Time	4 Weeks
Interferences & Limitations	None
Additional Information	None
CDC Points of Contact	Bill Bellini (404) 639-4183 wjb2@cdc.gov Sun Sowers (404) 639-1360 sib9@cdc.gov

Test Order
Measles Serology
CDC-10244

Synonym(s)	Rubeola
Pre-Approval Needed	**None**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Serum and others upon consultation
Minimum Volume Required	300 uL (50 uL)
Storage & Preservation of Specimen Prior to Shipping	Serum should be kept refrigerated, not frozen
Transport Medium	Not Applicable
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Ship specimen Monday -Thursday overnight to avoid weekend deliveries Refrigerated specimen should be shipped on cold packs Laboratory will instruct on how to ship for other specimen types
Methodology	CDC capture IgM, Commercial indirect IgG
Turnaround Time	7 Days
Interferences & Limitations	IgM positive may not occur until 4 days post-rash onset
Additional Information	IgM and IgG assays are qualitative assays For outbreaks or immuno-compromised patients please contact laboratory prior to shipment Please include vaccination history, age, date of onset and sample collection
CDC Points of Contact	Bill Bellini (404) 639-4183 wjb2@cdc.gov Nobia Williams (404) 639-1049 new8@cdc.gov

Test Order

Measles Special Study

CDC-10251

Synonym(s)	Rubeola
Pre-Approval Needed	**Bellini, Bill, (404) 639-4183, wjb2@cdc.gov** **Rota, Paul, (404) 639-4181, par1@cdc.gov**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	To be determined
Minimum Volume Required	To be determined
Storage & Preservation of Specimen Prior to Shipping	To be determined
Transport Medium	To be determined
Specimen Labeling	To be determined
Shipping Instructions which Include Specimen Handling Requirements	To be determined
Methodology	
Turnaround Time	
Interferences & Limitations	To be determined
Additional Information	To be determined
CDC Points of Contact	Bill Bellini (404) 639-4183 wjb2@cdc.gov Paul Rota (404) 639-4181 par1@cdc.gov

Test Order

MERS-CoV PCR

CDC-10488

Synonym(s)	MERS-CoV PCR, Middle East Respiratory Syndrome Coronavirus PCR
Pre-Approval Needed	**Erdman, Dean, (404) 639-3727, dde1@cdc.gov**
Supplemental Information Required	**See Supplemental Form**
Supplemental Form	**http://www.cdc.gov/coronavirus/mers/downloads/MERS-investigation-short-form.pdf**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Nasopharyngeal wash/aspirates, nasopharyngeal swabs, oropharyngeal swabs, broncheoalveolar lavage, tracheal aspirate, pleural fluid tap, sputum, stool, serum, EDTA blood (plasma), and post-mortem tissue. For more information go to: http://www.cdc.gov/coronavirus/mers/guidelines-clinical-specimens.html; http://www.cdc.gov/coronavirus/mers/guidelines-lab-biosafety.html
Minimum Volume Required	0.25 mL
Storage & Preservation of Specimen Prior to Shipping	Refrigerate or freeze tubes after specimens are placed in them. If specimens will be examined within 48 hours after collection, they can be refrigerated. If specimens must be held longer than 48 hours, freeze them as soon as possible after collection. Although storage in an ultra-low freezer (-70°C) is preferable, storage in a home-type freezer (if properly set at -20°C) is acceptable for short periods. http://www.cdc.gov/coronavirus/mers/guidelines-clinical-specimens.html http://www.cdc.gov/coronavirus/mers/guidelines-lab-biosafety.html
Transport Medium	Swabs may be shipped in commercial viral transport media
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Contact Dean Erdman (dde1@cdc.gov, 404-639-3727) for shipping address. See the following link for additional shipping information: http://www.cdc.gov/coronavirus/mers/guidelines-clinical-specimens.html
Methodology	Polymerase Chain Reaction (PCR), Sequencing
Turnaround Time	2 Days
Interferences & Limitations	**Virus isolation in cell culture and initial characterization of viral agents recovered in cultures of MERS-CoV specimens are NOT recommended at this time. However, if done, these activities must be performed in a BSL-3 facility using BSL-3 work practices.** Use only sterile Dacron or rayon swabs with plastic shafts or if available, flocked swabs. Do NOT use calcium alginate swabs or swabs with wooden sticks, as they may contain substances that inactivate some viruses and inhibit some molecular assays.
Additional Information	http://www.cdc.gov/coronavirus/mers/index.html, http://www.cdc.gov/coronavirus/mers/guidelines-clinical-specimens.html, http://www.cdc.gov/coronavirus/mers/guidelines-lab-biosafety.html
CDC Points of Contact	Dean Erdman (404) 639-3727 dde1@cdc.gov Shifaq Kamili

(404) 639-2799
sgk5@cdc.gov

Test Order

MERS-CoV Serology

CDC-10489

Synonym(s)	Middle East Respiratory Syndrome Coronavirus (MERS-CoV) ELISA, Middle East Respiratory Syndrome Coronavirus (MERS-CoV) EIA
Pre-Approval Needed	**Tatti, Kathleen, (404) 639-3797, ket2@cdc.gov** **Erdman, Dean, (404) 639-3727, dde1@cdc.gov**
Supplemental Information Required	**See Supplemental Form**
Supplemental Form	**http://www.cdc.gov/coronavirus/mers/downloads/MERS-investigation-short-form.pdf**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Serum (single specimen collected >14 days after symptom onset; paired acute and convalescent). For more information go to http://www.cdc.gov/coronavirus/mers/guidelines-clinical-specimens.html
Minimum Volume Required	200µL
Storage & Preservation of Specimen Prior to Shipping	Collect whole blood in a serum separator tube. Allow the blood to clot, centrifuge briefly, and collect all the resulting sera in vials with external caps and internal O-ring seals. If there is no O-ring seal, then seal tightly with the available cap and secure with Parafilm. Do not collect specimen in heparin tubes. Store serum at 4°C. Serum may be frozen, if needed. http://www.cdc.gov/coronavirus/mers/guidelines-clinical-specimens.html, http://www.cdc.gov/coronavirus/mers/guidelines-lab-biosafety.html
Transport Medium	None
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Contact Kathleen Tatti (404-639-3797, ket2@cdc.gov) or Dean Erdman (404-639-3727, dde1@cdc.gov) for shipping address. See the following link for additional shipping information: http://www.cdc.gov/coronavirus/mers/guidelines-clinical-specimens.html
Methodology	ELISA
Turnaround Time	3 Days
Interferences & Limitations	**Virus isolation in cell culture and initial characterization of viral agents recovered in cultures of MERS-CoV specimens are NOT recommended at this time. However, if done, these activities must be performed in a BSL-3 facility using BSL-3 work practices.** Do not collect specimen in heparin tubes.
Additional Information	http://www.cdc.gov/coronavirus/mers/index.html, http://www.cdc.gov/coronavirus/mers/guidelines-clinical-specimens.html, http://www.cdc.gov/coronavirus/mers/guidelines-lab-biosafety.html
CDC Points of Contact	Kathleen Tatti (404) 639-3797 ket2@cdc.gov Dean Erdman (404) 639-3727 dde1@cdc.gov

Test Order

Microsporidia Molecular Identification

CDC-10481

Synonym(s)	*Anncaliia, Encephalitozoon cuniculi, Encephalitozoon hellem, Encephalitozoon intestinalis, Septata intestinalis, Tubulinosema, Enterocytozoon bieneusi, Nosema, Pleistophora, Trachipleistophora, Vittaforma corneae, Nosema corneum,* parasite
Pre-Approval Needed	**None**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human, Animal, and Food/Environmental/Medical Devices/Biologics
Acceptable Sample/ Specimen Type for Testing	Tissue, urine, stool (unpreserved or in a PCR-compatible preservative e.g. EcoFix, UniFix, ZN-PVA, TotalFix, ethanol, potassium dichromate). Other specimen types can be accepted after consultation and pre-approval.
Minimum Volume Required	See Additional Information
Storage & Preservation of Specimen Prior to Shipping	Storage and preservation is specimen specific
Transport Medium	Not Applicable
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday - Thursday, overnight to avoid weekend deliveries. Ship unpreserved specimen on wet ice (cold pack) as an etiologic agent. Preserved/fixed specimens can be shipped at room temperature.
Methodology	Conventional PCR
Turnaround Time	21 Days
Interferences & Limitations	Stool specimens fixed in formalin-containing preservatives or LV-PVA are not suitable for molecular studies.
Additional Information	Minimum Volume Required: 0.5 g of stool or 1ml of urine or 25 mg tissue
CDC Points of Contact	Yvonne Qvarnstrom (404) 718-4123 bvp2@cdc.gov Marcos de Almeida (404) 718-4126 bnz0@cdc.gov

Test Order

Moraxella species ID

CDC-10140

Synonym(s)	*Moraxella*, GNDC
Pre-Approval Needed	**None**
Supplemental Information Required	**Please notify laboratory prior to shipment if this is a critical care specimen**
Supplemental Form	**None**
Performed on Specimens From	Human and Food/Environmental/Medical Devices/Biologics
Acceptable Sample/ Specimen Type for Testing	Pure culture isolate on a suitable agar slant medium; consultation required for other sample/specimen types
Minimum Volume Required	Not Applicable
Storage & Preservation of Specimen Prior to Shipping	Keep specimen refrigerated if unable to ship immediately
Transport Medium	Not Applicable
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Ship specimen Monday-Thursday, overnight to avoid weekend deliveries
Methodology	Primary Culture based on specimen type, MALDI-TOF, 16S sequence based identification
Turnaround Time	3 Weeks
Interferences & Limitations	The 3 week turnaround time applies to all tests unless biochemical and/or phenotypic analysis are required, which could take up to 2 months for test results.
Additional Information	If available, please provide patient history including if the patient has used a catheter and/or if the patient is immunocompromised.
CDC Points of Contact	John McQuiston (404) 639-0270 zje8@cdc.gov Anne Whitney (404) 639-1374 amw0@cdc.gov

Test Order

MPIR - Study

CDC-10428

Synonym(s)	Anthrax TNA
Pre-Approval Needed	**Quinn, Conrad, (404) 639-2858, caq7@cdc.gov** **Schiffer, Jarad, (404) 639-0894, aku3@cdc.gov**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human and Animal
Acceptable Sample/ Specimen Type for Testing	Paired acute and convalescent sera
Minimum Volume Required	200 uL
Storage & Preservation of Specimen Prior to Shipping	Serum should be separated from whole blood and kept at -80°C
Transport Medium	Not Applicable
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition including patient ID, date of collection, submitter information, and specimen ID number.
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday - Thursday, overnight to avoid weekend deliveries. Contact laboratory prior to shipment. Ship paired sera together and all frozen specimen should be shipped on dry ice
Methodology	Cell Based Serological Assay
Turnaround Time	2 Weeks
Interferences & Limitations	Prefer non-hemolyzed specimen and non-lipemic specimen. If they are hemolyzed or lipemic, the specimen will not be tested. Plasma specimen are not accepted. Do not store or send specimen in tubes with preservatives or cell growth inhibitors.
Additional Information	None
CDC Points of Contact	Conrad Quinn (404) 639-2858 caq7@cdc.gov Jarad Schiffer (404) 639-0894 aku3@cdc.gov

Test Order

Mumps Detection (PCR) and Genotyping

CDC-10241

Synonym(s)	None
Pre-Approval Needed	**None**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Buccal swab, nasal swab, throat swab, urine, oral fluid and cerebrospinal fluid (CSF)
Minimum Volume Required	Not Applicable
Storage & Preservation of Specimen Prior to Shipping	See: http://www.cdc.gov/mumps/lab/specimen-collect.html for detailed information on the storage and preservation of the specimen
Transport Medium	http://www.cdc.gov/mumps/lab/
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition. Clearly label specimen type.
Shipping Instructions which Include Specimen Handling Requirements	The laboratory requests that the sender contacts the laboratory by email or phone before shipping See shipping instructions: http://www.cdc.gov/mumps/lab/ Ship specimen Monday -Thursday overnight to avoid weekend deliveries Frozen specimen should be shipped on dry ice Refrigerated specimen should be shipped on cold packs
Methodology	Real time RT-PCR, Template production by RT-PCR, Viral culture, Genotyping by Nucleic acid sequencing
Turnaround Time	7 Days
Interferences & Limitations	See: http://www.cdc.gov/mumps/lab/ for information on the interferences and limitations of this test
Additional Information	Please include vaccination history, age, date of symptom onset and date of sample collection For additional information about mumps surveillance please see: http://www.cdc.gov/vaccines/pubs/surv-manual/chpt09-mumps.html
CDC Points of Contact	Paul Rota (404) 639-4181 par1@cdc.gov Rebecca McNall (404) 639-4541 dqo2@cdc.gov

Test Order

Mumps Neutralization Antibody (Not for Immune Status)

CDC-10351

Synonym(s)	PRN test, Plaque-reduction neutralization
Pre-Approval Needed	**Bellini, Bill, (404) 639-4183, wjb2@cdc.gov** **Hickman, Carole, (404) 639-3339, cjh3@cdc.gov**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Paired serum
Minimum Volume Required	300 uL
Storage & Preservation of Specimen Prior to Shipping	Serum should be kept refrigerated, not frozen.
Transport Medium	Not Applicable
Specimen Labeling	Provide a unique identifier on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Ship specimen Monday -Thursday overnight to avoid weekend deliveries Refrigerated specimen should be shipped on cold packs
Methodology	Neutralization assay - quantitative serological assay
Turnaround Time	4 Weeks
Interferences & Limitations	None
Additional Information	None
CDC Points of Contact	Bill Bellini (404) 639-4183 wjb2@cdc.gov Carole Hickman (404) 639-3339 cjh3@cdc.gov

Test Order

Mumps Serology

CDC-10245

Synonym(s)	None
Pre-Approval Needed	**None**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Serum
Minimum Volume Required	300 uL
Storage & Preservation of Specimen Prior to Shipping	Serum should be kept refrigerated, not frozen
Transport Medium	Not Applicable
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Ship specimen Monday -Thursday overnight to avoid weekend deliveries Refrigerated specimen should be shipped on cold packs
Methodology	CDC IgM Capture, Commercial indirect IgG
Turnaround Time	7 Days
Interferences & Limitations	Rheumatoid factor, Parainfluenza viruses 1, 2, and 3, Epstein-Barr virus, adenovirus, and Human Herpes Virus 6 have all been noted to interfere with mumps serologic assays.
Additional Information	IgM and IgG assays are qualitative assays Please include vaccination history, age, date of onset and sample collection
CDC Points of Contact	Bill Bellini (404) 639-4183 wjb2@cdc.gov Carole Hickman (404) 639-3339 cjh3@cdc.gov

Test Order

Mumps Special Study

CDC-10252

Synonym(s)	None
Pre-Approval Needed	**Bellini, Bill, (404) 639-4183, wjb2@cdc.gov** **Hickman, Carole, (404) 639-3339, cjh3@cdc.gov**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	To be determined
Minimum Volume Required	To be determined
Storage & Preservation of Specimen Prior to Shipping	To be determined
Transport Medium	To be determined
Specimen Labeling	To be determined
Shipping Instructions which Include Specimen Handling Requirements	To be determined
Methodology	
Turnaround Time	
Interferences & Limitations	To be determined
Additional Information	To be determined
CDC Points of Contact	Bill Bellini (404) 639-4183 wjb2@cdc.gov Carole Hickman (404) 639-3339 cjh3@cdc.gov

Test Order

Mycobacterium - Non-tuberculosis Mycobacteria Identification

CDC-10225

Synonym(s)	Non-TB Mycobacteria, Mycobacteria
Pre-Approval Needed	**None**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human, Animal, and Food/Environmental/Medical Devices/Biologics
Acceptable Sample/ Specimen Type for Testing	Isolates demonstrated to not be part of the *Mycobacterium tuberculosis* complex Isolates from the following specimens will be accepted for testing: Sterile sites (e.g., blood, CSF, body fluids) Abscess, exudate or skin lesion Wounds or surgical sites (see Additional Information) BAL/ bronch wash Sputum (see Additional Information) Gastric lavage (pediatric) Animal and environmental isolates with prior consultation
Minimum Volume Required	Not Applicable
Storage & Preservation of Specimen Prior to Shipping	Keep specimen at room temperature
Transport Medium	Lowenstein-Jensen or Middlebrook 7H10/7H11 agar
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Ship specimen Monday -Thursday overnight to avoid weekend deliveries at room temperature as an etiologic agent.
Methodology	16S Sequencing, MALDI-TOF, Phenotypic Testing
Turnaround Time	28 Days
Interferences & Limitations	None
Additional Information	Isolates from wounds or surgical sites must have documentation that NTM was abundant on primary culture (3+ to 4+) or was the only organism isolated. Isolates from sputum must have documentation that the NTM was from two or more sputum cultures (collected on different days), was the only mycobacterial species present, and have abundant growth on primary culture.
CDC Points of Contact	David Lonsway (404) 639-2825 Dlonsway@cdc.gov Nadege Toney (404) 639-1282 ngc6@cdc.gov

Test Order

Mycobacterium TB Complex - Drug Susceptibility Testing

CDC-10185

Synonym(s)	MTB DST, TB, Tuberculosis
Pre-Approval Needed	**None**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Pure isolate on solid medium or in broth culture
Minimum Volume Required	Not applicable
Storage & Preservation of Specimen Prior to Shipping	No Specific Requirements
Transport Medium	*Mycobacterium tuberculosis* (MTB) Growth Medium
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday - Thursday, overnight to avoid weekend deliveries. Broth should not be shipped frozen.
Methodology	Agar proportion, Pyrazinamide (PZA) by MGIT 960
Turnaround Time	32 Days
Interferences & Limitations	None
Additional Information	None
CDC Points of Contact	Beverly Metchock (404) 639-2455 TBLab@cdc.gov

Test Order

Mycobacterium TB Complex - Identification

CDC-10187

Synonym(s)	TB, Tuberculosis
Pre-Approval Needed	**None**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Pure culture isolate
Minimum Volume Required	Not Applicable
Storage & Preservation of Specimen Prior to Shipping	No Specific Requirements
Transport Medium	*Mycobacterium tuberculosis* (MTB) Growth Medium
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday – Thursday, overnight to avoid weekend deliveries.
Methodology	Genetic based testing
Turnaround Time	14 Days
Interferences & Limitations	None
Additional Information	None
CDC Points of Contact	Beverly Metchock (404) 639-2455 TBLab@cdc.gov

Test Order

Mycobacterium TB Complex - Identification and Drug Susceptibility Testing

CDC-10188

Synonym(s)	TB, Tuberculosis
Pre-Approval Needed	**None**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Pure isolate on solid medium or in broth culture
Minimum Volume Required	Not Applicable
Storage & Preservation of Specimen Prior to Shipping	No Specific Requirements
Transport Medium	*Mycobacterium tuberculosis* (MTB) Growth Medium
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday - Thursday, overnight to avoid weekend deliveries. Broth should not be shipped frozen.
Methodology	Genetic based testing, Pyrazinamide (PZA) by MGIT 960, Agar Proportion
Turnaround Time	32 Days
Interferences & Limitations	None
Additional Information	None
CDC Points of Contact	Beverly Metchock (404) 639-2455 TBLab@cdc.gov

Test Order

Mycobacterium TB Complex - Identification and Pyrazinamide Susceptibility Testing

CDC-10190

Synonym(s)	TB, Tuberculosis
Pre-Approval Needed	**None**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Pure isolate on solid medium or in broth culture
Minimum Volume Required	Not Applicable
Storage & Preservation of Specimen Prior to Shipping	No Specific Requirements
Transport Medium	*Mycobacterium tuberculosis* (MTB) Growth Medium
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday - Thursday, overnight to avoid weekend deliveries. Broth should not be shipped frozen.
Methodology	Pyrazinamide (PZA) by MGIT 960, Genetic based testing
Turnaround Time	32 Days
Interferences & Limitations	None
Additional Information	None
CDC Points of Contact	Beverly Metchock (404) 639-2455 TBLab@cdc.gov

Test Order

Mycobacterium TB Complex - Molecular Detection of Drug Resistance (MDDR)

CDC-10186

Synonym(s)	MDDR, TB, Tuberculosis
Pre-Approval Needed	**Metchock, Beverly, (404) 639-2455, TBLab@cdc.gov** **Driscoll, Jeff, (404) 639-2455, TBLab@cdc.gov**
Supplemental Information Required	**See Supplemental Form**
Supplemental Form	**http://www.cdc.gov/tb/topic/laboratory/MDDRsubmissionform.pdf**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Nucleic Acid Amplification positive (NAA+) sputum sediment or pure culture isolate on solid medium or in broth culture
Minimum Volume Required	0.5 mL (sediment)
Storage & Preservation of Specimen Prior to Shipping	No Specific Requirements
Transport Medium	*Mycobacterium tuberculosis* (MTB) Growth Medium
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday - Thursday, overnight to avoid weekend deliveries. Sediments and broth cultures should not be shipped frozen.
Methodology	Pyrosequencing, Sanger sequencing, Agar Proportion DST, MGIT 960 Pyrazinamide (PZA)
Turnaround Time	3 Days
Interferences & Limitations	None
Additional Information	None
CDC Points of Contact	Beverly Metchock (404) 639-2455 TBLab@cdc.gov Jeff Driscoll (404) 639-2455 TBLab@cdc.gov

Test Order

Mycobacterium TB Complex - Pyrazinamide Susceptibility Testing

CDC-10189

Synonym(s)	PZA DST, TB, Tuberculosis
Pre-Approval Needed	**None**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Pure isolate on solid medium or in broth culture
Minimum Volume Required	Not applicable
Storage & Preservation of Specimen Prior to Shipping	No Specific Requirements
Transport Medium	*Mycobacterium tuberculosis* (MTB) Growth Medium
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday - Thursday, overnight to avoid weekend deliveries. Broth should not be shipped frozen.
Methodology	Pyrazinamide (PZA) by MGIT 960
Turnaround Time	14 Days
Interferences & Limitations	None
Additional Information	None
CDC Points of Contact	Beverly Metchock (404) 639-2455 TBLab@cdc.gov

Test Order

Mycobacterium TB Complex - Special Study

CDC-10191

Synonym(s)	None
Pre-Approval Needed	**Metchock, Beverly, (404) 639-2455, TBLab@cdc.gov**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	To be determined
Minimum Volume Required	To be determined
Storage & Preservation of Specimen Prior to Shipping	To be determined
Transport Medium	To be determined
Specimen Labeling	To be determined
Shipping Instructions which Include Specimen Handling Requirements	To be determined
Methodology	
Turnaround Time	
Interferences & Limitations	To be determined
Additional Information	To be determined
CDC Points of Contact	Beverly Metchock (404) 639-2455 TBLab@cdc.gov

Test Order

Mycobacterium TB Complex (International Only) Identification and Drug Susceptibility Testing

CDC-10352

Synonym(s)	Culture, DST, AST, MTB, MTB complex, TB, MDR TB, ID, Tuberculosis
Pre-Approval Needed	**Alexander, Heather, (404) 639-5331, drz5@cdc.gov** **DeGruy, Kyle, (404) 639-0875, gsz4@cdc.gov**
Supplemental Information Required	**Supplemental form will be provided upon consultation** **Fill out the ILB-100-F08C TB Requisition Form** **CDC Form 0.753:** **Application for Permit to Import or Transport Etiological Agents, Hosts, or Vectors of** **Human Disease. It is a requirement to complete this form.**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Suspected *Mycobacteria tuberculosis* Complex isolates in Middlebrook 7H9 liquid media or MGIT (7H9) broth inoculated with culture isolate
Minimum Volume Required	0.3 mL
Storage & Preservation of Specimen Prior to Shipping	*Mycobacterium tuberculosis* Complex in Sterile 2.0 mL screw cap cryovial with O-ring. Specimen should be kept frozen at -70°C indefinitely, but specimen may be stored at -20°C for three months.
Transport Medium	Middlebrook or MGIT (7H9) broth should be inoculated with a culture isolate of a suspected *Mycobacterium tuberculosis* Complex and transported in a sterile 2.0 mL screw cap cryovial with O-ring.
Specimen Labeling	All primary specimen containers must include 2 unique identifiers at the time of collection. The identifiers must be clearly labeled on each specimen and correspond to information on the requisition form. Surveillance studies and some protocols require 1 unique identifier (the ILB recommends 2 identifiers) de-linked from the patient. Do not include the patient's name or any other personally identifiable information. Results are not reported back to patient.
Shipping Instructions which Include Specimen Handling Requirements	Keep specimen frozen at -70°C or lower by using dry ice. Refer to *Mycobacterium tuberculosis* Isolate Preparation & Shipments on page 7 of International Laboratory Branch Test Directory or contact laboratory prior to submission.
Methodology	Phenotypic and genotypic ID with reflex to drug susceptibility
Turnaround Time	150 Days
Interferences & Limitations	Nonviable isolates sent for phenotypic DST and contaminated or mixed isolates sent for phenotypic DST will interfere with the test. Specimen can be rejected if improperly labeled or unlabeled, insufficient volume for testing, without documentation or with discrepant documentation, and have leaked in transit or otherwise show evidence of contamination.
Additional Information	Turn around time is dependent on batch orders: Batches with less than 100 specimens within 150 days Batches with greater than 100, contact Heather Alexander, drz5@cdc.gov.

