

Len F. Baker Public Health Laboratory

Directory of Service







Directory of Services (DOS)

Public Health Laboratory – Contact List for Clinical Services	DOS-1
General Laboratory Information-Introduction	DOS-2
Normal Working Hours	DOS-2
Specimen Labels	DOS-3
Requisition Forms and Acquiring a Submitter Code	DOS-3
Kits	DOS-3
Specimen Collection/Handling/Shipping	DOS-4
Collection of Serology Specimens	DOS-5
Newborn Screening – Heel Stick Collection Procedures	DOS-6
Plastic Tubes	DOS-7
Gonorrhea/Chlamydia	DOS-7
Specimen Packaging Rejection Information	DOS-7
Private Submitter Submissions	DOS-8
Communicable Disease Reporting Forms	DOS-8
Contact Information	DOS-8 DOS-8
ADH Mandatory Reportable Diseases List and Instructions	DOS-6 DOS-9
Miscellaneous Examination Form	DOS-9
Mycobacteriology/Mycology Form	DOS-10 DOS-12
Clinical Microbiology Form	DOS-12
Rabies	DOS-14
Rabies Electronic Submission Form	DOS-15
Test Menu	
Acid Fast Stain (Modified)	DOS-16
Asymptomatic Bacteriuria for Prenatal Screening	DOS-10 DOS-17
Bacterial/Confirmation of Isolates	DOS-17
BioFire Filmarry Gastroenterology Panel	DOS-10
BioFire Filmarry Pneumonia Panel	DOS-20
Biofire Filmarray Respiratory Panel	DOS-21
Blood Films, Malaria, and Other Blood Parasites	DOS-22
Blood Type and Antibody Screen	DOS-23
Brucella Abortus Serology	DOS-24
Campylobacter Culture or Confirmation	DOS-25
Carbapenem Producing Organisms (CPO)	DOS-26
Congenital Adrenal Hyperplasia 2 nd Tier Testing	DOS-27
Culture, Routine Feces	DOS-28
Culture, Vorsinia	DOS-29
Custine, Yersinia	DOS-30
Cystic Fibrosis 2 nd Tier Testing	DOS-31
Ehrlichia Chaffeensis	DOS-32
Francisella Tularensis Serology Fungus (Mycology), Clinical Specimen	DOS-33
Fungus (Mycology), Cliffical Specimen Fungus (Mycology), Referred Specimen	DOS-34 DOS-35
Gonorrhea/Chlamydia Screening	DOS-36
Group B Streptococcus (GBS) for Prenatal Screening	DOS-38
Hemoglobin A1c	DOS-39
Hemoglobinopathies	DOS-39
Hepatitis A IgM Antibody (HAV IgM)	DOS-40 DOS-41
Hepatitis B IgM Core Antibody (HBcIgM)	DOS-42
Hepatitis B Surface Antibody (HBsAb)	DOS-43
Hepatitis B Surface Antigen (HBsAg)	DOS-44

Hepatitis B Total Core Antibody (HBcAb)	DOS-45
Hepatitis C (HCV) Screening & Confirmation Test	DOS-46
Human Immunodeficiency Virus (HIV)	DOS-48
Isolate Identification, Anaerobic and Aerobic/Confirmation	DOS-49
Measles Virus Real-Time PCR Assay	DOS-50
Mumps Virus Real-Time PCR Assay	DOS-51
Mycobacteria Tuberculosis Rapid Susceptibility	DOS-53
Newborn Screening Panel	DOS-54
Non-Variola Orthopoxvirus	DOS-56
Ova and Parasites, Fecal	DOS-57
Parasite (Ectoparasite) Identification	DOS-58
Rabies	DOS-59
Rocky Mountain Spotted Fever	DOS-60
Rubella IgG	DOS-61
Salmonella Culture or Confirmation	DOS-62
SARS-CoV-2, Influenza A & B, and RSV	DOS-63
Shiga-toxin Producing E.Coli Culture or Confirmation	DOS-64
Shigella Culture or Confirmation	DOS-65
Syphilis	DOS-66
TB and Other Mycobacteria Clinical Specimens	DOS-67
TB (Mycobacteria) Isolate Identification	DOS-68
TB Rapid Identification	DOS-69
Trichomonas Vaginalis	DOS-70
Whole Genome Sequencing (Bacteriology Organisms)	DOS-71
Whole Genome Sequencing (COVID-19 Variants)	DOS-72
Varicella-Zoster Virus Real-Time PCR DNA Assay	DOS-73
-	