	Drug Susceptibility Testing on *Mycobacterium tuberculosis* complex performed for first line drugs streptomycin, isoniazid, rifampicin, ethambutol, and pyrazinamide on the BD BACTEC™MGIT™ 960 system and for isoniazid and rifampicin on molecular line probe assay. Drug Susceptibility Testing on *Mycobacterium tuberculosis* complex performed for second line drugs with the modified method of proportion for streptomycin, isoniazid, rifampicin, ethambutol, rifabutin, PAS, ciprofloxacin, ofloxacin, kanamycin, ethionamide, capreomycin, and amikacin. Genotype MTBDRsl tests second line drugs are ofloxacin, ciprofloxacin, moxifloxacin, amikacin, kanamycin, capreomycin, viomycin and ethambutol.	
CDC Points of Contact	Heather Alexander (404) 639-5331 drz5@cdc.gov Kyle DeGruy (404) 639-0875 gsz4@cdc.gov	Zilma Rey (404) 639-2345 yzr0@cdc.gov

Test Order

Mycobacterium TB Complex (International Only) Special Study

CDC-10353

Synonym(s)	None
Pre-Approval Needed	**Alexander, Heather, (404) 639-5331, drz5@cdc.gov** **DeGruy, Kyle, (404) 639-0875, gsz4@cdc.gov**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	To be determined
Minimum Volume Required	To be determined
Storage & Preservation of Specimen Prior to Shipping	To be determined
Transport Medium	To be determined
Specimen Labeling	All primary specimen containers must include 2 unique identifiers at the time of collection. The identifiers must be clearly labeled on each specimen and correspond to information on the requisition form. Surveillance studies and some protocols require 1 unique identifier (the ILB recommends 2 identifiers) de-linked from the patient. Do not include the patient's name or any other personally identifiable information. Results are not reported back to patient.
Shipping Instructions which Include Specimen Handling Requirements	To be determined
Methodology	
Turnaround Time	
Interferences & Limitations	To be determined
Additional Information	
CDC Points of Contact	Heather Alexander (404) 639-5331 drz5@cdc.gov Kyle DeGruy (404) 639-0875 gsz4@cdc.gov Zilma Rey (404) 639-2345 yzr0@cdc.gov

Test Order

Mycoplasma pneumoniae Molecular Detection

CDC-10155

Synonym(s)	Walking pneumonia, Atypical pneumonia, Community Acquired Pneumoniae (CAP)
Pre-Approval Needed	**None**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Nasopharyngeal (NP) and/or Oropharyngeal (OP) swabs, and any lower respiratory tract specimen including bronchoalveolar lavage (BAL) and sputum; tissue, cerebral spinal fluid , isolates and purified nucleic acid; Others upon consultation with laboratory.
Minimum Volume Required	Contingent upon specimen type. Please call for consultation
Storage & Preservation of Specimen Prior to Shipping	Specimens can be kept refrigerated if shipped in less than 72 hours of collection; otherwise specimen should be kept frozen. Store swabs in universal transport medium.
Transport Medium	Universal transport medium
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday-Thursday overnight to avoid weekend deliveries Refrigerated specimen should be sent on ice packs Frozen specimen should be sent on dry ice
Methodology	Real Time PCR
Turnaround Time	7 Days
Interferences & Limitations	Do not use cotton swabs with wooden shafts. Specimen should be acquired prior to antibiotic treatment. Improper specimen storage and handling may result in inconclusive or inaccurate results.
Additional Information	None
CDC Points of Contact	Jonas Winchell (404) 639-4921 Jwinchell@cdc.gov Maureen Diaz (404) 639-4534 mdiaz1@cdc.gov

Test Order

Mycoplasma species Study

CDC-10156

Synonym(s)	None
Pre-Approval Needed	**Winchell, Jonas, (404) 639-4921, jwinchell@cdc.gov** **Diaz, Maureen, (404) 639-4534, mdiaz1@cdc.gov**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	To be determined
Minimum Volume Required	To be determined
Storage & Preservation of Specimen Prior to Shipping	To be determined
Transport Medium	To be determined
Specimen Labeling	To be determined
Shipping Instructions which Include Specimen Handling Requirements	To be determined
Methodology	
Turnaround Time	
Interferences & Limitations	To be determined
Additional Information	To be determined
CDC Points of Contact	Jonas Winchell (404) 639-4921 jwinchell@cdc.gov Maureen Diaz (404) 639-4534 mdiaz1@cdc.gov

Test Order

Naegleria Molecular Detection

CDC-10482

Synonym(s)	Free-living ameba, parasite
Pre-Approval Needed	**None**
Supplemental Information Required	**Please provide the following information: history of present illness, exposure history, past medical history, treatment history, CSF results, imaging results. If images are available please upload to: http://www.cdc.gov/dpdx**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	For *Naegleria fowleri* molecular detection, CSF is the preferred specimen type. We also accept fresh or frozen tissue for N. fowleri molecular detection. For *Acanthamoeba* and *Balamuthia* molecular detection, tissue is the preferred specimen type; however, these amebae can occasionally be detected in cerebrospinal fluid (CSF).
Minimum Volume Required	1 mL CSF; 0.2 g tissue
Storage & Preservation of Specimen Prior to Shipping	Storage and preservation is specimen specific
Transport Medium	Small piece of tissue should be transported in small amount of 0.5x PBS to prevent dryness.
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition. In addition to two patient identifiers (sex, date of birth, name, etc.), provide specimen type and date of collection.
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday - Thursday, overnight to avoid weekend deliveries. Please contact laboratory prior to shipping any specimen and include unit 53 on the outside of package. Ship specimen at room temperature, not on dry ice, as an etiologic agent, unless the specimen has been previously frozen. Frozen specimens may be shipped in cold with ice packs. Please send the shipment tracking number on the day of shipment by e-mail to the CDC Point of Contacts (see below).
Methodology	Real-Time PCR
Turnaround Time	7 Days
Interferences & Limitations	Formalin-fixed specimens are not suitable for molecular studies as formalin fixation may cause DNA degradation. Fresh or frozen specimens, if available, are preferred over the formalin-fixed specimens.
Additional Information	None
CDC Points of Contact	Jennifer Cope (404) 718-4878 bjt9@cdc.gov Ibne Ali (404) 718-4157 xzn5@cdc.gov

Test Order

NARMS Susceptibility Testing

CDC-10107

Synonym(s)	National Antimicrobial Resistance Monitoring System, NARMS surveillance
Pre-Approval Needed	**None**
Supplemental Information Required	**Submitter must be a NARMS participating laboratory. Specimens accepted according to current National Antimicrobial Resistance Monitoring System (NARMS) sampling scheme. NARMS log sheet or entry into NARMS web interface.**
Supplemental Form	https://wwwn.cdc.gov/NARMS/UserLogin.aspx
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Isolates. Specimens accepted according to NARMS guidelines
Minimum Volume Required	Not Applicable
Storage & Preservation of Specimen Prior to Shipping	No Specific Requirements
Transport Medium	Please refer to guidance for specific organism
Specimen Labeling	State or local public health laboratory number
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday-Thursday, overnight to avoid weekend deliveries. Please refer to guidance for specific organism.
Methodology	Broth Microdilution Antimicrobial Susceptibility (AST), E-Test Susceptibility Testing
Turnaround Time	8 Weeks
Interferences & Limitations	None
Additional Information	The turn around time depends on the nature of subtyping performed; and, results are typically reported directly to the surveillance databases.
CDC Points of Contact	Christina Scheel (404) 639-3126 zsr3@cdc.gov Jason Foster (404) 639-4948 gux8@cdc.gov

Test Order

Neisseria (STD) Identification

CDC-10101

Synonym(s)	*Neisseria*, GC
Pre-Approval Needed	**None**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Genital, pharyngeal, and/or rectal swabs. In addition, bacterial culture or isolate on appropriate culture media
Minimum Volume Required	Not Applicable
Storage & Preservation of Specimen Prior to Shipping	Specimen needs to be stored in a manner that will maintain viability of gonorrhea
Transport Medium	Any acceptable medium for gonorrhea transport
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday – Thursday, overnight to avoid weekend deliveries. Frozen specimen should be shipped on dry ice and refrigerated specimen should be shipped on cold packs, as an etiologic agent.
Methodology	Phenotypic identification
Turnaround Time	1 Week
Interferences & Limitations	Anything that can affect viability of gonorrhea will adversely affect the test results
Additional Information	Please provide information on any antibiotics the patient may have been treated with
CDC Points of Contact	John Papp (404) 639-3785 jwp6@cdc.gov Kevin Pettus (404) 639-4338 kbp9@cdc.gov

Test Order

Neisseria gonorrhoeae Study

CDC-10103

Synonym(s)	None
Pre-Approval Needed	**Papp, John, (404) 639-3785, jwp6@cdc.gov** **Pettus, Kevin, (404) 639-4338, kbp9@cdc.gov**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	To be determined
Minimum Volume Required	To be determined
Storage & Preservation of Specimen Prior to Shipping	To be determined
Transport Medium	To be determined
Specimen Labeling	To be determined
Shipping Instructions which Include Specimen Handling Requirements	To be determined
Methodology	
Turnaround Time	
Interferences & Limitations	To be determined
Additional Information	To be determined
CDC Points of Contact	John Papp (404) 639-3785 jwp6@cdc.gov Kevin Pettus (404) 639-4338 kbp9@cdc.gov

Test Order

Neisseria gonorrhoeae Susceptibility Testing

CDC-10102

Synonym(s)	*Neisseria* AST, GC Susceptibility
Pre-Approval Needed	**None**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Genital, pharyngeal, and/or rectal swabs. In addition, bacterial culture or isolate on appropriate growth media
Minimum Volume Required	Not Applicable
Storage & Preservation of Specimen Prior to Shipping	Specimen needs to be stored in a manner that will maintain viability of gonorrhea
Transport Medium	Any acceptable medium for gonorrhea transport
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday – Thursday, overnight to avoid weekend deliveries. Frozen specimen should be shipped on dry ice and refrigerated specimen should be shipped on cold packs, as an etiologic agent.
Methodology	Agar Plate Dilution, E-test, Disk Diffusion
Turnaround Time	4 Weeks
Interferences & Limitations	Anything that can affect viability of gonorrhea will adversely affect the test results
Additional Information	Please provide information on any antibiotics the patient may have been treated with
CDC Points of Contact	John Papp (404) 639-3785 jwp6@cdc.gov Kevin Pettus (404) 639-4338 kbp9@cdc.gov

Test Order

Neisseria meningitidis Identification and Serogrouping

CDC-10219

Synonym(s)	*N. meningitidis* ID and SASG
Pre-Approval Needed	**None**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Pure culture isolate, frozen stock, primary specimen such as CSF, whole blood, serum, and other sterile site specimen types upon consultation.
Minimum Volume Required	0.25 mL
Storage & Preservation of Specimen Prior to Shipping	Store slants at ambient temperature. Primary specimens and stocks should be frozen.
Transport Medium	Preferred medium include chocolate agar slants or frozen stocks. If possible, for the shipment of 10 or more specimens, please ship frozen stocks.
Specimen Labeling	Tests subject to CLIA regulations require two patient identifiers on the specimen container and the test requisition. Label ABCs/Enhanced Surveillance specimens with the state ID & accession number.
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday-Thursday overnight to avoid weekend deliveries. May ship Friday's with prior approval only. Frozen specimen should be shipped on dry ice
Methodology	Growth, Morphology, Biochemical Testing, Slide Agglutination Serogrouping, Real-time PCR
Turnaround Time	30 Days
Interferences & Limitations	Improperly temperature controlled specimens/isolates can give false negative results.
Additional Information	Turnaround time: 30 days for real-time PCR testing of clinical specimens; 90 days for testing of enhanced surveillance submissions
CDC Points of Contact	Melissa Whaley (404) 639-3920 dbq3@cdc.gov Laurel Jenkins (404) 639-1340 knt9@cdc.gov Meningitis Laboratory (404) 639-1380

Test Order

Neisseria meningitidis Study

CDC-10220

Synonym(s)	None
Pre-Approval Needed	**Wang, Xin, (404) 639-5474, gqe8@cdc.gov** **Briere, Elizabeth, (404) 639-0732, ejc0@cdc.gov**
Supplemental Information Required	**Brief description of study or surveillance program.** **Supplemental Form Required: CDC Meningitis Laboratory: Molecular Typing Request Submission Form (provided upon request by CDC Meningitis Laboratory).**
Supplemental Form	
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Pure culture isolate or frozen stock.
Minimum Volume Required	N/A
Storage & Preservation of Specimen Prior to Shipping	Store slants at ambient temperature. Stocks should be kept frozen.
Transport Medium	Chocolate agar slants or frozen stocks.
Specimen Labeling	Tests subject to CLIA regulations require two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday-Thursday overnight to avoid weekend deliveries. May ship on Fridays with prior approval only.
Methodology	Multilocus Sequence Typing (MLST), Molecular typing of the outer membrane protein genes porB and fetA, Molecular typing of the vaccine candidates porA, nhbA, nadA, and fHbp, Whole Genome Sequencing (WGS), Other testing
Turnaround Time	
Interferences & Limitations	To be determined
Additional Information	To be determined
CDC Points of Contact	Xin Wang (404) 639-5474 gqe8@cdc.gov Melissa Whaley (404) 639-3920 dbq3@cdc.gov

Test Order

Neisseria species (Not GC or *meningococcus*) ID

CDC-10139

Synonym(s)	*Neisseria*, GNDC
Pre-Approval Needed	**None**
Supplemental Information Required	**Please notify laboratory prior to shipment if this is a critical care specimen**
Supplemental Form	**None**
Performed on Specimens From	Human and Food/Environmental/Medical Devices/Biologics
Acceptable Sample/ Specimen Type for Testing	Pure culture isolate on a suitable agar slant medium; Consultation required for other sample/specimen types
Minimum Volume Required	Not Applicable
Storage & Preservation of Specimen Prior to Shipping	Keep specimen refrigerated if unable to ship immediately
Transport Medium	Not Applicable
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Ship specimen Monday-Thursday, overnight to avoid weekend deliveries
Methodology	Primary Culture based on specimen type, MALDI-TOF, 16S sequence based identification
Turnaround Time	3 Weeks
Interferences & Limitations	The 3 week turnaround time applies to all tests unless biochemical and/or phenotypic analysis are required, which could take up to 2 months for test results.
Additional Information	If available, please provide patient history including if the patient has used a catheter and/or if the patient is immunocompromised.
CDC Points of Contact	John McQuiston (404) 639-0270 zje8@cdc.gov Anne Whitney (404) 639-1374 amw0@cdc.gov

Test Order

Nipah Virus Identification

CDC-10354

Synonym(s)	None
Pre-Approval Needed	**Klena, John, (404) 639-0114, irc4@cdc.gov** **Rollin, Pierre, (404) 639-1124, pyr3@cdc.gov**
Supplemental Information Required	**See Supplemental Form**
Supplemental Form	http://www.cdc.gov/ncezid/dhcpp/vspb/pdf/specimen-submission.pdf
Performed on Specimens From	Human and Animal
Acceptable Sample/ Specimen Type for Testing	Frozen tissue, blood and serum
Minimum Volume Required	1 mL
Storage & Preservation of Specimen Prior to Shipping	Specimen must be placed in plastic screw capped vials, frozen to -70°C, and kept frozen until shipment. See link to supplemental submission form for specific information on various specimen types.
Transport Medium	Not Applicable
Specimen Labeling	Patient name, patient ID #, specimen type, date collected
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday-Thursday overnight to avoid weekend deliveries. Specimen should be shipped frozen on dry ice. See supplemental submission forms for further details. Do not ship specimen without prior consultation and approval.
Methodology	Molecular Typing, Polymerase Chain Reaction (PCR)
Turnaround Time	10 Days
Interferences & Limitations	Specimen must remain frozen; warming or freeze thawing reduces sensitivity. Heparin may cause interference with the molecular tests and should be avoided.
Additional Information	Critical specimens will take less than 4 days to turn around. See link to supplemental submission forms for detailed information.
CDC Points of Contact	John Klena (404) 639-0114 irc4@cdc.gov Pierre Rollin (404) 639-1124 pyr3@cdc.gov

Test Order

Nipah Virus Serology

CDC-10355

Synonym(s)	None
Pre-Approval Needed	**Klena, John, (404) 639-0114, irc4@cdc.gov** **Rollin, Pierre, (404) 639-1124, pyr3@cdc.gov**
Supplemental Information Required	**See Supplemental Form**
Supplemental Form	http://www.cdc.gov/ncezid/dhcpp/vspb/pdf/specimen-submission.pdf
Performed on Specimens From	Human and Animal
Acceptable Sample/ Specimen Type for Testing	Blood and serum
Minimum Volume Required	1 mL
Storage & Preservation of Specimen Prior to Shipping	Specimen must be kept cold (at or below 4°C). If possible place specimen in plastic screw capped vials. See link to supplemental submission form for specific information on various specimen types.
Transport Medium	Not Applicable
Specimen Labeling	Patient name, patient ID #, specimen type, date collected
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday-Thursday overnight to avoid weekend deliveries. Specimen should be shipped on cold packs or dry ice if frozen. See supplemental submission forms for further details. Do not ship specimen without prior consultation and approval.
Methodology	ELISA
Turnaround Time	10 Days
Interferences & Limitations	Specimen must remain frozen; warming or freeze thawing reduces sensitivity
Additional Information	Critical specimens will take less than 4 days to turn around. See link to supplemental submission forms for detailed information.
CDC Points of Contact	John Klena (404) 639-0114 irc4@cdc.gov Pierre Rollin (404) 639-1124 pyr3@cdc.gov

Test Order

Nocardia species ID

CDC-10150

Synonym(s)	None
Pre-Approval Needed	**None**
Supplemental Information Required	**Please notify laboratory prior to shipment if this is a critical care specimen**
Supplemental Form	**None**
Performed on Specimens From	Human and Food/Environmental/Medical Devices/Biologics
Acceptable Sample/ Specimen Type for Testing	Pure culture isolate on a suitable agar slant medium; consultation required for other sample/specimen types
Minimum Volume Required	Not Applicable
Storage & Preservation of Specimen Prior to Shipping	Keep specimen refrigerated if unable to ship immediately
Transport Medium	Not Applicable
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Ship specimen Monday-Thursday, overnight to avoid weekend deliveries
Methodology	Primary Culture based on specimen type, MALDI-TOF, 16S sequence based identification
Turnaround Time	3 Weeks
Interferences & Limitations	The 3 week turnaround time applies to all tests unless biochemical and/or phenotypic analysis are required, which could take up to 2 months for test results.
Additional Information	If available, please provide patient history including if the patient has used a catheter and/or if the patient is immunocompromised.
CDC Points of Contact	John McQuiston (404) 639-0270 zje8@cdc.gov Anne Whitney (404) 639-1374 amw0@cdc.gov

Test Order

Nocardia species ID and AST

CDC-10151

Synonym(s)	None
Pre-Approval Needed	**None**
Supplemental Information Required	**Please notify laboratory prior to shipment if this is a critical care specimen**
Supplemental Form	**None**
Performed on Specimens From	Human and Food/Environmental/Medical Devices/Biologics
Acceptable Sample/ Specimen Type for Testing	Pure culture isolate on a suitable agar slant medium; consultation required for other sample/specimen types
Minimum Volume Required	Not Applicable
Storage & Preservation of Specimen Prior to Shipping	Keep specimen refrigerated if unable to ship immediately
Transport Medium	Suitable agar slant medium
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Ship specimen Monday-Thursday, overnight to avoid weekend deliveries
Methodology	Primary Culture based on specimen type, MALDI-TOF, 16S sequence based identification, AST by broth microdilution
Turnaround Time	3 Weeks
Interferences & Limitations	The 3 week turnaround time applies to all tests unless biochemical and/or phenotypic analysis are required, which could take up to 2 months for test results.
Additional Information	If available, please provide patient history including if the patient has used a catheter and/or if the patient is immunocompromised.
CDC Points of Contact	John McQuiston (404) 639-0270 zje8@cdc.gov Anne Whitney (404) 639-1374 amw0@cdc.gov

Test Order

Norovirus Genotyping

CDC-10356

Synonym(s)	Norovirus
Pre-Approval Needed	**Vinje, Jan, (404) 639-3721, ahx8@cdc.gov**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human and Food/Environmental/Medical Devices/Biologics
Acceptable Sample/ Specimen Type for Testing	Stool, environmental swab
Minimum Volume Required	0.25 g or 0.25 mL
Storage & Preservation of Specimen Prior to Shipping	Specimen must be stored at 2°-8°C
Transport Medium	Not Applicable
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Ship specimen Monday -Thursday, overnight to avoid weekend deliveries Refrigerated specimen should be shipped on cold packs
Methodology	Polymerase Chain Reaction (PCR), Sequencing
Turnaround Time	4 Weeks
Interferences & Limitations	None
Additional Information	None
CDC Points of Contact	Jan Vinje (404) 639-3721 ahx8@cdc.gov Leslie Barclay (404) 639-1159 gvm3@cdc.gov

Test Order

Norovirus Molecular Detection

CDC-10357

Synonym(s)	Norovirus
Pre-Approval Needed	**Vinje, Jan, (404) 639-3721, ahx8@cdc.gov**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human and Food/Environmental/Medical Devices/Biologics
Acceptable Sample/ Specimen Type for Testing	Stool, environmental swab
Minimum Volume Required	0.25 g or 0.25 mL
Storage & Preservation of Specimen Prior to Shipping	Specimen should be stored at 2°-8°C
Transport Medium	Not Applicable
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Ship specimen Monday -Thursday, overnight to avoid weekend deliveries Refrigerated specimen should be shipped on cold packs
Methodology	Polymerase Chain Reaction (PCR)
Turnaround Time	2 Weeks
Interferences & Limitations	None
Additional Information	None
CDC Points of Contact	Jan Vinje (404) 639-3721 ahx8@cdc.gov Leslie Barclay (404) 639-1159 gvm3@cdc.gov

Test Order

Norovirus Molecular Detection and Genotyping

CDC-10358

Synonym(s)	Norovirus
Pre-Approval Needed	**Vinje, Jan, (404) 639-3721, ahx8@cdc.gov**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human and Food/Environmental/Medical Devices/Biologics
Acceptable Sample/ Specimen Type for Testing	Stool, environmental swab
Minimum Volume Required	0.25 g or 0.25 mL
Storage & Preservation of Specimen Prior to Shipping	Specimen must be stored at 2°-8°C
Transport Medium	Not Applicable
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Ship specimen Monday -Thursday, overnight to avoid weekend deliveries Refrigerated specimen should be shipped on cold packs
Methodology	Polymerase Chain Reaction (PCR), Sequencing
Turnaround Time	4 Weeks
Interferences & Limitations	None
Additional Information	None
CDC Points of Contact	Jan Vinje (404) 639-3721 ahx8@cdc.gov Leslie Barclay (404) 639-1159 gvm3@cdc.gov

Test Order

Orientia Molecular Detection

CDC-10359

Synonym(s)	Scrub Typhus
Pre-Approval Needed	**None**
Supplemental Information Required	**Prior approval is required if the following information is not provided: - Suspected Agent - Travel and exposure history (including animals, arthropods, etc.) - Date of illness onset (and time if available) - Specimen type (e.g., serum, whole blood, tissue, etc.) - Test requested - Brief clinical summary (including details of antibiotic therapy and dates) and pertinent clinical findings**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Acute samples only, anticoagulated whole blood collected in Ethylenediaminetetraacetic acid (EDTA) treated tubes preferred; serum; fresh tissue biopsy
Minimum Volume Required	1.0 mL
Storage & Preservation of Specimen Prior to Shipping	Ideally keep specimen at a refrigerated temperature not frozen. If previously frozen, then keep specimen frozen.
Transport Medium	Ethylenediaminetetraacetic acid (EDTA) blood tubes for blood; tissue in a sample collection tube
Specimen Labeling	Patient name and date of birth
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday - Thursday, overnight to avoid weekend deliveries. Specimen should be shipped refrigerated on cold packs.
Methodology	Real Time Polymerase Chain Reaction (PCR), Polymerase Chain Reaction (PCR), Sequencing
Turnaround Time	6 Weeks
Interferences & Limitations	Hemolysis in whole blood specimen will interfere with results. Multiple freeze thaw cycles and sample storage above refrigerated temperatures will interfere with proper nucleic acid extraction. If a specimen is drawn at convalescence it will reduce the chance of the target organism being present in blood. Avoid collection of blood specimen in heparin tubes.
Additional Information	The Rickettsial Zoonoses Branch Reference Diagnostic Laboratory aids State Laboratories in diagnosis of difficult samples/cases or if specialized tests are needed. Routine diagnostic samples should be sent to your State Laboratory or a commercial laboratory.
CDC Points of Contact	Cecilia Kato (404) 639-1075 ckato@cdc.gov Christopher Paddock (404) 639-1309 cdp9@cdc.gov

Test Order

Orientia Serology

CDC-10360

Synonym(s)	Scrub Typhus
Pre-Approval Needed	**None**
Supplemental Information Required	**Prior approval is required if the following information is not provided: - Suspected Agent - Travel and exposure history (including animals, arthropods, etc.) - Date of illness onset (and time if available) - Specimen type (e.g., serum, whole blood, tissue, etc.) - Test requested - Brief clinical summary (including details of antibiotic therapy and dates) and pertinent clinical findings**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Serum -acute (during active stage of illness) -convalescent (2-4 weeks after acute stage)
Minimum Volume Required	1.0 mL
Storage & Preservation of Specimen Prior to Shipping	Ideally keep specimen at a refrigerated temperature not frozen. If previously frozen, then keep specimen frozen.
Transport Medium	Not Applicable
Specimen Labeling	Patient name and date of birth
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday - Thursday, overnight to avoid weekend deliveries. Specimen should be shipped refrigerated on cold packs.
Methodology	Indirect Fluorescence Assay (IFA)
Turnaround Time	6 Weeks
Interferences & Limitations	Multiple freeze thaw cycles may interfere with antigen binding. Use sterile technique to avoid contamination of sample as this may compromise the sample and interfere with the ability to get accurate results. Acute and convalescent serum is needed for accurate diagnosis and if unable to collect both please contact laboratory prior to shipping.
Additional Information	The Rickettsial Zoonoses Branch Reference Diagnostic Laboratory aids State Laboratories in diagnosis of difficult samples/cases or if specialized tests are needed. Routine diagnostic samples should be sent to your State Laboratory or a commercial lab.
CDC Points of Contact	Cecilia Kato (404) 639-1075 ckato@cdc.gov Christopher Paddock (404) 639-1309 cdp9@cdc.gov

Test Order

Orientia Special Study

CDC-10500

Synonym(s)	Scrub typhus
Pre-Approval Needed	**Kato, Cecilia, (404) 639-0152, ckato@cdc.gov** **Paddock, Christopher, (404) 639-1309, cdp9@cdc.gov**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human, Animal, and Food/Environmental/Medical Devices/Biologics
Acceptable Sample/ Specimen Type for Testing	To be determined
Minimum Volume Required	To be determined
Storage & Preservation of Specimen Prior to Shipping	To be determined
Transport Medium	To be determined
Specimen Labeling	To be determined
Shipping Instructions which Include Specimen Handling Requirements	To be determined
Methodology	Molecular detection, Serology, Culture, Immunohistochemistry (IHC), Other
Turnaround Time	
Interferences & Limitations	To be determined
Additional Information	To be determined
CDC Points of Contact	Cecilia Kato (404) 639-0152 ckato@cdc.gov Christopher Paddock (404) 639-1309 cdp9@cdc.gov

Test Order

Paragonimiasis Serology

CDC-10465

Synonym(s)	*Paragonimus westermani*; *Paragonimus kellicotti,* parasite
Pre-Approval Needed	**None**
Supplemental Information Required	**Exposure and travel history, include other relevant risk factors; clinical symptoms, treatment and previous test results.**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Serum and Plasma
Minimum Volume Required	0.5 mL
Storage & Preservation of Specimen Prior to Shipping	No specific requirements
Transport Medium	Not Applicable
Specimen Labeling	Test subject to CLIA regulations require two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday – Thursday, overnight to avoid weekend deliveries. Ship specimen at room temperature, not on dry ice, as an etiologic agent.
Methodology	Immunoblot, Western Blot, Antibody Detection
Turnaround Time	18 Days
Interferences & Limitations	Substances known to interfere with immunoassays include: bilirubin, lipids, and hemoglobin
Additional Information	None
CDC Points of Contact	Isabel McAuliffe (404) 718-4100 ibm4@cdc.gov DPDx (404) 718-4120 dpdx@cdc.gov

Test Order

Parasite - Morphologic Identification (O+P)

CDC-10234

Synonym(s)	Parasitology, Malaria parasite identification, Blood parasite, ova and parasite
Pre-Approval Needed	**None**
Supplemental Information Required	**Supplemental form not needed**
Supplemental Form	**None**
Performed on Specimens From	Human, Animal, and Food/Environmental/Medical Devices/Biologics
Acceptable Sample/ Specimen Type for Testing	Stool specimens, blood, and tissue. Additional acceptable specimens are listed on the supplemental link.
Minimum Volume Required	Not Applicable
Storage & Preservation of Specimen Prior to Shipping	Storage and preservation is specimen specific, see supplemental link
Transport Medium	Not Applicable
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday - Thursday, overnight to avoid weekend deliveries Shipping is specimen specific see supplemental link
Methodology	Microscopy
Turnaround Time	7 Days
Interferences & Limitations	None
Additional Information	None
CDC Points of Contact	Blaine Mathison (404) 718-4103 gqa4@cdc.gov Henry Bishop (404) 718-4102 hsb2@cdc.gov

Test Order

Parasite - Special Study

CDC-10237

Synonym(s)	None
Pre-Approval Needed	**McAuliffe, Isabel, (404) 718-4100, ibm4@cdc.gov** **Qvarnstrom, Yvonne, (404) 718-4123, bvp2@cdc.gov**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human, Animal, and Food/Environmental/Medical Devices/Biologics
Acceptable Sample/ Specimen Type for Testing	To be determined
Minimum Volume Required	To be determined
Storage & Preservation of Specimen Prior to Shipping	To be determined
Transport Medium	To be determined
Specimen Labeling	To be determined
Shipping Instructions which Include Specimen Handling Requirements	To be determined
Methodology	
Turnaround Time	
Interferences & Limitations	To be determined
Additional Information	To be determined
CDC Points of Contact	Isabel McAuliffe (404) 718-4100 ibm4@cdc.gov Yvonne Qvarnstrom (404) 718-4123 bvp2@cdc.gov

Test Order

Parechovirus Detection and Identification

CDC-10362

Synonym(s)	Human parechovirus, HPEV, Echovirus 22, Echovirus 23, Ljungan virus, parechovirus
Pre-Approval Needed	**None**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human, Animal, and Food/Environmental/Medical Devices/Biologics
Acceptable Sample/ Specimen Type for Testing	Specimens include stool, serum, throat or nasal swab, cerebrospinal fluid (CSF), vesicle fluid or lesion, rectal, or nasopharyngeal (NP)/oropharyngeal (OP) swabs. Fresh or frozen tissues are preferred to Formalin fixed tissues, but will accept both.
Minimum Volume Required	Not Applicable
Storage & Preservation of Specimen Prior to Shipping	Vesicle fluid, rectal, or nasopharyngeal (NP)/oropharyngeal (OP) swabs: Use only sterile Dacron or rayon swabs with plastic shafts or if available, flocked swabs. Do NOT use calcium alginate swabs or swabs with wooden sticks, as they may contain substances that inactivate some viruses and inhibit some molecular assays. Place the swab immediately into a sterile viral containing 2mL of viral transport media without antibiotics, if possible. Stool: Collect in a clean, dry, leak-proof container. Serum: For each serum specimen, collect whole blood into a serum separator tube (marble or tiger top SST). Allow to clot at room temperature for a minimum of 30 minutes and centrifuge.
Transport Medium	Viral transport medium. If you do not have viral transport media, place the swab into a sterile vial without viral transport media. Aseptically, cut or break applicator sticks off near the tip to permit tightening of the cap. For NP/OP swabs, both swabs can be placed in the same vial, if desired.
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday - Thursday, overnight to avoid weekend deliveries. Frozen specimen should be shipped on dry ice and refrigerated specimen should be shipped on cold packs, as an etiologic agent. Include the full name, title, complete mailing address, email address, telephone, and fax number of the submitter. This will be the person to whom the final report will be mailed to.
Methodology	Molecular techniques
Turnaround Time	10 Days
Interferences & Limitations	Collecting specimens during the first week of illness is ideal although the virus can be shed in stool for several weeks. A specimen set collected in the second week of illness should include a rectal swab or stool sample.
Additional Information	Minimum volume for cell culture is 0.5-1 mL, for CSF is 60 uL, and for fresh frozen tissues is 2 mm^2. Stool: Stool may be collected within 14 days of symptom onset. Collect 10-20 g of stool in a clean, dry, leak-proof container.

	Serum: For each serum specimen, collect (adults and children >6kg: 5 mL, children <6 kg: 2 mL) of whole blood into a serum separator tube (marble or tiger top SST). A minimum of 1 mL of whole blood is needed for testing of pediatric patients. Allow to clot at room temperature for a minimum of 30 minutes and centrifuge.
CDC Points of Contact	Alan Nix (404) 639-1689 wbn0@cdc.gov Steve Oberste (404) 639-5497 mbo2@cdc.gov

Test Order

Parvovirus B19 Molecular Detection

CDC-10363

Synonym(s)	Fifth Disease
Pre-Approval Needed	**Erdman, Dean, (404) 639-3727, dde1@cdc.gov**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Serum, blood, plasma, and amniotic fluid
Minimum Volume Required	0.25 mL
Storage & Preservation of Specimen Prior to Shipping	Refrigerate all specimens promptly after collection. If specimens can be shipped to CDC within 72 hours of collection, they should be kept refrigerated at 4°C and shipped on gel ice-packs. If specimens must be held for >72 hours, they should be promptly frozen at -70°C and shipped on dry ice. Liquid specimens should be aliquoted into properly labeled, leak-proof, unbreakable screw cap vials. Samples should be collected and processed in a manner that prevents cross-contamination between specimens, including changing gloves between specimens.
Transport Medium	Not Applicable
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Ship specimen Monday -Thursday, overnight to avoid weekend deliveries Refrigerated specimen should be shipped on cold packs Frozen specimen should be shipped on dry ice
Methodology	Polymerase Chain Reaction (PCR)
Turnaround Time	3 Weeks
Interferences & Limitations	Do not use wooden-shafted swabs or calcium alginate swabs
Additional Information	None
CDC Points of Contact	Dean Erdman (404) 639-3727 dde1@cdc.gov Shifaq Kamili (404) 639-2799 sgk5@cdc.gov

Test Order

Parvovirus B19 Serology

CDC-10364

Synonym(s)	Fifth Disease
Pre-Approval Needed	**Erdman, Dean, (404) 639-3727, dde1@cdc.gov**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Serum
Minimum Volume Required	0.25 mL
Storage & Preservation of Specimen Prior to Shipping	Refrigerate all specimens promptly after collection. If specimens can be shipped to CDC within 72 hours of collection, they should be kept refrigerated at 4°C and shipped on gel ice-packs. If specimens must be held for >72 hours, they should be promptly frozen at -70°C and shipped on dry ice. Liquid specimens should be aliquoted into properly labeled, leak-proof, unbreakable screw cap vials. Samples should be collected and processed in a manner that prevents cross-contamination between specimens, including changing gloves between specimens.
Transport Medium	Not Applicable
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Ship specimen Monday -Thursday, overnight to avoid weekend deliveries Frozen specimen should be shipped on dry ice Refrigerated specimen should be shipped on cold packs
Methodology	IgG and IgM enzyme immunoassay
Turnaround Time	3 Weeks
Interferences & Limitations	Do not collect in heparin tubes
Additional Information	None
CDC Points of Contact	Dean Erdman (404) 639-3727 dde1@cdc.gov Shifaq Kamili (404) 639-2799 sgk5@cdc.gov

Test Order

Pathologic Evaluation of CNS Infections

CDC-10365

Synonym(s)	Central Nervous Tissue, autopsy, biopsy, formalin fixed tissues, fresh and frozen tissues, tissue culture, pathology, paraffin blocks, histopathology, electron microscopy, immunohistochemistry, PCR
Pre-Approval Needed	**Pathology Branch, , (404) 639-3132, pathology@cdc.gov**
Supplemental Information Required	**Please include a cover letter outlining a brief clinical history, including relevant demographic/epidemiologic information, a copy of (a) the autopsy report (preliminary or final) or (b) surgical pathology/report, copies of pertinent results (microbiology, hematology, serology, culture, and/or biochemical) and images (clinical and/or gross autopsy photos).** **Please include a key to the identification of the blocks**
Supplemental Form	http://www.cdc.gov/ncezid/dhcpp/idpb/index.html
Performed on Specimens From	Human and Animal
Acceptable Sample/ Specimen Type for Testing	The preferred specimens include paraffin blocks of involved CNS tissue, or representative tissues (See Additional Information section) in formalin. Fresh-frozen tissue may also be submitted.
Minimum Volume Required	Not Applicable
Storage & Preservation of Specimen Prior to Shipping	Specifics will be determined upon consultation. In general, paraffin-embedded tissue blocks should be submitted where tissues have been in formalin for a significant time, wet tissue should be in 10% neutral buffered formalin, unstained slides (not optimal) should be cut at 3-5 microns (10 slides per block), and Electron Microscopy specimen should be fixed in glutaraldehyde and held in phosphate buffer.
Transport Medium	Electron Microscopy specimen containers should be filled to the top with phosphate buffer and sent on wet ice. Do not freeze.
Specimen Labeling	Specimen (block) key, denoting tissue type is extremely helpful and will expedite results
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday-Thursday, overnight. If specimen is frozen, send separately on dry ice. If specimen is refrigerated, ship on frozen gel packs. For urgent cases, please contact laboratory immediately. During hot weather, to avoid melting of paraffin blocks, they should be packed on ice packs. Do not pack wet tissue and frozen tissue together, please package separately to avoid freezing and damage of wet tissue. Please include the full name, title, complete mailing address, e-mail address, and telephone and fax numbers of the submitter. This will be to whom the final pathology report is addressed.
Methodology	Histopathology, H&E's and Special Stains, Immunohistochemistry (IHC), Polymerase Chain Reaction (PCR) and Sequencing, Electron Microscopy (EM), Tissue Culture, Nucleic Acid Extraction
Turnaround Time	2 Weeks
Interferences & Limitations	Prolonged fixation (>2 weeks) may interfere with some immunohistochemical and molecular diagnostic assays
Additional Information	Preliminary results are usually reported within 1 week, but may take up to 2 weeks depending on the nature of the case. Images are especially important in evaluation and guiding of testing. Possible tissue sites include cerebralcortex (frontal, parietal, temporal, and

	occipital), brain stem (midbrain, pons, medulla) and spinal cord, cerebellum, basal ganglia, thalamus, hypothalamus, and hippocampus, and meninges.
CDC Points of Contact	Pathology Branch (404) 639-3132 pathology@cdc.gov

Test Order

Pathologic Evaluation of Influenza and Other Viral Infections

CDC-10366

Synonym(s)	Autopsy, biopsy, formalin fixed tissues, fresh and frozen tissues, tissue culture, pathology, paraffin blocks, histopathology, electron microscopy, immunohistochemistry, PCR
Pre-Approval Needed	**Pathology Branch, , (404) 639-3132, pathology@cdc.gov**
Supplemental Information Required	**Please include a cover letter outlining a brief clinical history, including relevant demographic/epidemiologic information, a copy of (a) the autopsy report (preliminary or final) or (b) surgical pathology/report, copies of pertinent results (microbiology, hematology, serology, culture, and/or biochemical) and images (clinical and/or gross autopsy photos).** **Please include a key to the identification of the blocks**
Supplemental Form	http://www.cdc.gov/ncezid/dhcpp/idpb/index.html
Performed on Specimens From	Human and Animal
Acceptable Sample/ Specimen Type for Testing	Representative blocks or fixed tissue specimen of upper and lower respiratory and tissue showing pathology. Formalin-fixed paraffin embedded blocks made from BAL can also be submitted for IHC staining. Fresh-frozen tissue may also be submitted.
Minimum Volume Required	Not Applicable
Storage & Preservation of Specimen Prior to Shipping	Specifics will be determined upon consultation. In general, paraffin-embedded tissue blocks should be submitted where tissues have been in formalin for a significant time, wet tissue should be in 10% neutral buffered formalin, unstained slides (not optimal), should be cut at 3-5 microns (10 slides per block), and Electron Microscopy specimen should be fixed in glutaraldehyde and held in phosphate buffer.
Transport Medium	Electron Microscopy specimen containers should be filled to the top with phosphate buffer and sent on wet ice. Do not freeze.
Specimen Labeling	Specimen (block) key, denoting tissue type is extremely helpful and will expedite results.
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday-Thursday, overnight. If specimen is frozen, send separately on dry ice. If specimen is refrigerated, ship on frozen gel packs. For urgent cases, please contact laboratory immediately. During hot weather, to avoid melting of paraffin blocks, they should be packed on ice packs. Do not pack wet tissue and frozen tissue together, please package separately to avoid freezing and damage of wet tissue. Please include the full name, title, complete mailing address, e-mail address, and telephone and fax numbers of the submitter. This will be to whom the final pathology report is addressed.
Methodology	Histopathology, H&E's and Special Stains, Immunohistochemistry (IHC), Polymerase Chain Reaction (PCR) and Sequencing, Electron Microscopy (EM), Tissue Culture, Nucleic Acid Extraction for transfer to SME
Turnaround Time	2 Weeks
Interferences & Limitations	Prolonged fixation (>2 weeks) may interfere with some immunohistochemical and molecular diagnostic assays
Additional Information	Preliminary results are usually reported within 1 week, but may take up to 2 weeks depending on the nature of the case. Images are especially important in evaluation and guiding of testing.

	The recommended pulmonary sites include central (hilar) lung with segmental bronchi, right and left primary bronchi, trachea (proximal and distal), representative pulmonary parenchyma from right and left lung, for patients with suspected myocarditis, encephalitis, or rhabdomyolysis, specimens should include myocardium (right and left ventricle), CNS (cerebral cortex, basal ganglia, pons, medulla, and cerebellum, and skeletal muscle, respectively, and specimens should be included from any other organ showing significant gross or microscopic pathology.
CDC Points of Contact	Pathology Branch (404) 639-3132 pathology@cdc.gov

Test Order

Pathologic Evaluation of Myocarditis

CDC-10367

Synonym(s)	Autopsy, biopsy, formalin fixed tissues, fresh and frozen tissues, tissue culture, pathology, paraffin blocks, histopathology, electron microscopy, immunohistochemistry, PCR
Pre-Approval Needed	**Pathology Branch, , (404) 639-3132, pathology@cdc.gov**
Supplemental Information Required	**Please include a cover letter outlining a brief clinical history, including relevant demographic/epidemiologic information, a copy of (a) the autopsy report (preliminary or final) or (b) surgical pathology/report, copies of pertinent results (microbiology, hematology, serology, culture, and/or biochemical) and images (clinical and/or gross autopsy photos).** **Please include a key to the identification of the blocks**
Supplemental Form	http://www.cdc.gov/ncezid/dhcpp/idpb/index.html
Performed on Specimens From	Human and Animal
Acceptable Sample/ Specimen Type for Testing	Minimum of 2 paraffin blocks of involved heart tissue, or representative tissues in formalin (i.e. wet tissue). Fresh-frozen tissue may also be submitted for culture and molecular-based assays.
Minimum Volume Required	Not Applicable
Storage & Preservation of Specimen Prior to Shipping	Specifics will be determined upon consultation. In general, paraffin-embedded tissue blocks should be submitted where tissues have been in formalin for a significant time, wet tissue should be in 10% neutral buffered formalin, unstained slides (not optimal), should be cut at 3-5 microns (10 slides per block), and Electron Microscopy specimen should be fixed in glutaraldehyde and held in phosphate buffer.
Transport Medium	Electron Microscopy specimen containers should be filled to the top with phosphate buffer and sent on wet ice. Do not freeze.
Specimen Labeling	Specimen (block) key, denoting tissue type is extremely helpful and will expedite results
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday-Thursday, overnight. If specimen is frozen, send separately on dry ice. If specimen is refrigerated, ship on frozen gel packs. For urgent cases, please contact laboratory immediately. During hot weather, to avoid melting of paraffin blocks, they should be packed on ice packs. Do not pack wet tissue and frozen tissue together, please package separately to avoid freezing and damage of wet tissue. Please include the full name, title, complete mailing address, e-mail address, and telephone and fax numbers of the submitter. This will be to whom the final pathology report is addressed.
Methodology	Histopathology, H&E's and Special Stains, Immunohistochemistry (IHC), Polymerase Chain Reaction (PCR) and Sequencing, Electron Microscopy (EM), Tissue Culture, Nucleic Acid Extraction for transfer to SME
Turnaround Time	2 Weeks
Interferences & Limitations	Prolonged fixation (>2 weeks) may interfere with some immunohistochemical and molecular diagnostic assays
Additional Information	Preliminary results are usually reported within 1 week, but may take up to 2 weeks depending on the nature of the case. Images are especially important in evaluation and guiding of testing. Specific guidelines for these samples include multiple fragments of cardiac

	tissue representing each anatomic portion of the heart involved by inflammatory infiltrates (e.g., ventricles, epicardium, pericardium), and if myocarditis is identified in the context of a systemic illness, representative tissues should be included from ay other organ showing significant microscopic pathology.
CDC Points of Contact	Pathology Branch (404) 639-3132 pathology@cdc.gov

Test Order

Pathologic Evaluation of Pneumonia and Other Respiratory Infections

CDC-10368

Synonym(s)	Autopsy, biopsy, formalin fixed tissues, fresh and frozen tissues, tissue culture, pathology, paraffin blocks, histopathology, electron microscopy, immunohistochemistry, PCR
Pre-Approval Needed	**Pathology Branch, , (404) 639-3132, pathology@cdc.gov**
Supplemental Information Required	**Please include a cover letter outlining a brief clinical history, including relevant demographic/epidemiologic information, a copy of (a) the autopsy report (preliminary or final) or (b) surgical pathology/report, copies of pertinent results (microbiology, hematology, serology, culture, and/or biochemical) and images (clinical and/or gross autopsy photos).** **Please include a key to the identification of the blocks**
Supplemental Form	http://www.cdc.gov/ncezid/dhcpp/idpb/index.html
Performed on Specimens From	Human and Animal
Acceptable Sample/ Specimen Type for Testing	Representative (minimum of 8) blocks and fixed tissue representing different pulmonary sites and other organs showing pathology. Formalin-fixed paraffin embedded blocks made from BAL can also be submitted. Fresh-frozen tissue may be submitted.
Minimum Volume Required	Not Applicable
Storage & Preservation of Specimen Prior to Shipping	Specifics will be determined upon consultation. In general, paraffin-embedded tissue blocks should be submitted where tissues have been in formalin for a significant time, wet tissue should be in 10% neutral buffered formalin, unstained slides (not optimal), should be cut at 3-5 microns (10 slides per block), and Electron Microscopy specimen should be fixed in glutaraldehyde and held in phosphate buffer.
Transport Medium	Electron Microscopy specimen containers should be filled to the top with phosphate buffer and sent on wet ice. Do not freeze.
Specimen Labeling	Specimen (block) key, denoting tissue type is extremely helpful and will expedite results
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday-Thursday, overnight. If specimen is frozen, send separately on dry ice. If specimen is refrigerated, ship on frozen gel packs. For urgent cases, please contact laboratory immediately. During hot weather, to avoid melting of paraffin blocks, they should be packed on ice packs. Do not pack wet tissue and frozen tissue together, please package separately to avoid freezing and damage of wet tissue. Please include the full name, title, complete mailing address, e-mail address, and telephone and fax numbers of the submitter. This will be to whom the final pathology report is addressed.
Methodology	Histopathology, H&E's and Special Stains, Immunohistochemistry (IHC), Polymerase Chain Reaction (PCR) and Sequencing, Electron Microscopy (EM), Tissue Culture, Nucleic Acid Extraction for transfer to SME
Turnaround Time	2 Weeks
Interferences & Limitations	Prolonged fixation (>2 weeks) may interfere with some immunohistochemical and molecular diagnostic assays
Additional Information	Preliminary results are usually reported within 1 week, but may take up to 2 weeks depending on the nature of the case. Images are especially important in evaluation and guiding of testing.

	The preferred pulmonary sites include hilar lung with segmental bronchi, primary bronchi, and trachea, peripheral pulmonary parenchyma from both lungs and specimens should be included from any other organ showing significant gross or microscopic pathology.
CDC Points of Contact	Pathology Branch (404) 639-3132 pathology@cdc.gov

Test Order

Pathologic Evaluation of Rash and Eschar-Associated Illness

CDC-10369

Synonym(s)	Autopsy, biopsy, formalin fixed tissues, fresh and frozen tissues, tissue culture, pathology, paraffin blocks, histopathology, electron microscopy, immunohistochemistry, PCR
Pre-Approval Needed	**Pathology Branch, , (404) 639-3132, pathology@cdc.gov**
Supplemental Information Required	**Please include a cover letter outlining a brief clinical history, including relevant demographic/epidemiologic information, a copy of (a) the autopsy report (preliminary or final) or (b) surgical pathology/report, copies of pertinent results (microbiology, hematology, serology, culture, and/or biochemical) and images (clinical and/or gross autopsy photos).** **Please include a key to the identification of the blocks**
Supplemental Form	http://www.cdc.gov/ncezid/dhcpp/idpb/index.html
Performed on Specimens From	Human and Animal
Acceptable Sample/ Specimen Type for Testing	Representative (minimum 1) paraffin block of the cutaneous lesion, or an appropriate biopsy specimen in formalin (i.e. wet tissue). Fresh-frozen tissue may also be submitted for culture and molecular based assays.
Minimum Volume Required	Not Applicable
Storage & Preservation of Specimen Prior to Shipping	Specifics will be determined upon consultation. In general, paraffin-embedded tissue blocks should be submitted where tissues have been in formalin for a significant time, wet tissue should be in 10% neutral buffered formalin, unstained slides (not optimal), should be cut at 3-5 microns (10 slides per block), and Electron Microscopy specimen should be fixed in glutaraldehyde and held in phosphate buffer.
Transport Medium	Electron Microscopy specimen containers should be filled to the top with phosphate buffer and sent on wet ice. Do not freeze.
Specimen Labeling	Specimen (block) key, denoting tissue type is extremely helpful and will expedite results
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday-Thursday, overnight. If specimen is frozen, send separately on dry ice. If specimen is refrigerated, ship on frozen gel packs. For urgent cases, please contact laboratory immediately. During hot weather, to avoid melting of paraffin blocks, they should be packed on ice packs. Do not pack wet tissue and frozen tissue together, please package separately to avoid freezing and damage of wet tissue. Please include the full name, title, complete mailing address, e-mail address, and telephone and fax numbers of the submitter. This will be to whom the final pathology report is addressed.
Methodology	Histopathology, H&E's and Special Stains, Immunohistochemistry (IHC), Polymerase Chain Reaction (PCR) and Sequencing, Electron Microscopy (EM), Tissue Culture, Nucleic Acid Extraction for transfer to SME
Turnaround Time	2 Weeks
Interferences & Limitations	Prolonged fixation (>2 weeks) may interfere with some immunohistochemical and molecular diagnostic assays
Additional Information	Preliminary results are usually reported within 1 week, but may take up to 2 weeks depending on the nature of the case. Images are especially important in evaluation and guiding of testing. Specific guidelines for the samples include minimally, a 3 mm punch, deep

	shave, or excisional biopsy specimen from the eschar or a representative rash lesion. If multiple stages or forms of cutaneous lesions are identified, multiple biopsies should be submitted, and if a rash is identified in the context of a systemic fatal illness, representative tissues should be included from any other organ showing significant gross or microscopic pathology.
CDC Points of Contact	Pathology Branch (404) 639-3132 pathology@cdc.gov

Test Order

Pathologic Evaluation of Select Hepatides

CDC-10370

Synonym(s)	pathologic evaluation of tissue, autopsy, biopsy, formalin fixed tissues, fresh and frozen tissues, tissue culture, pathology, paraffin blocks, histopathology, electron microscopy, immunohistochemistry, PCR
Pre-Approval Needed	**Pathology Branch, , (404) 639-3132, pathology@cdc.gov**
Supplemental Information Required	**Please include a cover letter outlining a brief clinical history, including relevant demographic/epidemiologic information, a copy of (a) the autopsy report (preliminary or final) or (b) surgical pathology/report, copies of pertinent results (microbiology, hematology, serology, culture, and/or biochemical) and images (clinical and/or gross autopsy photos).** **Please include a key to the identification of the blocks**
Supplemental Form	http://www.cdc.gov/ncezid/dhcpp/idpb/index.html
Performed on Specimens From	Human and Animal
Acceptable Sample/ Specimen Type for Testing	Representative (minimum of 2) paraffin blocks of involved hepatic tissue and representative tissues in formalin. Fresh-frozen tissue may also be submitted and epoxy-embedded tissues. Other major organs as applicable and others upon consultation.
Minimum Volume Required	Not Applicable
Storage & Preservation of Specimen Prior to Shipping	Specifics will be determined upon consultation. In general, paraffin-embedded tissue blocks should be submitted where tissues have been in formalin for a significant time, wet tissue should be in 10% neutral buffered formalin, unstained slides (not optimal), should be cut at 3-5 microns (10 slides per block), and Electron Microscopy specimen should be fixed in glutaraldehyde and held in phosphate buffer.
Transport Medium	Electron Microscopy specimen containers should be filled to the top with phosphate buffer and sent on wet ice. Do not freeze.
Specimen Labeling	Specimen (block) key, denoting tissue type is extremely helpful and will expedite results
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday-Thursday, overnight. If specimen are frozen, send separately on dry ice. If specimen are refrigerated, ship on frozen gel packs. For urgent cases, please contact laboratory immediately. During hot weather, to avoid melting of paraffin blocks, they should be packed on ice packs. Do not pack wet tissue and frozen tissue together, please package separately to avoid freezing and damage of wet tissue. Please include the full name, title, complete mailing address, e-mail address, and telephone and fax numbers of the submitter. This will be to whom the final pathology report is addressed.
Methodology	Histopathology, H&E's and Special Stains, Immunohistochemistry (IHC), Polymerase Chain Reaction (PCR) and Sequencing, Electron Microscopy (EM), Tissue Culture, Nucleic Acid Extraction for transfer to SME
Turnaround Time	2 Weeks
Interferences & Limitations	Prolonged fixation (>2 weeks) may interfere with some immunohistochemical and molecular diagnostic assays
Additional Information	Preliminary results are usually reported within 1 week, but may take up to 2 weeks depending on the nature of the case. Images are especially important in evaluation and guiding of testing.

	Specific guidelines for these samples include multiple fragments of liver tissue involved by inflammatory infiltrates and if hepatitis is identified in the context of systemic illness, representative tissues should be included from any other organ showing significant microscopic pathology.
CDC Points of Contact	Pathology Branch (404) 639-3132 pathology@cdc.gov

Test Order

Pathologic Evaluation of Sudden Unexplained Infant Death with Suspicion of Infection

CDC-10371

Synonym(s)	Autopsy, biopsy, formalin fixed tissues, fresh and frozen tissues, tissue culture, pathology, paraffin blocks, histopathology, electron microscopy, immunohistochemistry, PCR
Pre-Approval Needed	**Pathology Branch, , (404) 639-3132, pathology@cdc.gov**
Supplemental Information Required	**Please include a cover letter outlining a brief clinical history, including relevant demographic/epidemiologic information, a copy of (a) the autopsy report (preliminary or final) or (b) surgical pathology/report, copies of pertinent results (microbiology, hematology, serology, culture, and/or biochemical) and images (clinical and/or gross autopsy photos).** **Please include a key to the identification of the blocks**
Supplemental Form	http://www.cdc.gov/ncezid/dhcpp/idpb/index.html
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Tissues should be collected in accordance with the National Association of Medical Examiners (NAME) protocol for a complete SUID autopsy. Tissue from the organ(s) demonstrating pathology and major organs without apparent histopathologic changes.
Minimum Volume Required	Not Applicable
Storage & Preservation of Specimen Prior to Shipping	Specifics will be determined upon consultation. In general, paraffin-embedded tissue blocks should be submitted where tissues have been in formalin for a significant time, wet tissue should be in 10% neutral buffered formalin, unstained slides (not optimal), should be cut at 3-5 microns (10 slides per block), and Electron Microscopy specimen should be fixed in glutaraldehyde and held in phosphate buffer.
Transport Medium	Electron Microscopy specimen containers should be filled to the top with phosphate buffer and sent on wet ice. Do not freeze.
Specimen Labeling	Specimen (block) key, denoting tissue type is extremely helpful and will expedite results
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday-Thursday, overnight. If specimen is frozen, send separately on dry ice. If specimen is refrigerated, ship on frozen gel packs. For urgent cases, please contact laboratory immediately. During hot weather, to avoid melting of paraffin blocks, they should be packed on ice packs. Do not pack wet tissue and frozen tissue together, please package separately to avoid freezing and damage of wet tissue. Please include the full name, title, complete mailing address, e-mail address, and telephone and fax numbers of the submitter. This will be to whom the final pathology report is addressed.
Methodology	Histopathology, H&E's and Special Stains, Immunohistochemistry (IHC), Polymerase Chain Reaction (PCR) and Sequencing, Electron Microscopy (EM), Tissue Culture, Nucleic Acid Extraction for transfer to SME
Turnaround Time	2 Weeks
Interferences & Limitations	Prolonged fixation (>2 weeks) may interfere with some immunohistochemical and molecular diagnostic assays
Additional Information	Preliminary results are usually reported within 1 week, but may take up to 2 weeks depending on the nature of the case. Images are especially important in evaluation and guiding of testing.