PUBLIC HEALTH LABORATORY CLINICAL SERVICES CONTACT LIST

Communicable Disease/Immunization	501-661-2169
PHL Receptionist	501-661-2220
Questions, Inquiries, and Complaints	501-661-2363
Laboratory Director Laboratory Director Administrative Assistant	501-280-4079 501-661-2424
Quality Assurance Director	501-661-2363 (office) 501-661-2310 (fax)
Specimen Receiving Specimen Receiving Supervisor	501-280-4075 501-280-4206 (office) 501-661-2754 (fax)
Clinical Microbiology Supervisor	501-280-4842 (office) 501-837-9704 (cell) 501-661-2538 (fax)
TB/Mycology Supervisor	501-661-2448 (office) 501-671-1811 (fax)
Immunology Supervisor	501-661-2490 (office) 501-940-3184 (cell) 501-280-4050 (fax)
Lab Informatics Supervisor	501-661-2450 (office) 501-940-3184 (cell)
Molecular Supervisor	501-661-2454 (office) 501-661-2270 (fax)
Newborn Screening Supervisor	501-661-2445 (office) 501-280-4087 (fax)

GENERAL LABORATORY INFORMATION

Introduction

The alphabetical directory contains a list of available tests at the Glen F. Baker Public Health Laboratory. Test protocols include turnaround time, specimen requirements and other pertinent information.

The testing menu of the Public Health Laboratory provides many tests not commonly performed in diagnostic clinical laboratories and is designed to support public health programs. The Public Health Laboratory is committed to providing accurate and timely results for all tests offered. Turnaround times may vary widely depending on incubation time, confirmation tests required prior to reporting results, and transport time.

Each test protocol provides information on patient, collection, and specimen requirements. Rejection criteria and turnaround times are given for each test.

These requirements must be followed. Care must be used in packaging the specimen for delivery. Specimens should reach the Public Health Laboratory promptly, same day or next day, if possible. Delays may render the specimens unsuitable for analysis.

Normal Working Hours: Monday through Friday 8:00 a.m. to 4:30 p.m.

Tests are set up during these hours, unless otherwise indicated. For exceptions, please refer to specific test sections.

Some specimens have special collection requirements by the Public Health Laboratory. Every effort has been made in the creation of these kits to ensure specimens reach the laboratory in the best possible condition. Carefully follow the instructions on the kits for proper specimen collection procedure.

Specimens submitted for testing are assumed to be diagnostic and/or infectious per Public Health Laboratory policy and must be transported in containers which comply with appropriate shipping regulations.

Notes:

- It is the shipper's responsibility to package and ship specimens for diagnostic purposes in compliance with all shipping regulations from the Department of Transportation (DOT) and International Air Transport Association (IATA) that may apply.
- If in doubt how a specimen should be shipped by ground refer to the 49 Code of Federal Regulation Parts 100 to 185 if shipping by ground. These regulations are available at: http://www.phmsa.dot.gov/sites/phmsa.dot.gov/sites/phmsa.dot.gov/files/docs/HowToUseHMR 0.pdf
- If shipping a specimen by air, then the IATA regulations must be followed. These regulations
 are covered in the current edition of IATA Dangerous Goods Regulations. This book can be
 purchased online at www.iata.org/en/publications/dgr/.

Specimen Labels

All specimens must be labeled with **two** unique identifiers which can include patient name, date of birth, hospital number, etc. Since inks may run when exposed to moisture, use waterproof markers to label specimens. Testing may be delayed or not performed if the information is incomplete or illegible.

Requisition Forms and Acquiring a Submitter Code

Requisition forms must be filled out. Each submitter must obtain a submitter code to use when submitting a specimen to the Public Health Laboratory. Private submitter must be approved by the laboratory director. To receive a submitter code, contact the QA Office at 501-661-2363.

Once a submitter code is obtained, forms may be obtained by contacting the Public Health Laboratory IT Supervisor at 501-661-2450. Newborn screening forms may be obtained by contacting the Newborn Screening Supervisor at 501-661-2445.