Test Order

Pathologic Evaluation of Sudden Unexplained Infant Death with Suspicion of Infection

CDC-10371

CDC Points of Contact Pathology Branch
(404) 639-3132
pathology@cdc.gov

Test Order

Pathologic Evaluation of Unexplained Illness Due to Possible Infectious Etiology

CDC-10372

Synonym(s)	Autopsy, biopsy, formalin fixed tissues, fresh and frozen tissues, tissue culture, pathology, paraffin blocks, histopathology, electron microscopy, immunohistochemistry, PCR
Pre-Approval Needed	**Pathology Branch, , (404) 639-3132, pathology@cdc.gov**
Supplemental Information Required	**Please include a cover letter outlining a brief clinical history, including relevant demographic/epidemiologic information, a copy of (a) the autopsy report (preliminary or final) or (b) surgical pathology/report, copies of pertinent results (microbiology, hematology, serology, culture, and/or biochemical) and images (clinical and/or gross autopsy photos).** **Please include a key to the identification of the blocks**
Supplemental Form	http://www.cdc.gov/ncezid/dhcpp/idpb/index.html
Performed on Specimens From	Human and Animal
Acceptable Sample/ Specimen Type for Testing	Representative tissues from all organs showing microscopic pathology. Preferred specimens include paraffin blocks of tissues showing gross or microscopic pathology and representative tissues in formalin. Fresh-frozen tissue may also be submitted.
Minimum Volume Required	Not Applicable
Storage & Preservation of Specimen Prior to Shipping	Specifics will be determined upon consultation. In general, paraffin-embedded tissue blocks should be submitted where tissues have been in formalin for a significant time, wet tissue should be in 10% neutral buffered formalin, unstained slides (not optimal), should be cut at 3-5 microns (10 slides per block), and Electron Microscopy specimen should be fixed in glutaraldehyde and held in phosphate buffer.
Transport Medium	Electron Microscopy specimen containers should be filled to the top with phosphate buffer and sent on wet ice. Do not freeze.
Specimen Labeling	Specimen (block) key, denoting tissue type is extremely helpful and will expedite results
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday-Thursday, overnight. If specimens are frozen, send separately on dry ice. If specimens are refrigerated, ship on frozen gel packs. For urgent cases, please contact laboratory immediately. During hot weather, to avoid melting of paraffin blocks, they should be packed on ice packs. Do not pack wet tissue and frozen tissue together, please package separately to avoid freezing and damage of wet tissue. Please include the full name, title, complete mailing address, e-mail address, and telephone and fax numbers of the submitter. This will be to whom the final pathology report is addressed.
Methodology	Histopathology, H&E's and Special Stains, Immunohistochemistry (IHC), Polymerase Chain Reaction (PCR) and Sequencing, Electron Microscopy (EM), Tissue Culture, Nucleic Acid Extraction for transfer to SME
Turnaround Time	2 Weeks
Interferences & Limitations	Prolonged fixation (>2 weeks) may interfere with some immunohistochemical and molecular diagnostic assays
Additional Information	Preliminary results are usually reported within 1 week, but may take up to 2 weeks depending on the nature of the case. Images are especially important in evaluation and guiding of testing.

Test Order

Pathologic Evaluation of Unexplained Illness Due to Possible Infectious Etiology

CDC-10372

CDC Points of Contact	Pathology Branch (404) 639-3132 pathology@cdc.gov

Test Order

Pathology Special Study

CDC-10373

Synonym(s)	None
Pre-Approval Needed	**Pathology Branch, , (404) 639-3132, pathology@cdc.gov**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human and Animal
Acceptable Sample/ Specimen Type for Testing	To be determined
Minimum Volume Required	To be determined
Storage & Preservation of Specimen Prior to Shipping	To be determined
Transport Medium	To be determined
Specimen Labeling	To be determined
Shipping Instructions which Include Specimen Handling Requirements	To be determined
Methodology	To be determined
Turnaround Time	
Interferences & Limitations	To be determined
Additional Information	To be determined
CDC Points of Contact	Pathology Branch (404) 639-3132 pathology@cdc.gov

Test Order

Picornavirus Detection and Identification (not Hepatitis A, not Rhinovirus)

CDC-10374

Synonym(s)	Theier's murine encephalomyelitis virus (TMEV), Saffold virus (SAFV), Cosavirus (COSV) (Dekavirus), Salivirus (SALV) (Klassevirus), Kobuvirus, Aichi virus, Encephalomyocarditis virus (EMCV), Vilyuisk virus
Pre-Approval Needed	**Nix, Alan, (404) 639-1689, wbn0@cdc.gov** **Oberste, Steve, (404) 639-5497, mbo2@cdc.gov**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human, Animal, and Food/Environmental/Medical Devices/Biologics
Acceptable Sample/ Specimen Type for Testing	Specimens include stool, serum, throat or nasal swab, cerebrospinal fluid (CSF), vesicle fluid or lesion, rectal, or nasopharyngeal (NP)/oropharyngeal (OP) swabs. Fresh or frozen tissues are preferred to Formalin fixed tissues, but will accept both.
Minimum Volume Required	Not Applicable
Storage & Preservation of Specimen Prior to Shipping	Vesicle fluid, rectal, or nasopharyngeal (NP)/oropharyngeal (OP) swabs: Use only sterile Dacron or rayon swabs with plastic shafts or if available, flocked swabs. DO NOT use calcium alginate swabs or swabs with wooden sticks, as they may contain substances that inactivate some viruses and inhibit some molecular assays. Place the swab immediately into a sterile viral containing 2mL of viral transport media without antibiotics, if possible. Stool: Collect in a clean, dry, leak-proof container. Serum: For each serum specimen, collect whole blood into a serum separator tube (marble or tiger top SST). Allow to clot at room temperature for a minimum of 30 minutes and centrifuge.
Transport Medium	Viral transport medium. If you do not have viral transport media, place the swab into a sterile vial without viral transport media. Aseptically, cut or break applicator sticks off near the tip to permit tightening of the cap. For NP/OP swabs, both swabs can be placed in the same vial, if desired.
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday - Thursday, overnight to avoid weekend deliveries. Frozen specimen should be shipped on dry ice and refrigerated specimen should be shipped on cold packs, as an etiologic agent. Include the full name, title, complete mailing address, email address, telephone, and fax number of the submitter. This will be the person to whom the final report will be mailed to.
Methodology	Molecular techniques
Turnaround Time	14 Days
Interferences & Limitations	Collecting specimens during the first week of illness is ideal although the virus can be shed in stool for several weeks. A specimen set collected in the second week of illness should include a rectal swab or stool sample.
Additional Information	Minimum volume for cell culture is 0.5-1 mL, for CSF is 60 uL, and for fresh frozen tissues is 2 mm^2.

	Stool: Stool may be collected within 14 days of symptom onset. Collect 10-20 g of stool in a clean, dry, leak-proof container. Serum: For each serum specimen, collect (adults and children >6 kg: 5 mL, children <6 kg: 2 mL) of whole blood into a serum separator tube (marble or tiger top SST). A minimum of 1 mL of whole blood is needed for testing of pediatric patients. Allow to clot at room temperature for a minimum of 30 minutes and centrifuge.
CDC Points of Contact	Alan Nix (404) 639-1689 wbn0@cdc.gov Steve Oberste (404) 639-5497 mbo2@cdc.gov

Test Order

Picornavirus Special Study

CDC-10375

Synonym(s)	None
Pre-Approval Needed	**Nix, Alan, (404) 639-1689, wbn0@cdc.gov** **Oberste, Steve, (404) 639-5497, mbo2@cdc.gov**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human, Animal, and Food/Environmental/Medical Devices/Biologics
Acceptable Sample/ Specimen Type for Testing	To be determined
Minimum Volume Required	To be determined
Storage & Preservation of Specimen Prior to Shipping	To be determined
Transport Medium	To be determined
Specimen Labeling	To be determined
Shipping Instructions which Include Specimen Handling Requirements	To be determined
Methodology	
Turnaround Time	
Interferences & Limitations	To be determined
Additional Information	To be determined
CDC Points of Contact	Alan Nix (404) 639-1689 wbn0@cdc.gov Steve Oberste (404) 639-5497 mbo2@cdc.gov

Test Order

Polio Isolation, Intratypic Differentiation, Genotyping

CDC-10376

Synonym(s)	PV polio virus, ITD, Polio sequencing, AFP acute flaccid paralysis
Pre-Approval Needed	**None**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human, Animal, and Food/Environmental/Medical Devices/Biologics
Acceptable Sample/ Specimen Type for Testing	Stool, tissue culture, isolate, Fast Technology for Analysis of nucleic acids (FTA) cards, less common clinical specimens include nasopharyngeal and rectal swabs and cerebrospinal fluid (CSF)
Minimum Volume Required	50 uL (tissue culture)
Storage & Preservation of Specimen Prior to Shipping	Keep specimen refrigerated or frozen
Transport Medium	Not Applicable
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday – Thursday, overnight to avoid weekend deliveries. Frozen specimen should be shipped on dry ice and refrigerated specimen should be shipped on cold packs, as an etiologic agent.
Methodology	Molecular techniques, Cell culture
Turnaround Time	21 Days
Interferences & Limitations	None
Additional Information	If case investigation form is readily available, please submit with specimen
CDC Points of Contact	Cara Burns (404) 639-5499 zqd1@cdc.gov Steve Oberste (404) 639-5497 mbo2@cdc.gov

Test Order

Polio Serology

CDC-10377

Synonym(s)	Neutralization assay, NT, MNT
Pre-Approval Needed	**Weldon, William, (404) 639-5485, wiw4@cdc.gov** **Oberste, Steve, (404) 639-5497, mbo2@cdc.gov**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Serum
Minimum Volume Required	200 uL
Storage & Preservation of Specimen Prior to Shipping	Needs to be collected from clotted whole blood or through serum separated tubes (SST). Serum needs to be frozen.
Transport Medium	Not Applicable
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday - Thursday, overnight to avoid weekend deliveries. Frozen specimen should be shipped on dry ice as an etiologic agent.
Methodology	Neutralization assay
Turnaround Time	4 Weeks
Interferences & Limitations	Red blood cell hemolysis will adversely affect test results
Additional Information	None
CDC Points of Contact	William Weldon (404) 639-5485 wiw4@cdc.gov Steve Oberste (404) 639-5497 mbo2@cdc.gov

Test Order

Polio Special Study

CDC-10378

Synonym(s)	None
Pre-Approval Needed	**Burns, Cara, (404) 639-5499, zqd1@cdc.gov** **Oberste, Steve, (404) 639-5497, mbo2@cdc.gov**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human, Animal, and Food/Environmental/Medical Devices/Biologics
Acceptable Sample/ Specimen Type for Testing	To be determined
Minimum Volume Required	To be determined
Storage & Preservation of Specimen Prior to Shipping	To be determined
Transport Medium	To be determined
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	To be determined
Methodology	
Turnaround Time	
Interferences & Limitations	To be determined
Additional Information	To be determined
CDC Points of Contact	Cara Burns (404) 639-5499 zqd1@cdc.gov Steve Oberste (404) 639-5497 mbo2@cdc.gov

Test Order

Poxvirus - Cowpox Specific Molecular Detection

CDC-10379

Synonym(s)	None
Pre-Approval Needed	**Help Desk, , (404) 639-4129,**
Supplemental Information Required	**Clinical consultation with the Poxvirus Program is required prior to specimen shipment to determine testing urgency. A supplemental form will be supplied after initial consultation.**
Supplemental Form	**None**
Performed on Specimens From	Human and Animal
Acceptable Sample/ Specimen Type for Testing	Lesion fluid and/or material: vesicle/pustule skin or fluid, scab, crust, etc. Collection method: fresh or frozen, swab, biopsy, touch prep slides, formalin fixed, paraffin block. Swabs should be made of nylon, polyester, or Dacron material
Minimum Volume Required	Not Applicable
Storage & Preservation of Specimen Prior to Shipping	All specimens should be stored at 4ºC until shipment. Swabs without individual holders may be stored in a sterile container. Dry swabs are preferred but a minimal amount of viral transport media may be added.
Transport Medium	Prefer swabs dry but will accept specimen in a minimum viral transport medium
Specimen Labeling	Test requires two patient identifiers on the specimen container and the test requisition. In addition to two patient identifiers (name, date of birth/age, etc.), provide specimen type, date of collection and body location.
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday-Thursday overnight to avoid weekend deliveries Refrigerated specimen should be shipped on cold packs
Methodology	Real Time-PCR
Turnaround Time	1 Day
Interferences & Limitations	Swabs intended for the collection and transport of bacterial specimens should not be used. Cotton swabs may cause PCR inhibition and should not be used. The addition of viral transport media to swab specimens will dilute any viral DNA present.
Additional Information	Turnaround time: Urgent cases -Testing is completed and reported within 24 hours of specimen receipt when results directly impact patient care; Routine cases -Testing is completed and reported within 5 business days of specimen receipt. Formalin fixed material is first tested by the Infectious Disease Pathology Branch (IDPB) and will only identify poxviruses to the genus level. DNA may be extracted from paraffin block embedded lesion material and tested by the Poxvirus Program. Fresh, non-frozen tissue is preferred by IDPB.
CDC Points of Contact	Help Desk (404) 639-4129

Test Order

Poxvirus - Encephalitis Work-Up (Post Vaccinia Encephalitis, Monkeypox, etc.)

CDC-10380

Synonym(s)	Monkeypox, Post-vaccinial encephalitis
Pre-Approval Needed	**Help Desk, , (404) 639-4129,**
Supplemental Information Required	**Clinical consultation with the Poxvirus Program is required prior to specimen shipment to determine testing urgency. A supplemental form will be supplied after initial consultation.**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Cerebrospinal fluid (CSF) and serum must be submitted
Minimum Volume Required	1 mL
Storage & Preservation of Specimen Prior to Shipping	Keep specimen refrigerated. Serum should be collected in a venous blood tube containing a clot activator and/or gel. Blood tubes should be spun prior to shipment or an aliquot of the collected serum can be shipped.
Transport Medium	Not Applicable
Specimen Labeling	Test requires two patient identifiers on the specimen container and the test requisition. In addition to two patient identifiers (name, date of birth/age, etc.), provide specimen type, date of collection and body location.
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday-Thursday overnight to avoid weekend deliveries Refrigerated specimen should be shipped on cold packs
Methodology	ELISA, Real Time PCR
Turnaround Time	2 Days
Interferences & Limitations	In order to accurately interpret test results generated from CSF specimens, paired serum must be submitted
Additional Information	Turnaround time: Urgent cases - Testing is completed within 48 hours of specimen receipt when results directly impact patient care; Routine cases - Testing is completed within 5-7 days of specimen receipt. For serology testing, please notify the lab prior to shipment so reagents can be prepared
CDC Points of Contact	Help Desk (404) 639-4129

Test Order

Poxvirus - Molluscum Contagiosum Specific Molecular Detection

CDC-10381

Synonym(s)	MCV
Pre-Approval Needed	**Help Desk, , (404) 639-4129,**
Supplemental Information Required	**Clinical consultation with the Poxvirus Program is required prior to specimen shipment to determine testing urgency. A supplemental form will be supplied after initial consultation.**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Lesion fluid and/or material: vesicle/pustule skin or fluid, scab, crust, etc. Collection method: fresh or frozen, swab, biopsy, touch prep slides, formalin fixed, paraffin block. Swabs should be made of nylon, polyester, or Dacron material
Minimum Volume Required	Not Applicable
Storage & Preservation of Specimen Prior to Shipping	All specimens should be stored at 4ºC until shipment. Swabs without individual holders may be stored in a sterile container. Dry swabs are preferred but a minimal amount of viral transport media may be added.
Transport Medium	Prefer swabs dry but will accept specimen in a minimum viral transport medium
Specimen Labeling	Test requires two patient identifiers on the specimen container and the test requisition. In addition to two patient identifiers (name, date of birth/age, etc.), provide specimen type, date of collection and body location.
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday-Thursday overnight to avoid weekend deliveries Refrigerated specimen should be shipped on cold packs
Methodology	Real Time-PCR
Turnaround Time	1 Day
Interferences & Limitations	Swabs intended for the collection and transport of bacterial specimens should not be used. Cotton swabs may cause PCR inhibition and should not be used. The addition of viral transport media to swab specimens will dilute any viral DNA present.
Additional Information	Turnaround time: Urgent cases -Testing is completed and reported within 24 hours of specimen receipt when results directly impact patient care; Routine cases -Testing is completed and reported within 5 business days of specimen receipt. Formalin fixed material is first tested by the Infectious Disease Pathology Branch (IDPB) and will only identify poxviruses to the genus level. DNA may be extracted from paraffin block embedded lesion material and tested by the Poxvirus Program. Fresh, non-frozen tissue is preferred by IDPB.
CDC Points of Contact	Help Desk (404) 639-4129

Test Order

Poxvirus - Monkeypox Specific Molecular Detection

CDC-10382

Synonym(s)	None
Pre-Approval Needed	**Help Desk, , (404) 639-4129,**
Supplemental Information Required	**Clinical consultation with the Poxvirus Program is required prior to specimen shipment to determine testing urgency. A supplemental form will be supplied after initial consultation.**
Supplemental Form	**None**
Performed on Specimens From	Human and Animal
Acceptable Sample/ Specimen Type for Testing	Lesion fluid and/or material: vesicle/pustule skin or fluid, scab, crust, etc. Collection method: fresh or frozen, swab, biopsy, touch prep slides, formalin fixed, paraffin block. Swabs should be made of nylon, polyester, or Dacron material.
Minimum Volume Required	Not Applicable
Storage & Preservation of Specimen Prior to Shipping	All specimens should be stored at 4ºC until shipment. Swabs without individual holders may be stored in a sterile container. Dry swabs are preferred but a minimal amount of viral transport media may be added.
Transport Medium	Prefer swabs dry but will accept specimen in a minimum viral transport medium
Specimen Labeling	Test requires two patient identifiers on the specimen container and the test requisition. In addition to two patient identifiers (name, date of birth/age, etc.), provide specimen type, date of collection and body location.
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday-Thursday overnight to avoid weekend deliveries Refrigerated specimen should be shipped on cold packs
Methodology	Real Time-PCR
Turnaround Time	1 Day
Interferences & Limitations	Swabs intended for the collection and transport of bacterial specimens should not be used. Cotton swabs may cause PCR inhibition and should not be used. The addition of viral transport media to swab specimens will dilute any viral DNA present.
Additional Information	Turnaround time: Urgent cases -Testing is completed and reported within 24 hours of specimen receipt when results directly impact patient care; Routine cases -Testing is completed and reported within 5 business days of specimen receipt. Formalin fixed material is first tested by the Infectious Disease Pathology Branch (IDPB) and will only identify poxviruses to the genus level. DNA may be extracted from paraffin block embedded lesion material and tested by the Poxvirus Program. Fresh, non-frozen tissue is preferred by IDPB.
CDC Points of Contact	Help Desk (404) 639-4129

Test Order

Poxvirus - Orthopoxvirus Serology (Includes Vaccinia virus)

CDC-10384

Synonym(s)	Orthopoxvirus, Vaccincia Antibody detection
Pre-Approval Needed	**Help Desk, , (404) 639-4129,**
Supplemental Information Required	**Clinical consultation with the Poxvirus Program is required prior to specimen shipment to determine testing urgency. A supplemental form will be supplied after initial consultation.**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Serum Sample
Minimum Volume Required	1 mL
Storage & Preservation of Specimen Prior to Shipping	Keep specimen refrigerated. Serum should be collected in a venous blood tube containing a clot activator and/or gel. Blood tubes should be spun prior to shipment or an aliquot of the collected serum can be shipped.
Transport Medium	Not Applicable
Specimen Labeling	Test requires two patient identifiers on the specimen container and the test requisition. In addition to two patient identifiers (name, date of birth/age, etc.), provide specimen type, date of collection and body location.
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday-Thursday overnight to avoid weekend deliveries Refrigerated specimen should be shipped on cold packs
Methodology	ELISA
Turnaround Time	2 Days
Interferences & Limitations	Collection in either heparin and/or EDTA will interfere with results
Additional Information	Turnaround time: Urgent cases -Testing is completed within 48 hours of specimen receipt when results directly impact patient care; Routine cases -Testing is completed within 5-7 days of specimen receipt. For serology testing, please notify the lab prior to shipment so reagents can be prepared
CDC Points of Contact	Help Desk (404) 639-4129

Test Order

Poxvirus - Pan-Poxvirus Molecular Detection (Human Infections)

CDC-10385

Synonym(s)	None
Pre-Approval Needed	**Help Desk, , (404) 639-4129,**
Supplemental Information Required	**Clinical consultation with the Poxvirus Program is required prior to specimen shipment to determine testing urgency. A supplemental form will be supplied after initial consultation.**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Lesion fluid and/or material: vesicle/pustule skin or fluid, scab, crust, etc. Collection method: fresh or frozen, swab, biopsy, touch prep slides, formalin fixed, paraffin block. Swabs should be made of nylon, polyester, or Dacron material.
Minimum Volume Required	Not Applicable
Storage & Preservation of Specimen Prior to Shipping	All specimens should be stored at 4ºC until shipment. Swabs without individual holders may be stored in a sterile container. Dry swabs are preferred but a minimal amount of viral transport media may be added.
Transport Medium	Prefer swabs dry but will accept specimen in a minimum viral transport medium
Specimen Labeling	Test requires two patient identifiers on the specimen container and the test requisition. In addition to two patient identifiers (name, date of birth/age, etc.), provide specimen type, date of collection and body location.
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday-Thursday overnight to avoid weekend deliveries Refrigerated specimen should be shipped on cold packs
Methodology	Polymerase Chain Reaction (PCR)
Turnaround Time	2 Days
Interferences & Limitations	Swabs intended for the collection and transport of bacterial specimens should not be used. Cotton swabs may cause PCR inhibition and should not be used. The addition of viral transport media to swab specimens will dilute any viral DNA present.
Additional Information	Turnaround time: Urgent cases -Testing is completed and reported within 24 hours of specimen receipt when results directly impact patient care; Routine cases -Testing is completed and reported within 5 business days of specimen receipt. Formalin fixed material is first tested by the Infectious Disease Pathology Branch (IDPB) and will only identify poxviruses to the genus level. DNA may be extracted from paraffin block embedded lesion material and tested by the Poxvirus Program. Fresh, non-frozen tissue is preferred by IDPB.
CDC Points of Contact	Help Desk (404) 639-4129

Test Order

Poxvirus - Parapoxvirus Generic Molecular Detection

CDC-10383

Synonym(s)	Sore mouth, scabby mouth, contagious ecthyma
Pre-Approval Needed	**Help Desk, , (404) 639-4129,**
Supplemental Information Required	**Clinical consultation with the Poxvirus Program is required prior to specimen shipment to determine testing urgency. A supplemental form will be supplied after initial consultation.**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Lesion fluid and/or material: vesicle/pustule skin or fluid, scab, crust, etc. Collection method: fresh or frozen, swab, biopsy, touch prep slides, formalin fixed, paraffin block. Swabs should be made of nylon, polyester, or Dacron material
Minimum Volume Required	Not Applicable
Storage & Preservation of Specimen Prior to Shipping	All specimens should be stored at 4ºC until shipment. Swabs without individual holders may be stored in a sterile container. Dry swabs are preferred but a minimal amount of viral transport media may be added.
Transport Medium	Prefer swabs dry but will accept specimen in a minimum viral transport medium
Specimen Labeling	Test requires two patient identifiers on the specimen container and the test requisition. In addition to two patient identifiers (name, date of birth/age, etc.), provide specimen type, date of collection and body location.
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday-Thursday overnight to avoid weekend deliveries Refrigerated specimen should be shipped on cold packs
Methodology	Real Time-PCR
Turnaround Time	1 Day
Interferences & Limitations	Swabs intended for the collection and transport of bacterial specimens should not be used. Cotton swabs may cause PCR inhibition and should not be used. The addition of viral transport media to swab specimens will dilute any viral DNA present.
Additional Information	Turnaround time: Urgent cases -Testing is completed and reported within 24 hours of specimen receipt when results directly impact patient care; Routine cases -Testing is completed and reported within 5 business days of specimen receipt. Formalin fixed material is first tested by the Infectious Disease Pathology Branch (IDPB) and will only identify poxviruses to the genus level. DNA may be extracted from paraffin block embedded lesion material and tested by the Poxvirus Program. Fresh, non-frozen tissue is preferred by IDPB.
CDC Points of Contact	Help Desk (404) 639-4129

Test Order

Poxvirus - Parapoxvirus Molecular Detection

CDC-10386

Synonym(s)	None
Pre-Approval Needed	**Help Desk, , (404) 639-4129,**
Supplemental Information Required	**Clinical consultation with the Poxvirus Program is required prior to specimen shipment to determine testing urgency. A supplemental form will be supplied after initial consultation.**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Lesion fluid and/or material: vesicle/pustule skin or fluid, scab, crust, etc. Collection method: fresh or frozen, swab, biopsy, touch prep slides, formalin fixed, paraffin block. Swabs should be made of nylon, polyester, or Dacron material
Minimum Volume Required	Not Applicable
Storage & Preservation of Specimen Prior to Shipping	All specimens should be stored at 4ºC until shipment. Swabs without individual holders may be stored in a sterile container. Dry swabs are preferred but a minimal amount of viral transport media may be added.
Transport Medium	Prefer swabs dry but will accept specimen in a minimum viral transport medium
Specimen Labeling	Test requires two patient identifiers on the specimen container and the test requisition. In addition to two patient identifiers (name, date of birth/age, etc.), provide specimen type, date of collection and body location.
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday-Thursday overnight to avoid weekend deliveries Refrigerated specimen should be shipped on cold packs
Methodology	Real Time-PCR
Turnaround Time	1 Day
Interferences & Limitations	Swabs intended for the collection and transport of bacterial specimens should not be used. Cotton swabs may cause PCR inhibition and should not be used. The addition of viral transport media to swab specimens will dilute any viral DNA present.
Additional Information	Turnaround time: Urgent cases -Testing is completed and reported within 24 hours of specimen receipt when results directly impact patient care; Routine cases -Testing is completed and reported within 5 business days of specimen receipt. Formalin fixed material is first tested by the Infectious Disease Pathology Branch (IDPB) and will only identify poxviruses to the genus level. DNA may be extracted from paraffin block embedded lesion material and tested by the Poxvirus Program. Fresh, non-frozen tissue is preferred by IDPB.
CDC Points of Contact	Help Desk (404) 639-4129

Test Order

Poxvirus - Sealpox Specific Molecular Detection

CDC-10387

Synonym(s)	None
Pre-Approval Needed	**Help Desk, , (404) 639-4129,**
Supplemental Information Required	**Clinical consultation with the Poxvirus Program is required prior to specimen shipment to determine testing urgency. A supplemental form will be supplied after initial consultation.**
Supplemental Form	**None**
Performed on Specimens From	Human and Animal
Acceptable Sample/ Specimen Type for Testing	Lesion fluid and/or material: vesicle/pustule skin or fluid, scab, crust, etc. Collection method: fresh or frozen, swab, biopsy, touch prep slides, formalin fixed, paraffin block. Swabs should be made of nylon, polyester, or Dacron material
Minimum Volume Required	Not Applicable
Storage & Preservation of Specimen Prior to Shipping	All specimens should be stored at 4ºC until shipment. Swabs without individual holders may be stored in a sterile container. Dry swabs are preferred but a minimal amount of viral transport media may be added.
Transport Medium	Prefer swabs dry but will accept specimen in a minimum viral transport medium
Specimen Labeling	Test requires two patient identifiers on the specimen container and the test requisition. In addition to two patient identifiers (name, date of birth/age, etc.), provide specimen type, date of collection and body location.
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday-Thursday overnight to avoid weekend deliveries Refrigerated specimen should be shipped on cold packs
Methodology	Real Time-PCR
Turnaround Time	1 Day
Interferences & Limitations	Swabs intended for the collection and transport of bacterial specimens should not be used. Cotton swabs may cause PCR inhibition and should not be used. The addition of viral transport media to swab specimens will dilute any viral DNA present.
Additional Information	Turnaround time: Urgent cases -Testing is completed and reported within 24 hours of specimen receipt when results directly impact patient care; Routine cases -Testing is completed and reported within 5 business days of specimen receipt. Formalin fixed material is first tested by the Infectious Disease Pathology Branch (IDPB) and will only identify poxviruses to the genus level. DNA may be extracted from paraffin block embedded lesion material and tested by the Poxvirus Program. Fresh, non-frozen tissue is preferred by IDPB.
CDC Points of Contact	Help Desk (404) 639-4129

Test Order

Poxvirus - Smallpox (Variola Virus) Specific Molecular Detection

CDC-10388

Synonym(s)	None
Pre-Approval Needed	**DEOC, , (770) 488-7100,**
Supplemental Information Required	**Call CDC Emergency Operations Center prior to contacting laboratory 770-488-7100**
Supplemental Form	http://www.bt.cdc.gov/agent/smallpox/
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Lesion fluid and/or material, serum, and blood must all be submitted. Lesion fluid and/or material: vesicle / pustule skin or fluid, scab, crust, etc.; collection method: touch prep slide, swab, biopsy
Minimum Volume Required	1 mL (blood and serum)
Storage & Preservation of Specimen Prior to Shipping	Serum should be collected in a venous blood tube containing a clot activator and/or gel. Blood tubes should be spun prior to shipment or an aliquot of the collected serum can be shipped. Whole blood should be collected in a blood tube containing ethylenediaminetetraacetic acid (EDTA). Keep specimen refrigerated. It is extremely important not to cross-contaminate specimens (i.e., one specimen per container). Viral transport media should not be added to specimens. All specimens should be stored at 4ºC until shipment. Swabs without individual holders may be stored in a sterile container.
Transport Medium	Prefer swabs dry but will accept specimen in a minimum viral transport medium
Specimen Labeling	Test requires two patient identifiers on the specimen container and the test requisition. In addition to two patient identifiers (name, date of birth/age, etc.), provide specimen type, date of collection and body location.
Shipping Instructions which Include Specimen Handling Requirements	Approval must be obtained prior to the shipment of potential smallpox patient clinical specimens to CDC
Methodology	Real Time-PCR
Turnaround Time	1 Day
Interferences & Limitations	Cotton swabs may cause PCR inhibition and should not be used. Heparin may cause PCR inhibition and should not be used to collect whole blood.
Additional Information	A suspected case of smallpox must be immediately reported to appropriate local, state, or territorial health departments. After review, if smallpox is still suspected, the case should be immediately reported to CDC's Emergency Operations Center. Specimens should be collected as outlined in Guide D on the CDC website: Http://www.bt.cdc.gov/agent/smallpox/response-plan/files/guide-d.pdf
CDC Points of Contact	DEOC (770) 488-7100

Test Order

Poxvirus - Tanapox Specific Molecular Detection

CDC-10389

Synonym(s)	None
Pre-Approval Needed	**Help Desk, , (404) 639-4129,**
Supplemental Information Required	**Clinical consultation with the Poxvirus Program is required prior to specimen shipment to determine testing urgency. A supplemental form will be supplied after initial consultation.**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Lesion fluid and/or material: vesicle/pustule skin or fluid, scab, crust, etc. Collection method: fresh or frozen, swab, biopsy, touch prep slides, formalin fixed, paraffin block. Swabs should be made of nylon, polyester, or Dacron material
Minimum Volume Required	Not Applicable
Storage & Preservation of Specimen Prior to Shipping	All specimens should be stored at 4ºC until shipment. Swabs without individual holders may be stored in a sterile container. Dry swabs are preferred but a minimal amount of viral transport media may be added.
Transport Medium	Prefer swabs dry but will accept specimen in a minimum viral transport medium
Specimen Labeling	Test requires two patient identifiers on the specimen container and the test requisition. In addition to two patient identifiers (name, date of birth/age, etc.), provide specimen type, date of collection and body location.
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday-Thursday overnight to avoid weekend deliveries Refrigerated specimen should be shipped on cold packs
Methodology	Real Time-PCR
Turnaround Time	1 Day
Interferences & Limitations	Swabs intended for the collection and transport of bacterial specimens should not be used. Cotton swabs may cause PCR inhibition and should not be used. The addition of viral transport media to swab specimens will dilute any viral DNA present.
Additional Information	Turnaround time: Urgent cases -Testing is completed and reported within 24 hours of specimen receipt when results directly impact patient care; Routine cases -Testing is completed and reported within 5 business days of specimen receipt. Formalin fixed material is first tested by the Infectious Disease Pathology Branch (IDPB) and will only identify poxviruses to the genus level. DNA may be extracted from paraffin block embedded lesion material and tested by the Poxvirus Program. Fresh, non-frozen tissue is preferred by IDPB.
CDC Points of Contact	Help Desk (404) 639-4129

Test Order

Poxvirus - Vaccinia Specific Molecular Detection

CDC-10390

Synonym(s)	Smallpox Vaccine
Pre-Approval Needed	**Help Desk, , (404) 639-4129,**
Supplemental Information Required	**Clinical consultation with the Poxvirus Program is required prior to specimen shipment to determine testing urgency. A supplemental form will be supplied after initial consultation.**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Lesion fluid and/or material: vesicle/pustule skin or fluid, scab, crust, etc. Collection method: fresh or frozen, swab, biopsy, touch prep slides, formalin fixed, paraffin block. Swabs should be made of nylon, polyester, or Dacron material.
Minimum Volume Required	Not Applicable
Storage & Preservation of Specimen Prior to Shipping	All specimens should be stored at 4ºC until shipment. Swabs without individual holders may be stored in a sterile container. Dry swabs are preferred but a minimal amount of viral transport media may be added.
Transport Medium	Prefer swabs dry but will accept specimen in a minimum viral transport medium
Specimen Labeling	Test requires two patient identifiers on the specimen container and the test requisition. In addition to two patient identifiers (name, date of birth/age, etc.), provide specimen type, date of collection and body location.
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday-Thursday overnight to avoid weekend deliveries Refrigerated specimen should be shipped on cold packs
Methodology	Real Time-PCR
Turnaround Time	1 Day
Interferences & Limitations	Swabs intended for the collection and transport of bacterial specimens should not be used. Cotton swabs may cause PCR inhibition and should not be used. The addition of viral transport media to swab specimens will dilute any viral DNA present.
Additional Information	Turnaround time: Urgent cases -Testing is completed and reported within 24 hours of specimen receipt when results directly impact patient care; Routine cases -Testing is completed and reported within 5 business days of specimen receipt. Formalin fixed material is first tested by the Infectious Disease Pathology Branch (IDPB) and will only identify poxviruses to the genus level. DNA may be extracted from paraffin block embedded lesion material and tested by the Poxvirus Program. Fresh, non-frozen tissue is preferred by IDPB.
CDC Points of Contact	Help Desk (404) 639-4129

Test Order

Puumala Serology

CDC-10391

Synonym(s)	Hanta, HFRS, Nephropathia epidemica
Pre-Approval Needed	**Klena, John, (404) 639-0114, irc4@cdc.gov** **Rollin, Pierre, (404) 639-1124, pyr3@cdc.gov**
Supplemental Information Required	**See Supplemental Form**
Supplemental Form	**http://www.cdc.gov/ncezid/dhcpp/vspb/pdf/specimen-submission.pdf**
Performed on Specimens From	Human and Animal
Acceptable Sample/ Specimen Type for Testing	Blood and serum
Minimum Volume Required	1 mL
Storage & Preservation of Specimen Prior to Shipping	Specimen must be kept cold (at or below 4°C). If possible place specimen in plastic screw capped vials. See link to supplemental submission form for specific information on various specimen types.
Transport Medium	Not Applicable
Specimen Labeling	Patient name, patient ID #, specimen type, date collected
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday-Thursday overnight to avoid weekend deliveries. Specimen should be shipped on cold packs or dry ice if frozen. See supplemental submission forms for further details. Do not ship specimen without prior consultation and approval.
Methodology	ELISA
Turnaround Time	10 Days
Interferences & Limitations	Specimen must remain frozen; warming or freeze thawing reduces sensitivity
Additional Information	Critical specimens will take less than 4 days to turn around. See link to supplemental submission forms for detailed information.
CDC Points of Contact	John Klena (404) 639-0114 irc4@cdc.gov Pierre Rollin (404) 639-1124 pyr3@cdc.gov

Test Order

Rabies Antemortem Human Testing

CDC-10392

Synonym(s)	None
Pre-Approval Needed	**Rabies Duty Officer, , (404) 639-1050,**
Supplemental Information Required	**See Supplemental Form**
Supplemental Form	http://www.cdc.gov/rabies/pdf/rorform.pdf
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	All four of the following are required for testing: serum, CSF, nuchal (skin) biopsy, and saliva
Minimum Volume Required	500 uL (serum, CSF, saliva)
Storage & Preservation of Specimen Prior to Shipping	Keep all samples stored at -80ºC and ship on dry ice. Serum and CSF can be refrigerated before shipping. Please see the supplemental link for specific specimen storage and preservation.
Transport Medium	Saliva and Nuchal (skin) biopsy should not be put in a transport medium
Specimen Labeling	Two patient identifiers on the specimen container and the test requisition, sample type and date of collection
Shipping Instructions which Include Specimen Handling Requirements	Ship all specimens overnight, first AM delivery and provide the CDC Point of Contact with the tracking number of package. Frozen specimen should be shipped on dry ice Refrigerated specimen should be shipped on cold packs
Methodology	IgG by IFA (Serum and CSF), IgM by IFA (Serum and CSF), Viral Neutralizing Antibodies by RFFIT (Serum and CSF), DFA (Nuchal (skin) biopsy), RT-PCR (Nuchal (skin) biopsy), RT-PCR (Saliva), Sequencing
Turnaround Time	3 Days
Interferences & Limitations	Saliva and CSF specimen should be free of blood because blood may interfere with test results due to the inhibitors present in blood
Additional Information	Sequencing will only be performed if the RT-PCR test is positive. Nuchal (skin) biopsy has to be a full punch (5-6 millimeters). If testing needs to be repeated results may take up to 7 days.
CDC Points of Contact	Rabie Duty Officer (404) 639-1050

Test Order

Rabies Antibody - Pre/Post-exposure Prophylaxis

CDC-10393

Synonym(s)	Serology, Immunization status, Rabies titer
Pre-Approval Needed	**Rabies Duty Officer, , (404) 639-1050,**
Supplemental Information Required	**See Supplemental Form**
Supplemental Form	http://www.cdc.gov/rabies/pdf/rorform.pdf
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Serum
Minimum Volume Required	500 uL
Storage & Preservation of Specimen Prior to Shipping	Specimen can be kept refrigerated but prefer frozen
Transport Medium	Not Applicable
Specimen Labeling	Two patient identifiers on the specimen container and the test requisition, sample type and date of collection
Shipping Instructions which Include Specimen Handling Requirements	Ship all specimens overnight, first AM delivery and provide the CDC Point of Contact with the tracking number of package. Frozen specimen should be shipped on dry ice Refrigerated specimen should be shipped on cold packs
Methodology	Viral Neutralizing Antibodies RFFIT
Turnaround Time	3 Days
Interferences & Limitations	Hemolyzed samples interfere with test results
Additional Information	If testing needs to be repeated results may take up to 7 days
CDC Points of Contact	Rabies Duty Officer (404) 639-1050

Test Order

Rabies Confirmatory Testing (Animal)

CDC-10394

Synonym(s)	Rabies DFA
Pre-Approval Needed	**Rabies Duty Officer, , (404) 639-1050,**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Animal
Acceptable Sample/ Specimen Type for Testing	Fresh-frozen brain tissues: full cross section of brain stem and cerebellum (vermis, right and left lateral lobes). Other specimens may be submitted upon consultation with Rabies Duty Officer.
Minimum Volume Required	Not Applicable
Storage & Preservation of Specimen Prior to Shipping	Stored at -80ºC and should be kept on dry ice
Transport Medium	Not Applicable
Specimen Labeling	One patient identifier on the specimen container and the test requisition, sample type and date of collection
Shipping Instructions which Include Specimen Handling Requirements	Ship all specimens overnight, first AM delivery and provide the CDC Point of Contact with the tracking number of package Frozen specimen should be shipped on dry ice
Methodology	DFA for rabies virus antigen, Direct Rapid Immunohistochemistry test (DRIT), Real Time RT-PCR, Virus Isolation, Antigenic Typing, Sequence Analysis
Turnaround Time	2 Days
Interferences & Limitations	Test is limited by decomposed tissues due to denaturation of viral proteins
Additional Information	May take up longer if repeat testing and additional procedures are required to rule-out rabies
CDC Points of Contact	Rabies Duty Officers (404) 639-1050

Test Order

Rabies Confirmatory Testing (Human)

CDC-10395

Synonym(s)	None
Pre-Approval Needed	**Rabies Duty Officer, , (404) 639-1050,**
Supplemental Information Required	**See Supplemental Form**
Supplemental Form	http://www.cdc.gov/rabies/pdf/rorform.pdf
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	All four of the following are required for antemortem testing: serum, CSF, Nuchal (skin) biopsy, and saliva. Fresh-frozen brain tissues for postmortem testing: full cross section of brain stem and cerebellum (vermis right and left lateral lobes).
Minimum Volume Required	500 uL (serum, CSF, saliva)
Storage & Preservation of Specimen Prior to Shipping	Keep all samples stored at -80ºC and ship on dry ice. Serum and CSF can be refrigerated before shipping. Please see the supplemental link for specific specimen storage and preservation.
Transport Medium	Saliva and nuchal (skin) biopsy should not be put in a transport medium
Specimen Labeling	Two patient identifiers on the specimen container and the test requisition, sample type and date of collection
Shipping Instructions which Include Specimen Handling Requirements	Ship all specimens overnight, first AM delivery and provide the CDC Point of Contact with the tracking number of package. Frozen specimen should be shipped on dry ice Refrigerated specimen should be shipped on cold packs
Methodology	IgG by IFA (Serum and CSF), DFA (Nuchal (skin) biopsy and for rabies virus antigen), Antigenic Typing (brain), RT-PCR, Sequence Analysis, Isolation, Direct Rapid Immunohistochemistry test (DRIT), IHC, Viral Neutralizing Antibodies by RFFIT (Serum and CSF)
Turnaround Time	3 Days
Interferences & Limitations	Saliva and CSF specimen should be free of blood because blood may interfere with test results due to the inhibitors present in blood. Test is limited by decomposed tissues due to denaturation of viral proteins.
Additional Information	Sequencing will only be performed if the RT-PCR test is positive. Nuchal (skin) biopsy has to be a full punch (5-6 millimeters). If testing needs to be repeated results may take up to 7 days.
CDC Points of Contact	Rabies Duty Officer (404) 639-1050

Test Order

Rabies Postmortem Human Testing

CDC-10396

Synonym(s)	Rabies DFA
Pre-Approval Needed	**Rabies Duty Officer, , (404) 639-1050,**
Supplemental Information Required	**See Supplemental Form**
Supplemental Form	http://www.cdc.gov/rabies/pdf/rorform.pdf
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Fresh-frozen brain tissues: full cross section of brain stem and cerebellum (vermis, right and left lateral lobes). Other specimens may be submitted upon consultation with Rabies Duty Officer.
Minimum Volume Required	Not Applicable
Storage & Preservation of Specimen Prior to Shipping	Stored at -80ºC and should be kept on dry ice
Transport Medium	Not Applicable
Specimen Labeling	Two patient identifiers on the specimen container and the test requisition, sample type and date of collection
Shipping Instructions which Include Specimen Handling Requirements	Ship all specimens overnight, first AM delivery and provide the CDC Point of Contact with the tracking number of package Frozen specimen should be shipped on dry ice
Methodology	DFA for rabies virus antigen, RT-PCR, Direct Rapid Immunohistochemistry test (DRIT), Virus Isolation, Sequence Analysis, Antigenic Typing
Turnaround Time	2 Days
Interferences & Limitations	Tests are limited by decomposed tissues due to denaturation of viral proteins
Additional Information	If testing needs to be repeated results may take up to 7 days
CDC Points of Contact	Rabies Duty Officer (404) 639-1050

Test Order

Rabies Special Study

CDC-10501

Synonym(s)	None
Pre-Approval Needed	**Rabies Duty Officer, , (404) 639-1050, Singletary-Meadows, Kristi, (404) 639-2833, kts9@cdc.gov**
Supplemental Information Required	**See Supplemental Form**
Supplemental Form	http://www.cdc.gov/rabies/pdf/rorform.pdf
Performed on Specimens From	Human, Animal, and Food/Environmental/Medical Devices/Biologics
Acceptable Sample/ Specimen Type for Testing	To be determined
Minimum Volume Required	
Storage & Preservation of Specimen Prior to Shipping	Stored at -80C and should be kept on dry ice.
Transport Medium	To be determined
Specimen Labeling	To be determined
Shipping Instructions which Include Specimen Handling Requirements	
Methodology	
Turnaround Time	
Interferences & Limitations	To be determined
Additional Information	To be determined
CDC Points of Contact	Kristi Singletary-Meadows (404) 639-2833 kts9@cdc.gov Subbian Satheshkumar Panayampalli (404) 639-1594 xdv3@cdc.gov

Test Order

Rabies Virus Genetic Typing

CDC-10397

Synonym(s)	Rabies Antigenic Typing, Rabies Monoclonal Antibody Typing, Rabies MAB Typing, Rabies RT-PCR, Rabies Sequence Analysis, Rabies Variant Typing
Pre-Approval Needed	**Rabies Duty Officer, , (404) 639-1050,**
Supplemental Information Required	**See Supplemental Form**
Supplemental Form	http://www.cdc.gov/rabies/pdf/rorform.pdf
Performed on Specimens From	Human and Animal
Acceptable Sample/ Specimen Type for Testing	Fresh-frozen brain tissues: full cross section of brain stem and cerebellum (vermis, right and left lateral lobes) preferred, or a viral isolate. Other specimens may be submitted upon consultation with Rabies Duty Officer.
Minimum Volume Required	Not Applicable
Storage & Preservation of Specimen Prior to Shipping	Stored at -80ºC and should be kept on dry ice
Transport Medium	Not Applicable
Specimen Labeling	Two unique identifiers for human specimen and one unique identifier for animal specimen, date of collection and specimen type
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday-Thursday overnight to avoid weekend deliveries and provide the CDC Point of Contact with the tracking number of package Frozen specimen should be shipped on dry ice
Methodology	DFA, IFA, Sequence Analysis, RT-PCR, Isolation
Turnaround Time	7 Days
Interferences & Limitations	Tests are limited by decomposed tissues due to denaturation of viral proteins
Additional Information	Urgent specimens will be reported within 24 hours if the test does not need to be repeated. Non-urgent specimen may take longer than 7 days.
CDC Points of Contact	Rabies Duty Officer (404) 639-1050

Test Order

Respiratory Agents (*Chlamydia*, *Legionella*, *Mycoplasma*) Molecular Detection

CDC-10157

Synonym(s)	Atypical pneumonia, CAP, *Chlamydia pneumoniae*, Legionnaires' disease or LD, Legionellosis, Pontiac fever, Walking pneumonia
Pre-Approval Needed	**None**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Nasopharyngeal (NP) and/or Oropharyngeal (OP) swabs, and any lower respiratory tract specimen including bronchoalveolar lavage (BAL) and sputum. Others upon consultation with laboratory.
Minimum Volume Required	1 mL
Storage & Preservation of Specimen Prior to Shipping	Specimens can be kept refrigerated if shipped in less than 72 hours of collection; otherwise specimen should be kept frozen. Store swabs in universal transport medium.
Transport Medium	Universal transport medium
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday-Thursday overnight to avoid weekend deliveries Refrigerated specimen should be sent on ice packs Frozen specimen should be sent on dry ice
Methodology	Real Time PCR
Turnaround Time	3 Days
Interferences & Limitations	Do not use cotton swabs with wooden shafts. Specimen should be acquired prior to antibiotic treatment. Improper specimen storage and handling may result in inconclusive or inaccurate results.
Additional Information	None
CDC Points of Contact	Jonas Winchell (404) 639-4921 Jwinchell@cdc.gov Maureen Diaz (404) 639-4534 mdiaz1@cdc.gov

Test Order

Respiratory Virus (Not Influenza) Special Study

CDC-10400

Synonym(s)	None
Pre-Approval Needed	**Erdman, Dean, (404) 639-3727, dde1@cdc.gov**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human and Animal
Acceptable Sample/ Specimen Type for Testing	To be determined
Minimum Volume Required	To be determined
Storage & Preservation of Specimen Prior to Shipping	To be determined
Transport Medium	To be determined
Specimen Labeling	To be determined
Shipping Instructions which Include Specimen Handling Requirements	To be determined
Methodology	
Turnaround Time	
Interferences & Limitations	To be determined
Additional Information	To be determined
CDC Points of Contact	Dean Erdman (404) 639-3727 dde1@cdc.gov Shifaq Kamili (404) 639-2799 sgk5@cdc.gov

Test Order

Respiratory Virus Molecular Detection (Not Influenza)

CDC-10401

Synonym(s)	Non-influenza Respiratory Virus
Pre-Approval Needed	**Erdman, Dean, (404) 639-3727, dde1@cdc.gov**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human and Animal
Acceptable Sample/ Specimen Type for Testing	Upper or lower respiratory tract specimens; pure culture isolate
Minimum Volume Required	0.25 mL
Storage & Preservation of Specimen Prior to Shipping	Refrigerate all specimens promptly after collection. If specimens can be shipped to CDC within 72 hours of collection, they should be kept refrigerated at 4°C and shipped on gel ice-packs. Freezing should be avoided if possible, as this will reduce virus infectivity. Specimens for virus culture should not be frozen at -20° C. If specimens must be held for >72 hours, they should be promptly frozen at -70°C and shipped on dry ice. Liquid specimens should be aliquoted into properly labeled, leak-proof, unbreakable screw cap vials. Samples should be collected and processed in a manner that prevents cross-contamination between specimens, including changing gloves between specimens.
Transport Medium	Swabs may be shipped in commercial viral transport media
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Ship specimen Monday -Thursday, overnight to avoid weekend deliveries Frozen specimen should be shipped on dry ice Refrigerated specimen should be shipped on cold packs
Methodology	Polymerase Chain Reaction (PCR)
Turnaround Time	3 Weeks
Interferences & Limitations	Use only sterile Dacron or rayon swabs with plastic shafts or if available, flocked swabs. Do NOT use calcium alginate swabs or swabs with wooden sticks, as they may contain substances that inactivate some viruses and inhibit some molecular assays.
Additional Information	None
CDC Points of Contact	Dean Erdman (404) 639-3727 dde1@cdc.gov Shifaq Kamili (404) 639-2799 sgk5@cdc.gov

Test Order

Rickettsia Molecular Detection

CDC-10402

Synonym(s)	Rickettsiosis, Rocky Mountain Spotted Fever (RMSF), Spotted fever group *Rickettsia* (SFG), Typhus group *Rickettsia* (TG)
Pre-Approval Needed	**None**
Supplemental Information Required	**Prior approval is required if the following information is not provided: - Suspected Agent - Travel and exposure history (including animals, arthropods, etc.) - Date of illness onset (and time if available) - Specimen type (e.g., serum, whole blood, tissue, etc.) - Test requested - Brief clinical summary (including details of antibiotic therapy and dates) and pertinent clinical findings**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Acute samples only, anticoagulated whole blood collected in Ethylenediaminetetraacetic acid (EDTA) treated tubes preferred; serum; fresh tissue biopsy
Minimum Volume Required	1.0 mL
Storage & Preservation of Specimen Prior to Shipping	Ideally keep specimen at a refrigerated temperature not frozen. If previously frozen, then keep specimen frozen.
Transport Medium	Ethylenediaminetetraacetic acid (EDTA) blood tubes for blood; tissue in a sample collection tube
Specimen Labeling	Patient name and date of birth
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday - Thursday, overnight to avoid weekend deliveries. Specimen should be shipped refrigerated on cold packs.
Methodology	Real Time Polymerase chain Reaction (PCR), Polymerase Chain Reaction (PCR), Sequencing
Turnaround Time	6 Weeks
Interferences & Limitations	Hemolysis in whole blood specimen will interfere with results. Multiple freeze thaw cycles and sample storage above refrigerated temperatures will interfere with proper nucleic acid extraction. If a specimen is drawn at convalescence it will reduce the chance of the target organism being present in blood. Avoid collection of blood specimen in heparin tubes.
Additional Information	The Rickettsial Zoonoses Branch Reference Diagnostic Laboratory aids State Laboratories in diagnosis of difficult samples/cases or if specialized tests are needed. Routine diagnostic samples should be sent to your State Laboratory or a commercial laboratory.
CDC Points of Contact	Cecilia Kato (404) 639-1075 ckato@cdc.gov Christopher Paddock (404) 639-1309 cdp9@cdc.gov