The required information may vary slightly depending on the specific form but includes the following:

- Patient's name
- Patient's date of birth
- Patient's sex
- Patient's race or other unique identifiers
- Authorized requestor (physician or nurse practitioner)
- · Submitter information (name, address, etc.) and submitter code
- Test(s) requested
- Source of specimen or type of specimen
- Date specimen was collected and time of collection, if applicable

Note: Since inks may run when exposed to moisture, please label specimens with water-proof markers. Testing may be delayed or not performed if the information is incomplete or illegible.

All submitters should complete the appropriate submitter test requisition form and include it with the specimen for shipment. Please place the requisition between the secondary container and the outer shipping box. If a specimen is taken to the Local Health Unit for shipment to the Public Health Laboratory via the courier, the sample must be appropriately packaged for shipment. Local Health Units will not repackage specimens from private submitters.

Kits

Some tests require special collection and/or mailing kits. Kits may be acquired from the Local Health Unit.

Specimen Collection/Handling/Shipping

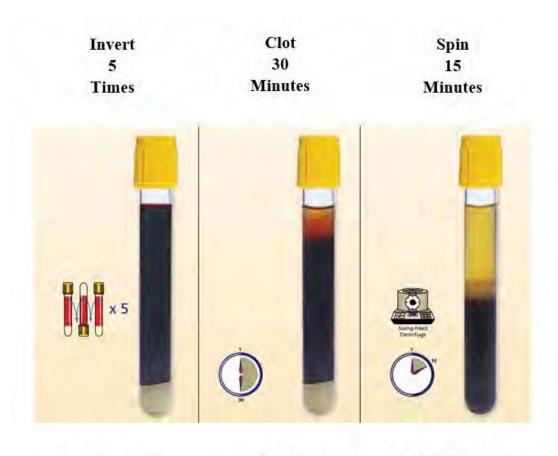
Proper specimen collection is important to ensure accurate results. Each test listed in this section indicates the correct collection container and required volume. Many tests that require serum or plasma cannot be performed on hemolyzed specimens.

Improper shipping of the specimen may cause delays in testing or specimen rejection. Shipping requirements are given for each test and must be followed when transporting a specimen.

Cold packs or other means to keep the specimen chilled may be required for shipping. To prevent breakage of specimen, packing should include cushioning material between glass specimen containers. Check tops of specimen containers to ensure specimens do not leak during transportation and that the bucket and lid are labelled with the correct clinic code. Specimens must reach the Public Health Laboratory within the time indicated for all testing to be performed. The test request should be placed between the secondary and tertiary packaging to prevent damage to the requisition in case of sample leakage. See specific tests for shipping requirements.

Collection of Serology Specimens

- 1. Use a serum separator tube (SST) that is 3mL or less filled to 90%. Fill 3.5 mL tubes to 3.0 mL
- Invert 5 times before allowing to clot.
- 3. Place tube in the vertical position and allow to clot for a minimum of 30 minutes.
- 4. Centrifuge within 2 hours of collection.
- 5. Centrifuge for at least 15 minutes.
- 6. Inspect tube to assure all cellular products and visible matter are separated from serum (No visible cellular products should be seen in gel after centrifugation).



- Gently invert 5 times to mix clot activator with blood.
- Allow blood to clot for a minimum of 30 minutes in a vertical position
- Centrifuge at FULL SPEED for 15 minutes (balance tube in centrifuge)

Newborn Screening – Heel Stick Collection Procedures

Fill out the Neonatal Screening form. Ensure that ALL data elements are complete, accurate and consistent. PRINT clearly in ballpoint pen. Press firmly to assure legibility of all copies.