Test Order

Rickettsia Serology Spotted Fever Group (RMSF) Serology

CDC-10403

Synonym(s)	Spotted fever group Rickettsiosis, Rocky Mountain Spotted Fever (RMSF)
Pre-Approval Needed	**None**
Supplemental Information Required	**Prior approval is required if the following information is not provided: - Suspected Agent - Travel and exposure history (including animals, arthropods, etc.) - Date of illness onset (and time if available) - Specimen type (e.g., serum, whole blood, tissue, etc.) - Test requested - Brief clinical summary (including details of antibiotic therapy and dates) and pertinent clinical findings**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Serum -acute (during active stage of illness) -convalescent (2-4 weeks after acute stage)
Minimum Volume Required	1.0 mL
Storage & Preservation of Specimen Prior to Shipping	Ideally keep specimen at a refrigerated temperature not frozen. If previously frozen, then keep specimen frozen.
Transport Medium	Not Applicable
Specimen Labeling	Patient name and date of birth
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday - Thursday, overnight to avoid weekend deliveries. Specimen should be shipped refrigerated on cold packs.
Methodology	IFA (Immunofluorescence Assay)
Turnaround Time	6 Weeks
Interferences & Limitations	Multiple freeze thaw cycles may interfere with antigen binding. Use sterile technique to avoid contamination of sample as this may compromise the sample and interfere with the ability to get accurate results. Acute and convalescent serum is needed for accurate diagnosis and if unable to collect both please contact lab prior to shipping.
Additional Information	The Rickettsial Zoonoses Branch Reference Diagnostic Laboratory aids State Laboratories in diagnosis of difficult samples/cases or if specialized tests are needed. Routine diagnostic samples should be sent to your State Laboratory or a commercial laboratory.
CDC Points of Contact	Cecilia Kato (404) 639-1075 ckato@cdc.gov Christopher Paddock (404) 639-1309 cdp9@cdc.gov

Test Order

Rickettsia Serology Typhus Group Serology

CDC-10404

Synonym(s)	Typhus Group Rickettsiosis, Including epidemic Typhus and murine Typhus
Pre-Approval Needed	**None**
Supplemental Information Required	**Prior approval is required if the following information is not provided: - Suspected Agent - Travel and exposure history (including animals, arthropods, etc.) - Date of illness onset (and time if available) - Specimen type (e.g., serum, whole blood, tissue, etc.) - Test requested - Brief clinical summary (including details of antibiotic therapy and dates) and pertinent clinical findings**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Serum -acute (during active stage of illness) -convalescent (2-4 weeks after acute stage)
Minimum Volume Required	1.0 mL
Storage & Preservation of Specimen Prior to Shipping	Ideally keep specimen at a refrigerated temperature not frozen. If previously frozen, then keep specimen frozen.
Transport Medium	Not Applicable
Specimen Labeling	Patient name and date of birth
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday - Thursday, overnight to avoid weekend deliveries. Specimen should be shipped refrigerated on cold packs.
Methodology	Indirect Fluorescence Assay (IFA)
Turnaround Time	6 Weeks
Interferences & Limitations	Multiple freeze thaw cycles may interfere with antigen binding. Use sterile technique to avoid contamination of sample as this may compromise the sample and interfere with the ability to get accurate results. Acute and convalescent serum is needed for accurate diagnosis and if unable to collect both please contact laboratory prior to shipping.
Additional Information	The Rickettsial Zoonoses Branch Reference Diagnostic Laboratory aids State Laboratories in diagnosis of difficult samples/cases or if specialized tests are needed. Routine diagnostic samples should be sent to your State Laboratory or a commercial laboratory.
CDC Points of Contact	Cecilia Kato (404) 639-1075 ckato@cdc.gov Christopher Paddock (404) 639-1309 cdp9@cdc.gov

Test Order

Rickettsia Special Study

CDC-10405

Synonym(s)	Rickettsiosis, Rocky Mountain Spotted Fever (RMSF), Spotted fever group *Rickettsia* (SFG), Typhus group *Rickettsia* (TG)
Pre-Approval Needed	**Kato, Cecilia, (404) 639-1075, ckato@cdc.gov** **Paddock, Christopher, (404) 639-1309, cdp9@cdc.gov**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human, Animal, and Food/Environmental/Medical Devices/Biologics
Acceptable Sample/ Specimen Type for Testing	To be determined
Minimum Volume Required	To be determined
Storage & Preservation of Specimen Prior to Shipping	To be determined
Transport Medium	To be determined
Specimen Labeling	To be determined
Shipping Instructions which Include Specimen Handling Requirements	To be determined
Methodology	Molecular detection, Serology, Culture, Immunohistochemistry (IHC), Other
Turnaround Time	
Interferences & Limitations	To be determined
Additional Information	To be determined
CDC Points of Contact	Cecilia Kato (404) 639-1075 ckato@cdc.gov Christopher Paddock (404) 639-1309 cdp9@cdc.gov

Test Order

Rift Valley Fever (RVF) Identification

CDC-10406

Synonym(s)	RVF
Pre-Approval Needed	**Klena, John, (404) 639-0114, irc4@cdc.gov** **Rollin, Pierre, (404) 639-1124, pyr3@cdc.gov**
Supplemental Information Required	**See Supplemental Form**
Supplemental Form	**http://www.cdc.gov/ncezid/dhcpp/vspb/pdf/specimen-submission.pdf**
Performed on Specimens From	Human and Animal
Acceptable Sample/ Specimen Type for Testing	Frozen tissue, blood and serum
Minimum Volume Required	1 mL
Storage & Preservation of Specimen Prior to Shipping	Specimen must be placed in plastic screw capped vials, frozen to -70°C, and kept frozen until shipment. See link to supplemental submission form for specific information on various specimen types.
Transport Medium	Not Applicable
Specimen Labeling	Patient name, patient ID #, specimen type, date collected
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday-Thursday overnight to avoid weekend deliveries. Specimen should be shipped frozen on dry ice. See supplemental submission forms for further details. Do not ship specimen without prior consultation and approval.
Methodology	Molecular Typing, Polymerase Chain Reaction (PCR)
Turnaround Time	10 Days
Interferences & Limitations	Specimen must remain frozen; warming or freeze thawing reduces sensitivity. Heparin may cause interference with the molecular tests and should be avoided.
Additional Information	Critical specimens will take less than 4 days to turn around. See link to supplemental submission forms for detailed information.
CDC Points of Contact	John Klena (404) 639-0114 irc4@cdc.gov Pierre Rollin (404) 639-1124 pyr3@cdc.gov

Test Order

Rift Valley Fever (RVF) Serology

CDC-10407

Synonym(s)	RVF
Pre-Approval Needed	**Klena, John, (404) 639-0114, irc4@cdc.gov** **Rollin, Pierre, (404) 639-1124, pyr3@cdc.gov**
Supplemental Information Required	**See Supplemental Form**
Supplemental Form	http://www.cdc.gov/ncezid/dhcpp/vspb/pdf/specimen-submission.pdf
Performed on Specimens From	Human and Animal
Acceptable Sample/ Specimen Type for Testing	Blood and serum
Minimum Volume Required	1 mL
Storage & Preservation of Specimen Prior to Shipping	Specimen must be kept cold (at or below 4°C). If possible place specimen in plastic screw capped vials. See link to supplemental submission form for specific information on various specimen types.
Transport Medium	Not Applicable
Specimen Labeling	Patient name, patient ID #, specimen type, date collected
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday-Thursday overnight to avoid weekend deliveries. Specimen should be shipped on cold packs or dry ice if frozen. See supplemental submission forms for further details. Do not ship specimen without prior consultation and approval.
Methodology	ELISA
Turnaround Time	10 Days
Interferences & Limitations	Specimen must remain frozen; warming or freeze thawing reduces sensitivity
Additional Information	Critical specimens will take less than 4 days to turn around. See link to supplemental submission forms for detailed information.
CDC Points of Contact	John Klena (404) 639-0114 irc4@cdc.gov Pierre Rollin (404) 639-1124 pyr3@cdc.gov

Test Order

Rotavirus Detection

CDC-10408

Synonym(s)	Rotavirus Antigen EIA, Rotavirus Antigen ELISA, Rotavirus RT-PCR
Pre-Approval Needed	**None**
Supplemental Information Required	**Contact laboratory for supplemental forms**
Supplemental Form	**None**
Performed on Specimens From	None
Acceptable Sample/ Specimen Type for Testing	Human stool
Minimum Volume Required	0.25 g or 0.25 mL
Storage & Preservation of Specimen Prior to Shipping	Specimen should be kept either frozen at -20°C or colder or refrigerated at 4°C. Specimen tubes or cups must be packed inside of a leak proof secondary container. The secondary container needs to be packed inside an approved class B specimen shipping container (i.e. Fisher scientific cat# 22-130-431).
Transport Medium	Do not send specimen in bacterial or viral transport medium or a fixative
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Ship specimen Monday -Wednesday, overnight to avoid weekend deliveries Frozen specimen should be shipped on dry ice Refrigerated specimen should be shipped on cold packs Include a hardcopy list of specimens with your shipment. Please notify Mike Bowen (mkb6@cdc.gov) and Charity Perkins (vmf4@cdc.gov) when you are going to send specimens, and include the shipment tracking number if possible.
Methodology	Enzyme immunoassay (EIA), RT-PCR
Turnaround Time	14 Days
Interferences & Limitations	None
Additional Information	Contact laboratory for instructions to recover a limited sample from diaper material
CDC Points of Contact	Mike Bowen (404) 639-4922 mkb6@cdc.gov Charity Perkins (404) 639-0885 vmf4@cdc.gov

Test Order

Rotavirus Genotyping

CDC-10409

Synonym(s)	Rotavirus Real Time RT-PCR, Rotavirus RT-PCR, Rotavirus Sequencing
Pre-Approval Needed	**None**
Supplemental Information Required	**Contact laboratory for supplemental forms.**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Human stool
Minimum Volume Required	0.25 g or 0.25 mL
Storage & Preservation of Specimen Prior to Shipping	Specimen should be kept either frozen at -20°C or colder or refrigerated at 4°C. Specimen tubes or cups must be packed inside of a leak proof secondary container. The secondary container needs to be packed inside an approved class B specimen shipping container (i.e. Fisher scientific cat# 22-130-431).
Transport Medium	Do not send specimen in bacterial or viral transport medium or a fixative
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Ship specimen Monday -Wednesday, overnight to avoid weekend deliveries Frozen specimen should be shipped on dry ice Refrigerated specimen should be shipped on cold packs Include a hardcopy list of specimens with your shipment. Please notify Mike Bowen (mkb6@cdc.gov) and Charity Perkins (vmf4@cdc.gov) when you are going to send specimens, and include the shipment tracking number if possible.
Methodology	RT-PCR, Sequencing
Turnaround Time	4 Weeks
Interferences & Limitations	None
Additional Information	Contact laboratory for instructions to recover a limited sample from diaper material
CDC Points of Contact	Mike Bowen (404) 639-4922 mkb6@cdc.gov Charity Perkins (404) 639-0885 vmf4@cdc.gov

Test Order

Rubella Detection (PCR) and Genotyping

CDC-10242

Synonym(s)	German measles, three day measles
Pre-Approval Needed	**None**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Throat swab in viral medium, nasopharyngeal aspirate or swab, Urine, cataracts, lens aspirate, oral fluid, cerebrospinal fluid (CSF), dry blood spots, and tissue samples
Minimum Volume Required	Not Applicable
Storage & Preservation of Specimen Prior to Shipping	See: http://www.cdc.gov/rubella/lab/lab-specimens.html for collection and storage protocol
Transport Medium	Viral transport medium for swabs and appropriate culture medium. Make sure tubes are all in leak proof containers.
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition. Clearly label specimen type.
Shipping Instructions which Include Specimen Handling Requirements	The laboratory requests that the sender contacts the laboratory by email or phone before shipping Ship specimen Monday -Thursday overnight to avoid weekend deliveries Frozen specimen should be shipped on dry ice Refrigerated specimen should be shipped on cold packs
Methodology	Template production by RT-PCR, Real time RT-PCR, Viral culture, Genotyping by Nucleic acid sequencing
Turnaround Time	7 Days
Interferences & Limitations	See: http://www.cdc.gov/rubella/lab/index.html for information on the interferences and limitiations
Additional Information	Please include vaccination history, age, date of onset and sample collection. For additional information please refer to: http://www.cdc.gov/vaccines/pubs/surv-manual/index.html and http://www.cdc.gov/measles/lab-tools/index.html
CDC Points of Contact	Joe Icenogle (404) 639-4557 jci1@cdc.gov Emily Abernathy (404) 639-1249 efa9@cdc.gov

Test Order

Rubella Serology

CDC-10246

Synonym(s)	German measles, three day measles
Pre-Approval Needed	**None**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Serum and others upon consultation
Minimum Volume Required	200 uL
Storage & Preservation of Specimen Prior to Shipping	Serum should be kept refrigerated or frozen
Transport Medium	Not Applicable
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition. Clearly label specimen type.
Shipping Instructions which Include Specimen Handling Requirements	Ship specimen Monday -Thursday overnight to avoid weekend deliveries Refrigerated or frozen specimen should be shipped on cold packs Laboratory will instruct on how to ship for other specimen types
Methodology	Commercial capture IgM, Commercial indirect IgG
Turnaround Time	7 Days
Interferences & Limitations	IgM positive may not occur until 5 days post-rash onset
Additional Information	IgM and IgG assays are qualitative assays For outbreaks or immuno-compromised patients please contact laboratory prior to shipment
CDC Points of Contact	Joe Icenogle (404) 639-4557 jci1@cdc.gov Emily Abernathy (404) 639-1249 efa9@cdc.gov

Test Order

Rubella Serology (IgM and IgG) and Avidity

CDC-10249

Synonym(s)	German measles, three day measles
Pre-Approval Needed	**None**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Serum
Minimum Volume Required	200 uL
Storage & Preservation of Specimen Prior to Shipping	Serum should be kept refrigerated or frozen
Transport Medium	Not Applicable
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition. Clearly label specimen type.
Shipping Instructions which Include Specimen Handling Requirements	The laboratory requests that the sender contacts the laboratory by email or phone before shipping Ship specimen Monday -Thursday overnight to avoid weekend deliveries Frozen specimen should be shipped on dry ice Refrigerated specimen should be shipped on cold packs
Methodology	CDC IgG avidity assay
Turnaround Time	7 Days
Interferences & Limitations	Date of onset is necessary for accurate interpretation
Additional Information	Date of onset, vaccination status, age, date of collection and pregnancy status if applicable.
CDC Points of Contact	Joe Icenogle (404) 639-4557 jci1@cdc.gov Emily Abernathy (404) 639-1249 efa9@cdc.gov

Test Order

Rubella Special Study

CDC-10253

Synonym(s)	German measles, three day measles
Pre-Approval Needed	**Icenogle, Joe, (404) 639-4557, jci1@cdc.gov**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	To be determined
Minimum Volume Required	To be determined
Storage & Preservation of Specimen Prior to Shipping	To be determined
Transport Medium	To be determined
Specimen Labeling	To be determined
Shipping Instructions which Include Specimen Handling Requirements	To be determined
Methodology	
Turnaround Time	
Interferences & Limitations	To be determined
Additional Information	To be determined
CDC Points of Contact	Joe Icenogle (404) 639-4557 jci1@cdc.gov Emily Abernathy (404) 639-1249 efa9@cdc.gov

Test Order

Salmonella Identification and Serotyping

CDC-10110

Synonym(s)	*Salmonella* Typing
Pre-Approval Needed	**None**
Supplemental Information Required	**Prior approval is not required for human specimens; Please call for approval prior to sending, other specimen types. Provide any preliminary results available.**
Supplemental Form	**None**
Performed on Specimens From	Human, Animal, and Food/Environmental/Medical Devices/Biologics
Acceptable Sample/ Specimen Type for Testing	Isolates
Minimum Volume Required	Not Applicable
Storage & Preservation of Specimen Prior to Shipping	No Specific Requirements
Transport Medium	Ship cultures on nonselective nutrient or similar agar (TSA, HIA, etc.) in tubes with leak-proof screw cap closures. Agar plates are not acceptable.
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday-Thursday, overnight to avoid weekend deliveries Ship at ambient temperature in compliance with Federal and local guidelines
Methodology	Phenotypic identification, Phenotypic serotyping, Genetic identification, Genetic serotyping
Turnaround Time	8 Weeks
Interferences & Limitations	None
Additional Information	Turnaround times for routine isolates may be extended during major foodborne outbreak activities or due to limited availability of resources.
CDC Points of Contact	Susan Van Duyne (404) 639-0186 Mdv9@cdc.gov Patricia Fields (404) 639-1748 pif1@cdc.gov

Test Order

Salmonella serovar Typhi (only) serology

CDC-10453

Synonym(s)	Enteric Pathogen
Pre-Approval Needed	**Aubert, Rachael, (404) 639-3816, vrl7@cdc.gov** **Korth, Michael, (404) 639-2099, mqk8@cdc.gov**
Supplemental Information Required	**Date of illness onset, date of serum collection, clinical diagnosis. Indicate if patient is currently on antibiotics. Indicate if patient is suspect chronic carrier.**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Serum, paired serum preferred. Do not pool specimens.
Minimum Volume Required	200 uL (More preferred)
Storage & Preservation of Specimen Prior to Shipping	Maintain serum at 4°C (preferred); frozen specimens acceptable
Transport Medium	Separate serum from the clot and ship in a sterile labeled tube with the top tightly closed
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday-Thursday, overnight to avoid weekend deliveries. Please notify Rachael Aubert (vrl7@cdc.gov, (404) 639-3816) once specimens have been shipped to provide the tracking number. Ship with cold packs in compliance with federal and local guidelines
Methodology	Various methods utilized; Consultation required
Turnaround Time	3 Months
Interferences & Limitations	Plasma is not acceptable for typhoid testing
Additional Information	Paired serum specimens always preferred. Please send one tube per specimen submission form. Submit multiple forms if needed.
CDC Points of Contact	Rachael Aubert (404) 639-3816 vrl7@cdc.gov Michael Korth (404) 639-2099 mqk8@cdc.gov

Test Order

Salmonella Study

CDC-10109

Synonym(s)	None
Pre-Approval Needed	**Van Duyne, Susan, (404) 639-0186, mdv9@cdc.gov** **Fields, Patricia, (404) 639-1748, pif1@cdc.gov**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human, Animal, and Food/Environmental/Medical Devices/Biologics
Acceptable Sample/ Specimen Type for Testing	To be determined
Minimum Volume Required	To be determined
Storage & Preservation of Specimen Prior to Shipping	To be determined
Transport Medium	To be determined
Specimen Labeling	To be determined
Shipping Instructions which Include Specimen Handling Requirements	To be determined
Methodology	
Turnaround Time	
Interferences & Limitations	To be determined
Additional Information	To be determined
CDC Points of Contact	Susan Van Duyne (404) 639-0186 Mdv9@cdc.gov Patricia Fields (404) 639-1748 Pif1@cdc.gov

Test Order

Salmonella Subtyping

CDC-10108

Synonym(s)	*Salmonella* Typing
Pre-Approval Needed	**None**
Supplemental Information Required	**Prior approval is not required for human specimen, but is required for all other types of specimen.** **Indicate subtyping method(s) requested; provide PulseNet cluster code and PFGE pattern numbers if appropriate.**
Supplemental Form	**None**
Performed on Specimens From	Human, Animal, and Food/Environmental/Medical Devices/Biologics
Acceptable Sample/ Specimen Type for Testing	Isolates
Minimum Volume Required	Not Applicable
Storage & Preservation of Specimen Prior to Shipping	No Specific Requirements
Transport Medium	Ship cultures on nonselective nutrient or similar agar (TSA, HIA, etc.) in tubes with leak-proof screw cap closures. Agar plates are not acceptable.
Specimen Labeling	Not Applicable
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday-Thursday, overnight to avoid weekend deliveries Ship at ambient temperature in compliance with Federal and local guidelines
Methodology	Serotyping, PFGE, MLVA, AST
Turnaround Time	8 Weeks
Interferences & Limitations	None
Additional Information	Specify type of subtyping requested in 'Previous Laboratory Results' on back of form. Epidemiologic metadata, PulseNet cluster code, and PFGE pattern designation requested if available. Turn around time depends on the nature of subtyping performed; and, results are typically not reported directly back to the submitter, but deposited in surveillance databases. If the surveillance database is not accessible to submitters, results are posted on the PulseNet and OutbreakNet discussion board. Specific turn around time and a report are available upon request.
CDC Points of Contact	Susan Van Duyne (404) 639-0186 Mdv9@cdc.gov Patricia Fields (404) 639-1748 Pif1@cdc.gov

Test Order

SARS Molecular Detection

CDC-10412

Synonym(s)	SARS coronavirus
Pre-Approval Needed	**Erdman, Dean, (404) 639-3727, dde1@cdc.gov**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Nasopharyngeal wash/aspirates, nasopharyngeal swabs, oropharyngeal swabs, broncheoalveolar lavage, tracheal aspirate, pleural fluid tap, sputum, and post-mortem tissue. For more information go to http://www.cdc.gov/sars/guidance/F-lab/app4.html
Minimum Volume Required	0.25 mL
Storage & Preservation of Specimen Prior to Shipping	Refrigerate or freeze tubes after specimens are placed in them. If specimens will be examined within 48 hours after collection, they can be refrigerated. If specimens must be held longer than 48 hours, freeze them as soon as possible after collection. Although storage in an ultra-low freezer (-70°C) is preferable, storage in a home-type freezer (if properly set at -20°C) is acceptable for short periods. For more information go to http://www.cdc.gov/sars/guidance/F-lab/app4.html
Transport Medium	Swabs may be shipped in commercial viral transport media
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday-Thursday, overnight to avoid weekend deliveries http://www.cdc.gov/sars/lab/specimen.html
Methodology	Polymerase Chain Reaction (PCR), Sequencing
Turnaround Time	3 Days
Interferences & Limitations	Use only sterile Dacron or rayon swabs with plastic shafts or if available, flocked swabs. Do NOT use calcium alginate swabs or swabs with wooden sticks, as they may contain substances that inactivate some viruses and inhibit some molecular assays.
Additional Information	http://www.cdc.gov/sars/about/index.html http://www.cdc.gov/sars/guidance/F-lab/app5.html
CDC Points of Contact	Dean Erdman (404) 639-3727 dde1@cdc.gov Shifaq Kamili (404) 639-2799 sgk5@cdc.gov

Test Order

SARS Serology

CDC-10413

Synonym(s)	SARS-CoV, SARS-CoV EIA, SARS-CoV ELISA, SARS ELISA, SARS EIA
Pre-Approval Needed	**Haynes, Lia, (404) 639-4004, loh5@cdc.gov** **Erdman, Dean, (404) 639-3727, dde1@cdc.gov**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Serum (acute and convalescent) and plasma For more information go to http://www.cdc.gov/sars/guidance/F-lab/app4.html
Minimum Volume Required	200 uL
Storage & Preservation of Specimen Prior to Shipping	Collect whole blood in a serum separator tube. Allow the blood to clot, centrifuge briefly, and collect all the resulting sera in vials with external caps and internal O-ring seals. If there is no O-ring seal, then seal tightly with the available cap and secure with Parafilm. Collect whole blood in either EDTA tubes or in a clotting tube. For plasma, collect blood in EDTA tubes and place in vials with external caps and internal O-ring seals. Store plasma and serum at 4°C. Serum may be frozen.
Transport Medium	Not Applicable
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday-Thursday, overnight to avoid weekend deliveries Refrigerated specimen should be shipped on cold packs Frozen specimen should be shipped on dry ice http://www.cdc.gov/sars/lab/specimen.html
Methodology	ELISA
Turnaround Time	3 Days
Interferences & Limitations	Do not collect in heparin tubes
Additional Information	None
CDC Points of Contact	Lia Haynes (404) 639-4004 loh5@cdc.gov Dean Erdman (404) 639-3727 dde1@cdc.gov

Test Order

Schistosomiasis Serology

CDC-10466

Synonym(s)	*Schistosoma mansoni*, *Schistosoma haematobium*, *Schistosoma japonicum*; Bilharzia, parasite
Pre-Approval Needed	**None**
Supplemental Information Required	**Travel history REQUIRED, include other relevant risk factors; clinical symptoms, treatment and relevant lab results.**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Serum and Plasma
Minimum Volume Required	0.5 mL
Storage & Preservation of Specimen Prior to Shipping	No specific requirements
Transport Medium	Not Applicable
Specimen Labeling	Test subject to CLIA regulations require two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday – Thursday, overnight to avoid weekend deliveries. Ship specimen at room temperature, not on dry ice, as an etiologic agent.
Methodology	FAST-ELISA, Immunoblot, Western Blot, MAMA, HAMA, JAMA, Antibody Detection
Turnaround Time	21 Days
Interferences & Limitations	Substances known to interfere with immunoassays include: bilirubin, lipids, and hemoglobin
Additional Information	None
CDC Points of Contact	Isabel McAuliffe (404) 718-4100 ibm4@cdc.gov DPDx (404) 718-4120 dpdx@cdc.gov

Test Order

Seoul Virus Serology

CDC-10414

Synonym(s)	Hanta, HFRS, HPS
Pre-Approval Needed	**Klena, John, (404) 639-0114, irc4@cdc.gov** **Rollin, Pierre, (404) 639-1124, pyr3@cdc.gov**
Supplemental Information Required	**See Supplemental Form**
Supplemental Form	http://www.cdc.gov/ncezid/dhcpp/vspb/pdf/specimen-submission.pdf
Performed on Specimens From	Human and Animal
Acceptable Sample/ Specimen Type for Testing	Blood and serum
Minimum Volume Required	1 mL
Storage & Preservation of Specimen Prior to Shipping	Specimen must be kept cold (at or below 4°C). If possible place specimen in plastic screw capped vials. See link to supplemental submission form for specific information on various specimen types.
Transport Medium	Not Applicable
Specimen Labeling	Patient name, patient ID #, specimen type, date collected
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday-Thursday overnight to avoid weekend deliveries. Specimen should be shipped on cold packs or dry ice if frozen. See supplemental submission forms for further details. Do not ship specimen without prior consultation and approval.
Methodology	ELISA
Turnaround Time	10 Days
Interferences & Limitations	Specimen must remain frozen; warming or freeze thawing reduces sensitivity
Additional Information	Critical specimens will take less than 4 days to turn around. See link to supplemental submission forms for detailed information.
CDC Points of Contact	John Klena (404) 639-0114 irc4@cdc.gov Pierre Rollin (404) 639-1124 pyr3@cdc.gov

Test Order

Shiga Toxin-producing *E. coli* Isolation from Enrichment Broth

CDC-10105

Synonym(s)	STEC, *E. coli* O157
Pre-Approval Needed	**None**
Supplemental Information Required	**Only Stx+ broths that produce growth on subculture should be submitted. Consult with EDLB contact before sending other specimens. Provide any preliminary results available.**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Submit only broths that are positive for Shiga toxins (Stx1/Stx2) or the genes encoding these toxins and produce growth on subculture. Consult with Dr. Nancy Strockbine before sending other specimen types or fecal specimens in enrichment broth that are Stx+/stx+ but no growth of STEC on subculture.
Minimum Volume Required	5 mL (broth)
Storage & Preservation of Specimen Prior to Shipping	Maintain specimen at 4°C
Transport Medium	Not Applicable
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday-Thursday, overnight to avoid weekend deliveries Ship with cold packs in compliance with federal and local guidelines. Shiga toxin-positive broths should be shipped as Category A Infectious Substances.
Methodology	Isolation, Phenotypic Identification Including Serotyping, PCR Testing for Virulence Markers
Turnaround Time	8 Weeks
Interferences & Limitations	None
Additional Information	A final report for CDC-10105 will be issued for broths that are not confirmed as positive by PCR for STEC or from broths that are confirmed as positive by PCR but from which an STEC isolate can not be obtained. Broths from which an STEC is isolated will be reflexively assigned test CDC-10114 Escherichia and Shigella identification, serotyping, and virulence profiling, and a final report will be issued when results for CDC-10114 are complete. Consult with Dr. Nancy Strockbine if a preliminary report for CDC-10105 is needed.
CDC Points of Contact	Nancy Strockbine (404) 639-4186 nas6@cdc.gov Nancy Garrett (404) 639-1964 dgi3@cdc.gov Devon Stripling (404) 639-2251 euo4@cdc.gov

Test Order

Special Bacterial Pathogen Study

CDC-10147

Synonym(s)	None
Pre-Approval Needed	**McQuiston, John, (404) 639-0270, zje8@cdc.gov** **Whitney, Anne, (404) 639-1374, amw0@cdc.gov**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human and Food/Environmental/Medical Devices/Biologics
Acceptable Sample/ Specimen Type for Testing	To be determined
Minimum Volume Required	To be determined
Storage & Preservation of Specimen Prior to Shipping	To be determined
Transport Medium	To be determined
Specimen Labeling	To be determined
Shipping Instructions which Include Specimen Handling Requirements	To be determined
Methodology	
Turnaround Time	
Interferences & Limitations	To be determined
Additional Information	To be determined
CDC Points of Contact	John McQuiston (404) 639-0270 zje8@cdc.gov Anne Whitney (404) 639-1374 amw0@cdc.gov

Test Order

Staphylococcal Toxic Shock Syndrome Toxin (TSST-1)

CDC-10426

Synonym(s)	Staph Toxin, Toxic Shock Syndrome
Pre-Approval Needed	**None**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human, Animal, and Food/Environmental/Medical Devices/Biologics
Acceptable Sample/ Specimen Type for Testing	Pure culture isolate on suitable agar medium
Minimum Volume Required	Not Applicable
Storage & Preservation of Specimen Prior to Shipping	Isolate should be stored at room temperature
Transport Medium	Pure culture isolate on suitable agar medium
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Ship specimen Monday -Thursday overnight to avoid weekend deliveries at room temperature as an etiologic agent.
Methodology	16S sequencing, MALDI-TOF, Phenotypic Testing, SEA - SHE, PVL
Turnaround Time	28 Days
Interferences & Limitations	None
Additional Information	SEA-SHE and PVL testing performed only with prior approval
CDC Points of Contact	David Lonsway (404) 639-2825 Dlonsway@cdc.gov Kamile Rasheed (404) 639-3247 jkr1@cdc.gov

Test Order

Staphylococcus - *Micrococcus* Identification

CDC-10226

Synonym(s)	Staph, *Micrococcus*, Kocuria Identification
Pre-Approval Needed	**None**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human, Animal, and Food/Environmental/Medical Devices/Biologics
Acceptable Sample/ Specimen Type for Testing	Pure culture isolate on suitable agar medium
Minimum Volume Required	Not Applicable
Storage & Preservation of Specimen Prior to Shipping	Isolate should be stored at room temperature
Transport Medium	Pure culture isolate on suitable agar medium
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Ship specimen Monday -Thursday overnight to avoid weekend deliveries at room temperature as an etiologic agent.
Methodology	16S Sequencing, MALDI-TOF, Phenotypic Testing
Turnaround Time	28 Days
Interferences & Limitations	None
Additional Information	None
CDC Points of Contact	David Lonsway (404) 639-2825 Dlonsway@cdc.gov Valerie Albrecht (404) 639-4552 gpy8@cdc.gov

Test Order

Staphylococcus and MRSA Outbreak Strain Typing

CDC-10230

Synonym(s)	Staph Typing, MRSA Typing, Staphylococcal Typing
Pre-Approval Needed	**Rasheed, Kamile, (404) 639-3247, JRasheed@cdc.gov** **Albrecht, Valerie, (404) 639-4552, gpy8@cdc.gov**
Supplemental Information Required	**Prior approval and Epidemiologic consultation required**
Supplemental Form	**None**
Performed on Specimens From	Human, Animal, and Food/Environmental/Medical Devices/Biologics
Acceptable Sample/ Specimen Type for Testing	Pure culture isolate on suitable agar medium. Additional specimen types upon consultation with laboratory.
Minimum Volume Required	Not Applicable
Storage & Preservation of Specimen Prior to Shipping	Isolate should be stored at room temperature
Transport Medium	Pure culture isolate on suitable agar medium or frozen in TSB plus glycerol
Specimen Labeling	Include date of isolation and unique specimen identifier
Shipping Instructions which Include Specimen Handling Requirements	Ship specimen Monday -Thursday overnight to avoid weekend deliveries at room temperature as an etiologic agent.
Methodology	16S Sequencing, MALDI-TOF, Phenotypic Testing, Molecular Strain Typing
Turnaround Time	28 Days
Interferences & Limitations	None
Additional Information	Not CLIA compliant testing; for epidemiologic purposes only
CDC Points of Contact	Kamile Rasheed (404) 639-3247 JRasheed@cdc.gov Valerie Albrecht (404) 639-4552 gpy8@cdc.gov

Test Order

Staphylococcus aureus Detection - Foodborne Outbreak

CDC-10113

Synonym(s)	None
Pre-Approval Needed	**Luquez, Carolina, (404) 639-0896, fry6@cdc.gov Gomez, Gerry, (404) 639-0537, goe4@cdc.gov**
Supplemental Information Required	**Only specimens from foodborne outbreaks accepted. Consult with EDLB contact before sending specimens. Provide any preliminary results if available.**
Supplemental Form	**None**
Performed on Specimens From	Human and Food/Environmental/Medical Devices/Biologics
Acceptable Sample/ Specimen Type for Testing	Isolates, vomitus, stool, food. Only specimens from foodborne outbreaks accepted. Consult with Carolina Luquez and Gerry Gomez before sending specimens.
Minimum Volume Required	25 g (food), 10 g (vomitus, stool)
Storage & Preservation of Specimen Prior to Shipping	Maintain food, vomitus and stool at 4°C
Transport Medium	Not Applicable
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday-Thursday, overnight to avoid weekend deliveries. Please notify Carolina Luquez (fry6@cdc.gov) and Gerry Gomez (goe4@cdc.gov) once specimens have been shipped to provide the tracking number. Ship with cold packs in compliance with federal and local guidelines
Methodology	Toxin Detection in Food, Culture, PCR
Turnaround Time	2 Months
Interferences & Limitations	None
Additional Information	Direct toxin detection requires food samples
CDC Points of Contact	Carolina Luquez (404) 639-0896 fyr6@cdc.gov Gerry Gomez (404) 639-0537 goe4@cdc.gov

Test Order

STD Bacterial Molecular Diagnostic Evaluation

CDC-10178

Synonym(s)	Sexually Transmitted Disease
Pre-Approval Needed	**Trees, David, (404) 639-2134, dlt1@cdc.gov** **Johnson, Steve, (404) 639-2879, sbj1@cdc.gov**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Gonococcal bacterial culture
Minimum Volume Required	Not Applicable
Storage & Preservation of Specimen Prior to Shipping	Store culture at -70°C in TSA with 20% glycerol medium
Transport Medium	TSA with 20% glycerol
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday - Thursday, overnight to avoid weekend deliveries. Specimen should be shipped on dry ice, as an etiologic agent.
Methodology	Molecular cloning, PCR, Whole genome sequencing
Turnaround Time	12 Weeks
Interferences & Limitations	None
Additional Information	Please provide information on any antibiotics the patient may have been treated with
CDC Points of Contact	David Trees (404) 639-2134 dlt1@cdc.gov Steve Johnson (404) 639-2879 sbj1@cdc.gov

Test Order

STD International QA – *N. gonorrhoeae*, *C. trachomatis*, *M. genitalium*, *T. vaginalis*

CDC-10175

Synonym(s)	Sexually Transmitted Disease
Pre-Approval Needed	**Cheng, Cheng, (404) 639-3154, cyc1@cdc.gov** **Chi, Kai, (404) 639-0694, krc2@cdc.gov**
Supplemental Information Required	**Determined upon consultation**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Urine, oral pharynx swabs, cervical swabs, vaginal swabs, and rectal swabs collected on any commercially available product, and other specimen types upon consultation with laboratory
Minimum Volume Required	Not Applicable
Storage & Preservation of Specimen Prior to Shipping	Swabs must be kept frozen
Transport Medium	Should be transported on commercial Nucleic Acid Amplification Test (NAAT) medium
Specimen Labeling	Please include country of origin, de-linked identifier and date of collection
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday – Thursday, overnight to avoid weekend deliveries. Specimen should be shipped on dry ice, as an etiologic agent.
Methodology	PCR
Turnaround Time	12 Weeks
Interferences & Limitations	None
Additional Information	None
CDC Points of Contact	Cheng Chen (404) 639-3154 cyc1@cdc.gov Kai Chi (404) 639-0694 krc2@cdc.gov

Test Order

Strep ABCs Surveillance Study

CDC-10218

Synonym(s)	None
Pre-Approval Needed	**McGee, Lesley, (404) 639-0455, afi4@cdc.gov** **Beall, Bernard, (404) 639-1237, bbeall@cdc.gov**
Supplemental Information Required	**See Supplemental Form**
Supplemental Form	**http://www.cdc.gov/abcs/downloads/ABCs-case-rpt-form.pdf**
Performed on Specimens From	Human, Animal, and Food/Environmental/Medical Devices/Biologics
Acceptable Sample/ Specimen Type for Testing	Sterile site Isolates of GAS, GBS and *S.pneumoniae* that meet the ABCs inclusion criteria
Minimum Volume Required	Not applicable
Storage & Preservation of Specimen Prior to Shipping	For isolates, store on blood or chocolate agar, in transport media or as a frozen glycerol stock; additional details and directions will be provided upon consultation.
Transport Medium	Not Applicable
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition. Note: surveillance studies may label specimens according to protocol
Shipping Instructions which Include Specimen Handling Requirements	Ship specimen Monday -Thursday, overnight to avoid weekend deliveries Frozen specimen should be shipped on dry ice Refrigerated specimen should be shipped on cold packs
Methodology	Phenotypic Testing, Molecular Testing
Turnaround Time	8 Weeks
Interferences & Limitations	Based on consultation
Additional Information	None
CDC Points of Contact	Lesley McGee (404) 639-0455 afi4@cdc.gov Bernard Beall (404) 639-1237 bbeall@cdc.gov

Test Order

Streptococcus (Beta Hemolytic Strep) Typing

CDC-10216

Synonym(s)	GAS typing, GBS typing, other beta hemolytic strep, Group A Strep, Group B Strep
Pre-Approval Needed	**Beall, Bernard, (404) 639-1237, bbeall@cdc.gov**
Supplemental Information Required	**See Supplemental Form**
Supplemental Form	http://www.cdc.gov/streplab/other-streptococci-qa.html
Performed on Specimens From	Human, Animal, and Food/Environmental/Medical Devices/Biologics
Acceptable Sample/ Specimen Type for Testing	Isolates and clinical/environmental specimens and others as approved upon consultation
Minimum Volume Required	Not Applicable
Storage & Preservation of Specimen Prior to Shipping	For isolates, store on blood or chocolate agar, in transport media or as a frozen glycerol stock; additional details and directions will be provided upon consultation.
Transport Medium	Dependent on specimen type to be determined upon consultation
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Ship specimen Monday -Thursday, overnight to avoid weekend deliveries Frozen specimen should be shipped on dry ice Refrigerated specimen should be shipped on cold packs
Methodology	Phenotypic Testing, Molecular Testing
Turnaround Time	2 Weeks
Interferences & Limitations	Based on consultation
Additional Information	Please complete questionnaire on website
CDC Points of Contact	Bernard Beall (404) 639-1237 bbeall@cdc.gov Patricia Shewmaker (404) 639-4826 paw3@cdc.gov

Test Order

Streptococcus (Catalase negative, Gram Positive Coccus) Identification

CDC-10213

Synonym(s)	Streptococci, enterococci, viridans streptococci
Pre-Approval Needed	**Beall, Bernard, (404) 639-1237, bbeall@cdc.gov** **Shewmaker, Patricia, (404) 639-4826, paw3@cdc.gov**
Supplemental Information Required	**See Supplemental Form**
Supplemental Form	http://www.cdc.gov/streplab/other-streptococci-qa.html
Performed on Specimens From	Human, Animal, and Food/Environmental/Medical Devices/Biologics
Acceptable Sample/ Specimen Type for Testing	Isolates and clinical/environmental specimens and others as approved upon consultation
Minimum Volume Required	Not Applicable
Storage & Preservation of Specimen Prior to Shipping	For isolates, store on blood or chocolate agar, in transport media or as a frozen glycerol stock; additional details and directions will be provided upon consultation.
Transport Medium	Dependent on specimen type to be determined upon consultation
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Ship specimen Monday -Thursday, overnight to avoid weekend deliveries Frozen specimen should be shipped on dry ice Refrigerated specimen should be shipped on cold packs
Methodology	Phenotypic Testing, Molecular Testing
Turnaround Time	8 Weeks
Interferences & Limitations	Based on consultation
Additional Information	Please complete questionnaire on website
CDC Points of Contact	Bernard Beall (404) 639-1237 bbeall@cdc.gov Patricia Shewmaker (404) 639-4826 paw3@cdc.gov

Test Order

Streptococcus (Catalase negative, Gram Positive Coccus) Identification and AST

CDC-10214

Synonym(s)	Streptococci, enterococci, viridans streptococci
Pre-Approval Needed	**Beall, Bernard, (404) 639-1237, BBEALL@cdc.gov** **Shewmaker, Patricia, (404) 639-4826, paw3@cdc.gov**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human, Animal, and Food/Environmental/Medical Devices/Biologics
Acceptable Sample/ Specimen Type for Testing	Pure culture isolate on a suitable agar slant medium; Prior consultation required for other sample/specimen types
Minimum Volume Required	Not applicable
Storage & Preservation of Specimen Prior to Shipping	Keep refrigerated if cannot ship immediately
Transport Medium	Suitable agar slant medium (example: blood or chocolate); Frozen glycerol stock is also acceptable.
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition. Note: surveillance studies may label specimens according to protocol
Shipping Instructions which Include Specimen Handling Requirements	Ship specimen Monday -Thursday, overnight to avoid weekend deliveries Frozen specimen should be shipped on dry ice Refrigerated specimen should be shipped on cold packs At room temperature for any etiologic agents
Methodology	Phenotypic Testing, Molecular Testing, Broth microdilution MIC
Turnaround Time	8 Weeks
Interferences & Limitations	None
Additional Information	Preliminary susceptibility results may be available within 28 days or less. If susceptibility has been performed, indicate the method and results. Date of specimen collection and original submitter.
CDC Points of Contact	Bernard Beall (404) 639-1237 BBEALL@cdc.gov Patricia Shewmaker (404) 639-2825 paw3@cdc.gov David Lonsway (404) 639- 2825 dul7@cdc.gov

Test Order

Streptococcus pneumoniae Typing

CDC-10215

Synonym(s)	Pneumococcus Serotyping
Pre-Approval Needed	**Beall, Bernard, (404) 639-1237, bbeall@cdc.gov**
Supplemental Information Required	**Online form required for pre-approval: http://www.cdc.gov/streplab/s-pneumoniae-qa.html** **If you have questions, contact Bernard Beall, bbeall@cdc.gov, 404-639-1237**
Supplemental Form	**None**
Performed on Specimens From	Human, Animal, and Food/Environmental/Medical Devices/Biologics
Acceptable Sample/ Specimen Type for Testing	Isolates and clinical/environmental specimens and others as approved upon consultation
Minimum Volume Required	Not Applicable
Storage & Preservation of Specimen Prior to Shipping	For isolates, store on blood or chocolate agar, in transport media or as a frozen glycerol stock; additional details and directions will be provided upon consultation.
Transport Medium	Dependent on specimen type to be determined upon consultation
Specimen Labeling	Test subject to CLIA regulations require two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Ship specimen Monday -Thursday, overnight to avoid weekend deliveries Frozen specimen should be shipped on dry ice Refrigerated specimen should be shipped on cold packs
Methodology	Phenotypic Testing, Molecular Testing
Turnaround Time	2 Weeks
Interferences & Limitations	Based on consultation
Additional Information	Please complete questionnaire on website
CDC Points of Contact	Bernard Beall (404) 639-1237 bbeall@cdc.gov Lesley McGee (404) 639-0455 afi4@cdc.gov

Test Order

Streptococcus Study

CDC-10217

Synonym(s)	None
Pre-Approval Needed	**Beall, Bernard, (404) 639-1237, bbeall@cdc.gov** **McGee, Lesley, (404) 639-0455, afi4@cdc.gov**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human, Animal, and Food/Environmental/Medical Devices/Biologics
Acceptable Sample/ Specimen Type for Testing	Isolates and clinical/environmental specimens and others as approved upon consultation
Minimum Volume Required	To be determined
Storage & Preservation of Specimen Prior to Shipping	For isolates blood or chocolate agar; transport media or frozen glycerol stock; additional details and directions will be provided upon consultation.
Transport Medium	To be determined
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition. Note: surveillance studies may label specimens according to protocol
Shipping Instructions which Include Specimen Handling Requirements	To be determined
Methodology	Phenotypic Testing, Molecular Testing
Turnaround Time	8 Weeks
Interferences & Limitations	To be determined
Additional Information	To be determined
CDC Points of Contact	Bernard Beall (404) 639-1237 bbeall@cdc.gov Lesley McGee (404) 639-0455 afi4@cdc.gov

Test Order

Strongyloidiasis Serology

CDC-10467

Synonym(s)	Strongyloidiasis, *Strongyloides stercoralis,* parasite
Pre-Approval Needed	**None**
Supplemental Information Required	**Exposure and travel history, include other relevant risk factors; clinical symptoms, treatment and relevant lab results.**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Serum or Plasma
Minimum Volume Required	0.5 mL
Storage & Preservation of Specimen Prior to Shipping	No specific requirements
Transport Medium	Not Applicable
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday – Thursday, overnight to avoid weekend deliveries. Ship specimen at room temperature, not on dry ice, as an etiologic agent.
Methodology	EIA, ELISA, Antibody Detection
Turnaround Time	18 Days
Interferences & Limitations	Substances known to interfere with immunoassays include: bilirubin, lipids, and hemoglobin
Additional Information	None
CDC Points of Contact	Isabel McAuliffe (404) 718-4100 ibm4@cdc.gov DPDx (404) 718-4120 dpdx@cdc.gov

Test Order

Syphilis Serology

CDC-10173

Synonym(s)	Treponemal and non-treponemal
Pre-Approval Needed	**None**
Supplemental Information Required	**Need to supply date of birth**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Serum (preferred), CSF, and/or plasma (possible to preform test but not preferred)
Minimum Volume Required	1 mL (for serum or plasma)
Storage & Preservation of Specimen Prior to Shipping	Serum and Plasma can be stored at 4°C unless for more than 4-5 days it should be frozen. CSF should be stored frozen at -70°C.
Transport Medium	None
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday - Thursday, overnight to avoid weekend deliveries. Frozen specimen should be shipped on dry ice and refrigerated specimen should be shipped on cold packs, as an etiologic agent.
Methodology	RPR, TPPA, TrepSURE, CSF-VDRL
Turnaround Time	2 Weeks
Interferences & Limitations	Avoid freeze-thaw cycles as this can affect test results
Additional Information	None
CDC Points of Contact	Yetunde Fakile (404) 639-3784 yfakile@cdc.gov Andre Hopkins (404) 639-0731 Fvn4@cdc.gov Yongcheng Sun (404) 639-2905 Yas2@cdc.gov

Test Order

Tick Borne Encephalitis (TBE) Identification

CDC-10415

Synonym(s)	None
Pre-Approval Needed	**Klena, John, (404) 639-0114, irc4@cdc.gov** **Rollin, Pierre, (404) 639-1124, pyr3@cdc.gov**
Supplemental Information Required	**See Supplemental Form**
Supplemental Form	http://www.cdc.gov/ncezid/dhcpp/vspb/pdf/specimen-submission.pdf
Performed on Specimens From	Human and Animal
Acceptable Sample/ Specimen Type for Testing	Frozen tissue, blood and serum
Minimum Volume Required	1 mL
Storage & Preservation of Specimen Prior to Shipping	Specimen must be placed in plastic screw capped vials, frozen to -70°C, and kept frozen until shipment. See link to supplemental submission form for specific information on various specimen types.
Transport Medium	Not Applicable
Specimen Labeling	Patient name, patient ID #, specimen type, date collected
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday-Thursday overnight to avoid weekend deliveries. Specimen should be shipped frozen on dry ice. See supplemental submission forms for further details. Do not ship specimen without prior consultation and approval.
Methodology	Molecular Typing, Polymerase Chain Reaction (PCR)
Turnaround Time	10 Days
Interferences & Limitations	Specimen must remain frozen; warming or freeze thawing reduces sensitivity. Heparin may cause interference with the molecular tests and should be avoided.
Additional Information	Critical specimens will take less than 4 days to turn around. See link to supplemental submission forms for detailed information.
CDC Points of Contact	John Klena (404) 639-0114 irc4@cdc.gov Pierre Rollin (404) 639-1124 pyr3@cdc.gov

Test Order

Tick Borne Encephalitis (TBE) Serology

CDC-10416

Synonym(s)	None
Pre-Approval Needed	**Klena, John, (404) 639-0114, irc4@cdc.gov** **Rollin, Pierre, (404) 639-1124, pyr3@cdc.gov**
Supplemental Information Required	**See Supplemental Form**
Supplemental Form	http://www.cdc.gov/ncezid/dhcpp/vspb/pdf/specimen-submission.pdf
Performed on Specimens From	Human and Animal
Acceptable Sample/ Specimen Type for Testing	CSF, blood and serum
Minimum Volume Required	1 mL
Storage & Preservation of Specimen Prior to Shipping	Specimen must be kept cold (at or below 4°C). If possible place specimen in plastic screw capped vials. See link to supplemental submission form for specific information on various specimen types.
Transport Medium	Not Applicable
Specimen Labeling	Patient name, patient ID #, specimen type, date collected
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday-Thursday overnight to avoid weekend deliveries. Specimen should be shipped on cold packs or dry ice if frozen. See supplemental submission forms for further details. Do not ship specimen without prior consultation and approval.
Methodology	ELISA
Turnaround Time	10 Days
Interferences & Limitations	Specimen must remain frozen; warming or freeze thawing reduces sensitivity
Additional Information	Critical specimens will take less than 4 days to turn around. See link to supplemental submission forms for detailed information.
CDC Points of Contact	John Klena (404) 639-0114 irc4@cdc.gov Pierre Rollin (404) 639-1124 pyr3@cdc.gov

Test Order

Toxocariasis Serology

CDC-10468

Synonym(s)	Larva migrans, Toxocariasis, *Toxocara canis*, *Toxocara cati,* parasite
Pre-Approval Needed	**None**
Supplemental Information Required	**Exposure and travel history, include other relevant risk factors; clinical symptoms, treatment and relevant lab results.**
Supplemental Form	**None**
Performed on Specimens From	None
Acceptable Sample/ Specimen Type for Testing	Serum, plasma, or vitreous fluid
Minimum Volume Required	0.5
Storage & Preservation of Specimen Prior to Shipping	No specific requirements
Transport Medium	Not Applicable
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday – Thursday, overnight to avoid weekend deliveries. Ship specimen at room temperature, not on dry ice, as an etiologic agent.
Methodology	EIA, ELISA, Antibody Detection
Turnaround Time	18 Days
Interferences & Limitations	Substances known to interfere with immunoassays include: bilirubin, lipids, and hemoglobin
Additional Information	None
CDC Points of Contact	Isabel McAuliffe (404) 718-4100 ibm4@cdc.gov DPDx (404) 718-4120 dpdx@cdc.gov

Test Order

Toxoplasmosis Special Study

CDC-10492

Synonym(s)	None
Pre-Approval Needed	**Rivera, Hilda, (404) 718-4100, igi2@cdc.gov** **DPDx, , (404) 718-4120, dpdx@cdc.gov**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	None
Acceptable Sample/ Specimen Type for Testing	To be determined
Minimum Volume Required	To be determined
Storage & Preservation of Specimen Prior to Shipping	To be determined
Transport Medium	To be determined
Specimen Labeling	To be determined
Shipping Instructions which Include Specimen Handling Requirements	To be determined
Methodology	
Turnaround Time	
Interferences & Limitations	To be determined
Additional Information	To be determined
CDC Points of Contact	Hilda Rivera (404) 718-4100 igi2@cdc.gov DPDx (404) 718-4120 dpdx@cdc.gov

Test Order

Treponema pallidum Molecular Detection

CDC-10176

Synonym(s)	Syphilis
Pre-Approval Needed	**Pillay, Allan, (404) 639-2140, apillay@cdc.gov** **Chi, Kai, (404) 639-0694, krc2@cdc.gov**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Swab of an ulcer or skin lesion, blood collected in an EDTA tube, body fluids, frozen tissue and/or Formalin-Fixed, Paraffin-Embedded (FFPE) tissue
Minimum Volume Required	Not Applicable
Storage & Preservation of Specimen Prior to Shipping	Specimens should be frozen unless FFPE tissue which can be stored at room temperature
Transport Medium	Should be transported on commercial Nucleic Acid Amplification Test (NAAT) medium
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday - Thursday, overnight to avoid weekend deliveries. Frozen specimen should be shipped on dry ice, refrigerated specimen should be shipped on cold packs and FFPE can be shipped at room temperature, as an etiologic agent.
Methodology	PCR
Turnaround Time	2 Weeks
Interferences & Limitations	None
Additional Information	None
CDC Points of Contact	Allan Pillay (404) 639-2140 apillay@cdc.gov Kai Chi (404) 639-0694 krc2@cdc.gov

Test Order

Treponema pallidum Molecular Typing

CDC-10177

Synonym(s)	*Treponema pallidum* Genotyping, *Treponema pallidum* Strain Typing, Syphilis Typing
Pre-Approval Needed	**Pillay, Allan, (404) 639-2140, apillay@cdc.gov** **Chen, Cheng, (404) 639-3154, cyc1@cdc.gov**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Swab of an ulcer or skin lesion, blood collected in an EDTA tube, body fluids, frozen tissue and/or Formalin-Fixed, Paraffin-Embedded (FFPE) tissue
Minimum Volume Required	Not Applicable
Storage & Preservation of Specimen Prior to Shipping	Specimens should be frozen except for FFPE tissue, which can be stored at room temperature
Transport Medium	Should be transported on commercial Nucleic Acid Amplification Test (NAAT) medium
Specimen Labeling	Test subject to CLIA regulations require two patient identifiers on the specimen container and the test requisition. Also, include date collected.
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday – Thursday, overnight to avoid weekend deliveries. Frozen specimen should be shipped on dry ice, refrigerated specimen should be shipped on cold packs and FFPE can be shipped at room temperature, as an etiologic agent.
Methodology	PCR, Sequencing, RFLP
Turnaround Time	4 Weeks
Interferences & Limitations	None
Additional Information	None
CDC Points of Contact	Allan Pillay (404) 639-2140 apillay@cdc.gov Cheng Chen (404) 639-3154 cyc1@cdc.gov

Test Order

Trichinellosis Serology

CDC-10470

Synonym(s)	Trichinosis, *Trichinella spiralis,* parasite
Pre-Approval Needed	**None**
Supplemental Information Required	**Exposure and travel history, include other relevant risk factors (consumption of raw or undercooked pork or game meat); clinical symptoms, treatment and relevant lab results.**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Serum or Plasma
Minimum Volume Required	0.5 mL
Storage & Preservation of Specimen Prior to Shipping	No specific requirements
Transport Medium	Not Applicable
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday – Thursday, overnight to avoid weekend deliveries. Ship specimen at room temperature, not on dry ice, as an etiologic agent.
Methodology	EIA, ELISA, Antibody Detection
Turnaround Time	18 Days
Interferences & Limitations	Substances known to interfere with immunoassays include: bilirubin, lipids, and hemoglobin
Additional Information	None
CDC Points of Contact	Isabel McAuliffe (404) 719-4100 ibm4@cdc.gov DPDx (404) 718-4120 dpdx@cdc.gov

Test Order

Trichomonas Susceptibility

CDC-10239

Synonym(s)	*Trichomonas*, trich, parasite
Pre-Approval Needed	**None**
Supplemental Information Required	**Please fill out the supplemental form provided in the specimen collection kit. Please call 404-718-4141 or 404-718-4142 to request a kit with media and forms. Alternatively, send mailing address and phone number to was4@cdc.gov to request a kit.**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Must be a live culture. Use vaginal swab to inoculate media.
Minimum Volume Required	Not Applicable
Storage & Preservation of Specimen Prior to Shipping	Do not freeze specimen. If the specimen cannot be sent within 24-48 hours of collection, it is better to wait to collect the specimen.
Transport Medium	InPouch TV (Commercial product) or Diamond's TYM Please call 404-718-4141 or 404-718-4142 to request a kit with media and forms. Alternatively, send mailing address and phone number to was4@cdc.gov to request a kit.
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	The isolate should be sent to CDC by overnight courier (not USPS) on the same day it is obtained from the patient. Insure the InPouch is properly closed and place it in the mailing container that they arrived in and send by OVERNIGHT delivery service (recommended: Federal Express) to: Pete Augostini CDC/Parasitic Disease Branch 1600 Clifton Rd. NE, MS D65 Bldg. 23, 10th Floor, Rm. 108 Atlanta, GA 30329-4081 678-860-6128 NOTE: a) Delivery to the reference laboratory within 24 hours is essential to ensure organism survival. B) The laboratory can only accept sample delivery Monday through Friday. Please plan to ship your samples Monday, Tuesday, Wednesday, or Thursday in order for the laboratory to receive the overnight delivery the next day. C) While we provide the testing as a no-cost service, we do not have the funds to pay for shipment of the organism. Therefore, please do not mark "recipient" as the party responsible for payment of shipment costs. If this occurs, we will refer the shipping company back to you for payment of costs. Please include the metronidazole treatment history and request forms with your sample.
Methodology	Antimicrobial susceptibility
Turnaround Time	7 Weeks

Test Order

Trichomonas Susceptibility

CDC-10239

Interferences & Limitations	None
Additional Information	None
CDC Points of Contact	Evan Secor (404) 718-4141 was4@cdc.gov

Test Order

Trypanosoma cruzi Molecular Detection

CDC-10493

Synonym(s)	Chagas, American Trypanosomiasis, parasite, triatomine, kissing bug
Pre-Approval Needed	**None**
Supplemental Information Required	**Please include detailed information where the insect was found (kitchen, bed, porch, etc.).**
Supplemental Form	**None**
Performed on Specimens From	Animal
Acceptable Sample/ Specimen Type for Testing	Triatomine insect
Minimum Volume Required	N/A
Storage & Preservation of Specimen Prior to Shipping	Dry or in 70% ethanol
Transport Medium	None or in 70% ethanol
Specimen Labeling	One submitter identifier or SPHL ID on the specimen container and date of collection.
Shipping Instructions which Include Specimen Handling Requirements	Place insect in a crush-proof container with paper towel cushioning for dry specimens or in 70% ethanol with no cushioning. Ship at ambient temperature in compliance with local and Federal guidelines. Send by regular mail or overnight Monday-Thursday to avoid weekend deliveries.
Methodology	Conventional PCR
Turnaround Time	3 Weeks
Interferences & Limitations	None
Additional Information	None
CDC Points of Contact	Gena Lawrence (404) 718-4315 geg7@cdc.gov Alice Sutcliffe (404) 718-4326 gok0@cdc.gov

Test Order

Varicella Zoster Virus (VZV) Avidity

CDC-10256

Synonym(s)	Chicken pox, shingles
Pre-Approval Needed	**Schmid, Scott, (404) 639-0066, dss1@cdc.gov** **Radford, Kay, (404) 639-2192, (404) 639-2192**
Supplemental Information Required	**See Supplemental Form.** **Please Note: Persons with disabilities experiencing problems accessing this document should contact CDC-INFO by either completing the form at http://www.cdc.gov/cdc-info/requestform.html and use subject "508 Accommodation PR#31", or by calling 800-232-4636 (TTY number: 888-232-6348) and ask for 508 Accommodation PR#31.**
Supplemental Form	**http://www.cdc.gov/shingles/downloads/specimen_collection_form.pdf**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Serum or plasma
Minimum Volume Required	200 uL
Storage & Preservation of Specimen Prior to Shipping	Keep specimen either refrigerated or frozen
Transport Medium	Not Applicable
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Ship overnight Monday - Thursday, with cold packs or dry ice as an etiologic agent.
Methodology	IgG avidity
Turnaround Time	1 Week
Interferences & Limitations	None
Additional Information	None
CDC Points of Contact	Scott Schmid (404) 639-0066 dss1@cdc.gov Kay Radford (404) 639-2192 (404) 639-2192

Test Order

Varicella Zoster Virus (VZV) Genotyping (Clade Type)

CDC-10257

Synonym(s)	Chicken pox, shingles
Pre-Approval Needed	**Schmid, Scott, (404) 639-0066, dss1@cdc.gov** **Folster, Jennifer, (404) 639-3668, apz5@cdc.gov**
Supplemental Information Required	**See Supplemental Form.** **Please Note: Persons with disabilities experiencing problems accessing this document should contact CDC-INFO by either completing the form at http://www.cdc.gov/cdc-info/requestform.html and use subject "508 Accommodation PR#31", or by calling 800-232-4636 (TTY number: 888-232-6348) and ask for 508 Accommodation PR#31.**
Supplemental Form	**http://www.cdc.gov/shingles/downloads/specimen_collection_form.pdf**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Skin lesions, scab, saliva, cerebrospinal fluid (CSF), urine, and whole blood
Minimum Volume Required	200 uL
Storage & Preservation of Specimen Prior to Shipping	Frozen or refrigerated for saliva, cerebrospinal fluid (CSF), urine or whole blood. Room temperature, dry skin lesions and scabs. Blood should be collected in EDTA or citrate tubes.
Transport Medium	Not Applicable
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Ship specimen Monday-Thursday, overnight. Cold packs or dry ice for liquid specimen. Ambient temperature for scabs and lesions. Ship as an etiologic agent.
Methodology	Polymerase Chain Reaction (PCR), DNA sequencing
Turnaround Time	1 Week
Interferences & Limitations	None
Additional Information	None
CDC Points of Contact	Scott Schmid (404) 639-0066 dss1@cdc.gov Jennifer Folster (404) 639-3668 apz5@cdc.gov

Test Order

Varicella Zoster Virus (VZV) Intrathecal Antibody Detection

CDC-10496

Synonym(s)	None
Pre-Approval Needed	**Schmid, Scott, (404) 639-0066, SSchmid@cdc.gov** **Folster, Jennifer, (404) 639-3668, JFolster@cdc.gov**
Supplemental Information Required	**See Supplemental Form**
Supplemental Form	**http://www.cdc.gov/shingles/downloads/specimen_collection_form.pdf**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Paired serum sample and cerebrospinal fluid (both samples required)
Minimum Volume Required	200 uL
Storage & Preservation of Specimen Prior to Shipping	Can be stored at 4 degrees C for several days; frozen at -20 degrees C if samples will be held longer.
Transport Medium	No transport medium.
Specimen Labeling	Clearly identify the samples as either serum or CSF and an associated patient ID number
Shipping Instructions which Include Specimen Handling Requirements	If stored at 4 degrees C can be overnighted on cold packs in well-sealed O-ring vials; if frozen can be overnighted on dry ice in well-sealed O-ring vials
Methodology	gpELISA
Turnaround Time	7 Days
Interferences & Limitations	At least one of the specificity controls must be both positive in serum and negative in CSF; if all three specificity controls are negative in both serum and CSF, interpretation is not possible (If specimen volume allows, additional specificity controls could be attempted, e.g., for anti-CMV antibody).
Additional Information	gpELISA VZV antibody detection method used to determine presence of specific antibody in both CSF and serum. HSV-1, HSV-2 and HHV-6 antibody measurements are performed as specificity controls on both samples. A ratio of 1:10 CSF to serum VZV Ab is regarded as positive if and only if at least one of the specificity controls is both Ab positive in serum and negative in CSF. This protocol is not operated currently under the CLIA certificate, as it is still in the process of being evaluated and validated; it is for research purposes only.
CDC Points of Contact	Scott Schmid (404) 639-0066 SSchmid@cdc.gov Jennifer Folster (404) 639-3668 JFolster@cdc.gov

Test Order

Varicella Zoster Virus (VZV) Serology

CDC-10255

Synonym(s)	Chicken pox, shingles
Pre-Approval Needed	**None**
Supplemental Information Required	**See Supplemental Form.** **Please Note: Persons with disabilities experiencing problems accessing this document should contact CDC-INFO by either completing the form at http://www.cdc.gov/cdc-info/requestform.html and use subject "508 Accommodation PR#31", or by calling 800-232-4636 (TTY number: 888-232-6348) and ask for 508 Accommodation PR#31.**
Supplemental Form	**http://www.cdc.gov/shingles/downloads/specimen_collection_form.pdf**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Serum, plasma or cerebrospinal fluid (CSF)
Minimum Volume Required	200 uL
Storage & Preservation of Specimen Prior to Shipping	Keep specimen either refrigerated or frozen
Transport Medium	None
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Ship overnight Monday – Thursday, with cold packs or dry ice as an etiologic agent.
Methodology	IgG antibody detected by EIA, IgM antibody detected by EIA
Turnaround Time	7 Days
Interferences & Limitations	None
Additional Information	None
CDC Points of Contact	Scott Schmid (404) 639-0066 dss1@cdc.gov Kay Radford (404) 639-2192 kjr7@cdc.gov

Test Order

Varicella Zoster Virus Detection (Wild-type vs. Vaccine)

CDC-10254

Synonym(s)	Chicken pox, shingles
Pre-Approval Needed	**None**
Supplemental Information Required	**See Supplemental Form.** **Please Note: Persons with disabilities experiencing problems accessing this document should contact CDC-INFO by either completing the form at http://www.cdc.gov/cdc-info/requestform.html and use subject "508 Accommodation PR#31", or by calling 800-232-4636 (TTY number: 888-232-6348) and ask for 508 Accommodation PR#31.**
Supplemental Form	**http://www.cdc.gov/shingles/downloads/specimen_collection_form.pdf**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Skin lesions, scab, saliva, cerebrospinal fluid (CSF), urine, and whole blood
Minimum Volume Required	200 uL
Storage & Preservation of Specimen Prior to Shipping	Frozen or refrigerated for saliva, cerebrospinal fluid (CSF), urine or whole blood. Room temperature, dry skin lesions and scabs. Blood should be collected in EDTA or citrate tubes.
Transport Medium	Not Applicable
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Ship specimen Monday-Thursday, overnight. Cold packs or dry ice for liquid specimen. Ambient temperature for scabs and lesions. Ship as an etiologic agent.
Methodology	Polymerase Chain Reaction (PCR)
Turnaround Time	7 Days
Interferences & Limitations	None
Additional Information	None
CDC Points of Contact	Scott Schmid (404) 639-0066 dss1@cdc.gov Kay Radford (404) 639-2192 kjr7@cdc.gov

Test Order

Vibrio cholerae ID, Serotyping, and Virulence Profiling

CDC-10119

Synonym(s)	Cholera
Pre-Approval Needed	**None**
Supplemental Information Required	**Prior approval is not required for human specimens; Please call for approval prior to sending, other specimen types.** **Provide any preliminary results available.**
Supplemental Form	**None**
Performed on Specimens From	Human, Animal, and Food/Environmental/Medical Devices/Biologics
Acceptable Sample/ Specimen Type for Testing	Isolates
Minimum Volume Required	Not Applicable
Storage & Preservation of Specimen Prior to Shipping	No Specific Requirements
Transport Medium	Ship cultures on nonselective nutrient or similar agar (TSA, HIA, etc.) in tubes with leak-proof screw cap closures. Agar plates are not acceptable.
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday-Thursday, overnight to avoid weekend deliveries Every suspect *Vibrio cholerae* isolate should be sent to EDLB as soon as possible. Ship at ambient temperature in compliance with Federal and local guidelines.
Methodology	Phenotypic Characterization (Serogrouping for O1, O139, O75, and O141), PCR for Virulence Markers (Toxin and tcpA biotype)
Turnaround Time	8 Weeks
Interferences & Limitations	None
Additional Information	Every suspect *Vibrio cholerae* isolate should be sent to EDLB as soon as possible
CDC Points of Contact	Cheryl Tarr (404) 639-2011 crt6@cdc.gov Monica Santovenia (404) 718-1446 ixi9@cdc.gov

Test Order

Vibrio cholerae serology

CDC-10454

Synonym(s)	Enteric Pathogen
Pre-Approval Needed	**Aubert, Rachael, (404) 639-3816, vrl7@cdc.gov** **Korth, Michael, (404) 639-2099, mqk8@cdc.gov**
Supplemental Information Required	**Date of illness onset, date of serum collection, clinical diagnosis. Indicate if patient is currently on antibiotics.**
Supplemental Form	**None**
Performed on Specimens From	Human
Acceptable Sample/ Specimen Type for Testing	Paired serum is preferred. Serum is always preferred but plasma is acceptable. Do not pool specimens.
Minimum Volume Required	100 uL (more preferred)
Storage & Preservation of Specimen Prior to Shipping	Maintain serum at 4°C (preferred); frozen specimens acceptable
Transport Medium	Separate serum from the clot and ship in a sterile labeled tube with the top tightly closed.
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday-Thursday, overnight to avoid weekend deliveries. Please notify Rachael Aubert (vrl7@cdc.gov, (404) 639-3816) once specimens have been shipped to provide the tracking number. Ship with cold packs in compliance with federal and local guidelines
Methodology	Various methods utilized; Consultation required
Turnaround Time	3 Months
Interferences & Limitations	None
Additional Information	Paired serum specimens always preferred. Please send one tube per specimen submission form. Submit multiple forms if needed.
CDC Points of Contact	Rachael Aubert (404) 639-3816 vrl7@cdc.gov Michael Korth (404) 639-2099 mqk8@cdc.gov

Test Order

Vibrio Subtyping

CDC-10122

Synonym(s)	None
Pre-Approval Needed	**None**
Supplemental Information Required	**Prior approval is not required for human specimens, but is required for all other specimen types.** **Specify type of subtyping requested in 'Previous Laboratory Results' on back of form.**
Supplemental Form	**None**
Performed on Specimens From	Human, Animal, and Food/Environmental/Medical Devices/Biologics
Acceptable Sample/ Specimen Type for Testing	Isolates
Minimum Volume Required	Not Applicable
Storage & Preservation of Specimen Prior to Shipping	No Specific Requirements
Transport Medium	Ship cultures on nonselective nutrient or similar agar (TSA, HIA, etc.) in tubes with leak-proof screw cap closures. Agar plates are not acceptable.
Specimen Labeling	Not Applicable
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday-Thursday, overnight to avoid weekend deliveries Ship at ambient temperature in compliance with Federal and local guidelines
Methodology	PFGE, MLST, MLVA, AST
Turnaround Time	8 Weeks
Interferences & Limitations	None
Additional Information	Turn around time depends on the nature of subtyping performed; and, results are typically not reported directly back to the submitter, but deposited in surveillance databases. If the surveillance database is not accessible to submitters, results are posted on the PulseNet and OutbreakNet discussion board.
CDC Points of Contact	Cheryl Tarr (404) 639-2011 crt6@cdc.gov Monica Santovenia (404) 718-1446 ixi9@cdc.gov

Test Order

Vibrio, *Aeromonas*, and Related Organisms Identification

CDC-10120

Synonym(s)	*Grimontia* species, *Photobacterium* species, *Salinivibrio* species
Pre-Approval Needed	**None**
Supplemental Information Required	**Prior approval is not required for human specimens, but is required for all other specimen types.** **Provide any preliminary results that are available.**
Supplemental Form	**None**
Performed on Specimens From	Human, Animal, and Food/Environmental/Medical Devices/Biologics
Acceptable Sample/ Specimen Type for Testing	Isolates
Minimum Volume Required	Not Applicable
Storage & Preservation of Specimen Prior to Shipping	No Specific Requirements
Transport Medium	Ship cultures on nonselective nutrient or similar agar (TSA, HIA, etc.) in tubes with leak-proof screw cap closures. Agar plates are not acceptable.
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday-Thursday, overnight to avoid weekend deliveries Ship at ambient temperature in compliance with Federal and local guidelines
Methodology	Phenotypic Identification, Genetic Identification
Turnaround Time	8 Weeks
Interferences & Limitations	None
Additional Information	Turnaround times for routine isolates may be extended during major foodborne outbreak activities or due to limited availability of resources.
CDC Points of Contact	Cheryl Tarr (404) 639-2011 crt6@cdc.gov Monica Santovenia (404) 718-1446 ixi9@cdc.gov

Test Order

Vibrio, *Aeromonas*, and Related Organisms Study

CDC-10121

Synonym(s)	None
Pre-Approval Needed	**Tarr, Cheryl, (404) 639-2011, crt6@cdc.gov** **Santovenia, Monica, (404) 718-1446, ixi9@cdc.gov**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human, Animal, and Food/Environmental/Medical Devices/Biologics
Acceptable Sample/ Specimen Type for Testing	To be determined
Minimum Volume Required	To be determined
Storage & Preservation of Specimen Prior to Shipping	To be determined
Transport Medium	To be determined
Specimen Labeling	To be determined
Shipping Instructions which Include Specimen Handling Requirements	To be determined
Methodology	
Turnaround Time	
Interferences & Limitations	To be determined
Additional Information	To be determined
CDC Points of Contact	Cheryl Tarr (404) 639-2011 crt6@cdc.gov Monica Santovenia (404) 718-1446 ixi9@cdc.gov

Test Order

Yersinia (non-*Y. pestis*) & other *Enterobacteriaceae* subtyping

CDC-10124

Synonym(s)	None
Pre-Approval Needed	**None**
Supplemental Information Required	**Prior approval is not required for human specimens, but is required for all other specimen types.** **Indicate subtyping method(s) requested on specimen submission form**
Supplemental Form	**None**
Performed on Specimens From	Human, Animal, and Food/Environmental/Medical Devices/Biologics
Acceptable Sample/ Specimen Type for Testing	Isolates
Minimum Volume Required	Not Applicable
Storage & Preservation of Specimen Prior to Shipping	No Specific Requirements
Transport Medium	Ship cultures on nonselective nutrient or similar agar (TSA, HIA, etc.) in tubes with leak-proof screw cap closures. Agar plates are not acceptable.
Specimen Labeling	Not Applicable
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday-Thursday, overnight to avoid weekend deliveries Ship at ambient temperature in compliance with Federal and local guidelines
Methodology	Serotyping, PFGE, MLST
Turnaround Time	8 Weeks
Interferences & Limitations	None
Additional Information	Specify type of subtyping requested in 'Previous Laboratory Results' on back of form. Turn around time depends on the nature of subtyping performed; and, results are typically not reported directly back to the submitter, but deposited in surveillance databases. If the surveillance database is not accessible to submitters, results are posted on the PulseNet and OutbreakNet discussion board.
CDC Points of Contact	Cheryl Tarr (404) 639-2011 crt6@cdc.gov Jonathan Jackson (404) 718-4165 wsy9@cdc.gov

Test Order

Yersinia (non-*Y. pestis*) and Other *Enterobacteriaceae* Identification

CDC-10123

Synonym(s)	*Arsenophonus*, *Biostraticola*, *Brenneria*, *Buchnera*, *Budvicia*, *Buttiauxella*, *Calymmatobacterium*, *Cedecea*, *Citrobacter*, *Cosenzaea*, *Cronobacter*, *Dickeya*, *Edwardsiella*, *Enterobacter*, *Erwinia*, *Ewingella*, *Gibbsiella*, *Hafnia*, *Klebsiella*, *Kluyvera*, *Leclercia*, *Leminorella*, *Levinea*, *Lonsdalea*, *Mangrovibacter*, *Moellerella*, *Morganella*, *Obesumbacterium*, *Pantoea*, *Pectobacterium*, *Phaseolibacter*, *Photorhabdus*, *Plesiomonas*, *Pragia*, *Proteus*, *Providencia*, *Rahnella*, *Raoultella*, *Saccharobacter*, *Samsonia*, *Serratia*, *Shimwellia*, *Sodalis*, *Tatumella*, *Thorsellia*, *Trabulsiella*, *Wigglesworthia*, *Xenorhabdus*, *Yersinia*, *Yokenella*
Pre-Approval Needed	**None**
Supplemental Information Required	**Prior approval is not required for human specimens, but is required for all other specimen types.** **Provide any preliminary results that are available.**
Supplemental Form	**None**
Performed on Specimens From	Human, Animal, and Food/Environmental/Medical Devices/Biologics
Acceptable Sample/ Specimen Type for Testing	Isolates
Minimum Volume Required	Not Applicable
Storage & Preservation of Specimen Prior to Shipping	No Specific Requirements
Transport Medium	Ship cultures on nonselective nutrient or similar agar (TSA, HIA, etc.) in tubes with leak-proof screw cap closures. Agar plates are not acceptable.
Specimen Labeling	Test subject to CLIA regulations and requires two patient identifiers on the specimen container and the test requisition.
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday-Thursday, overnight to avoid weekend deliveries Ship at ambient temperature in compliance with Federal and local guidelines
Methodology	Phenotypic Identification, Genetic Identification
Turnaround Time	8 Weeks
Interferences & Limitations	None
Additional Information	Turnaround times for routine isolates may be extended during major foodborne outbreak activities or due to limited availability of resources.
CDC Points of Contact	Cheryl Tarr (404) 639-2011 crt6@cdc.gov Jonathan Jackson (404) 718-4165 wsy9@cdc.gov

Test Order

Yersinia pestis Culture and Identification

CDC-10418

Synonym(s)	Plague
Pre-Approval Needed	**None**
Supplemental Information Required	**Please include submitting agency, contact name, address, phone number, specimen identifier, patient name, specimen source and type, sex and date of birth, symptoms of onset, sample collection date, and clinical information including type and date of treatment patient has received.**
Supplemental Form	**None**
Performed on Specimens From	Human, Animal, and Food/Environmental/Medical Devices/Biologics
Acceptable Sample/ Specimen Type for Testing	Human: lymph node aspirate, sputum, bronchial/tracheal wash, pleural fluid, blood, ulcer swab, biopsy/autopsy specimens (sections of lymph node, lung, liver, spleen); Animal: necropsy specimen (lymph node, lung, liver or spleen); Environmental: fleas
Minimum Volume Required	Not Applicable
Storage & Preservation of Specimen Prior to Shipping	Store specimens containing suspected live bacteria at 2°-8°C to maintain viability. If processing is delayed, tissue samples can be directly frozen at -70°C. Store samples for culture of live bacteria without preservatives (formaldehyde, alcohol), at 2°-8°C (not frozen). Anticoagulants such as heparin, citrate and EDTA are acceptable because they do not inhibit the viability of bacteria.
Transport Medium	Respiratory specimens, lymph node aspirates, blood, tissue/biopsy/autopsy/necropsy specimens should all be transported at 4°C. Swabs must be in a Cary-Blair or Amies medium, not frozen. If tissue biopsy/autopsy/necropsy transport is delayed, tissue samples can be directly frozen at -70°C.
Specimen Labeling	Specimen identifier and patient name
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday-Thursday, overnight to avoid weekend deliveries. All packages must be addressed to: Centers for Disease Control and Prevention Bacterial Diseases Branch Attn: John Young 3156 Rampart Road Fort Collins, CO 80521 Frozen specimen should be shipped on dry ice Refrigerated specimen should be shipped on ice packs
Methodology	Culture, Direct Fluorescent Antibody (DFA), Bacteriophage Lysis
Turnaround Time	3 Weeks
Interferences & Limitations	Samples for testing by culture should be taken prior to antibiotic treatment
Additional Information	None
CDC Points of Contact	Marty Schriefer (970) 221-6479 mms7@cdc.gov Jeannine Petersen (970) 266-3524 nzp0@cdc.gov

Test Order

Yersinia pestis Serology

CDC-10419

Synonym(s)	Plague
Pre-Approval Needed	**None**
Supplemental Information Required	**Please include submitting agency, contact name, address, phone number, specimen identifier, patient name, specimen source and type, sex and date of birth, symptoms of onset, sample collection date, and clinical information including type and date of treatment patient has received.**
Supplemental Form	**None**
Performed on Specimens From	Human and Animal
Acceptable Sample/ Specimen Type for Testing	Serum
Minimum Volume Required	500 uL
Storage & Preservation of Specimen Prior to Shipping	Sera may be stored at 2°-8°C for up to 14 days. If testing is delayed for a longer period, serum samples may be frozen.
Transport Medium	Not Applicable
Specimen Labeling	Specimen identifier and patient name
Shipping Instructions which Include Specimen Handling Requirements	Ship Monday-Thursday, overnight to avoid weekend deliveries. All packages must be addressed to: Centers for Disease Control and Prevention Bacterial Diseases Branch Attn: John Young 3156 Rampart Road Fort Collins, CO 80521 Frozen specimen should be shipped on dry ice Refrigerated specimen should be shipped on ice packs
Methodology	Passive Hemagglutination, Passive Hemagglutination Inhibition
Turnaround Time	2 Weeks
Interferences & Limitations	Hemolyzed samples may interfere with test results
Additional Information	None
CDC Points of Contact	Marty Schriefer (970) 221-6479 mms7@cdc.gov Jeannine Petersen (970) 266-3524 nzp0@cdc.gov

Test Order

Yersinia pestis Special Study

CDC-10420

Synonym(s)	None
Pre-Approval Needed	**Schriefer, Marty, (970) 221-6479, mms7@cdc.gov** **Petersen, Jeannine, (970) 266-3524, nzp0@cdc.gov**
Supplemental Information Required	**None**
Supplemental Form	**None**
Performed on Specimens From	Human and Animal
Acceptable Sample/ Specimen Type for Testing	To be determined
Minimum Volume Required	To be determined
Storage & Preservation of Specimen Prior to Shipping	To be determined
Transport Medium	To be determined
Specimen Labeling	To be determined
Shipping Instructions which Include Specimen Handling Requirements	To be determined
Methodology	
Turnaround Time	
Interferences & Limitations	To be determined
Additional Information	To be determined
CDC Points of Contact	Marty Schriefer (970) 221-6479 mms7@cdc.gov Jeannine Petersen (970) 266-3524 nzp0@cdc.gov