- 1. Hold infant's limb in a dependent position to increase venous pressure.
- 2. Clean heel thoroughly. Wipe with alcohol and air dry before puncturing.
- 3. Puncture heel with sterile lancet deep enough to assure free flow of blood.
- 4. Gently wipe off first drop of blood.
- 5. Apply gentle pressure and allow a large drop of blood to form.
- 6. Touch the filter paper directly to the blood drop and fill each circle with a single application of blood. The circle must be filled completely and uniformly. Total saturation of the circles must be evident when the paper is viewed on both sides.
- 7. Fill all circles COMPLETELY.
- 8. Allow blood spots to air dry thoroughly for a minimum of three hours at ambient temperature. Keep away from sunlight. Do not stack or heat during the drying process.
- 9. Cover dried blood spots with fold-over tab. DO NOT tape shut.
- 10. Transport the dried blood spot specimens in a paper envelope. Do not package in an airtight, leak-proof plastic bag. Heat buildup and moisture accumulation in a sealed bag can adversely affect the specimen. DO NOT fold the forms but mail flat in an appropriately sized envelope. Mark the envelope "Newborn Screening".
- 11. Send specimens to the Public Health Laboratory Slot 47 or the address:

Public Health Laboratory Attention: Newborn Screening Laboratory Arkansas Department of Health 201 S. Monroe Street Little Rock, AR 72205

Note: The recommended method for collection is the heel stick. Do not use EDTA or citrate tubes or capillaries for collection. Infant weights should be recorded in grams on the Newborn Screening form.

A video on newborn screening and specimen collection can be found on the Arkansas
 Department of Health website. Visit www.healthy.arkansas.gov/programs-services/topics/health-professionals to view the "Newborn Screening Video" listed under the Downloads and Information section.

Plastic Tubes

- A group of plastic tubes may have several paper towels wrapped around them. Use the same number of paper towels as tubes in the group. Place group of tubes in biohazard bag.
- 2. Place additional paper towels in the secondary container outside the biohazard bag to cushion tubes.

Gonorrhea/Chlamydia Specimen Packaging

All swab and urine specimens collected must be packaged individually to avoid contamination between specimens. The use of small "snack bags" is acceptable if each of the individual bags is collectively placed in the biohazard bag. Zip-lock biohazard bags currently in use are acceptable; however, only one specimen per bag is allowed.

Specimen Packaging Rejection Information

Specimens are rejected for the following reasons:

- Not collected in the appropriate containers
- Expired collection containers
- Inadequate specimen volume for all testing, including repeat or confirmatory testing
- Not submitted with two unique identifiers
- Not submitted with correct barcode and, when scanned, name appearing in LIMS does not match name on the container.
- Not shipped within acceptable temperature ranges
- Not shipped in appropriate transport containers
- Not received within acceptable timeframe for testing
- Lab accidents
- Tests requested not available
- Shaft of swab not broken at score (too long for testing)
- No swab in container

See additional causes for rejection listed in each specific test menu.

^{*}All specimens except TB/Mycology specimens must be pre-packaged by the private submitter before shipping to the Public Health Laboratory via LHU Courier.

Private Submitter Submissions

Private submitters delivering packages to the Local Health Unit will be asked to record information about the package on the Private Submitter Shipping Log. A fluorescent sticker and duplicate green barcode will be place on the package to help track packages as they are transported by the courier to the Public Health Laboratory.

Communicable Disease Reporting

Arkansas statutes require reporting of certain diseases to the Arkansas Department of Health. In addition, the following bacterial isolates must be submitted to the Public Health Laboratory for further testing: any suspected agent of Bioterrorism, *Neisseria meningitidis*; *Salmonella sp.*; *Enterotoxigenic E. coli; Listeria sp.*; *Staph. aureus*, vancomycin resistant or intermediate susceptible; outbreak-related *Campylobacter sp.* and *Shigella sp.*, or on request; *Haemophilus influenzae* (invasive). **See DOS-9 for instructions.**

Forms

If you are already a client of the Arkansas Department of Health Public Health Laboratory, you should have an electronic copy of the Public Health Laboratory's test request with your submitter number. Please use that form to submit tests specimens to the Public Health Laboratory. If you cannot locate the form, please contact the IT supervisor at 501-661-2450.

If you are a new client of the Public Health Laboratory, please call 501-661-2363 for approval from the PHL Lab Director and test requisition forms.

In cases of emergency, see DOS-10 and DOS-15 for Miscellaneous and Rabies forms.

Contact Information

Contact the Public Health Laboratory with questions, comments, or complaints.

E-mail address: adhlab@arkansas.gov

Website: www.phl.arkansas.gov

Arkansas Department of Health (ADH) Mandatory Reportable Diseases List and Instructions

The "Rules and Regulations Pertaining to Reportable Disease" adopted and promulgated by the Arkansas State Board of Health pursuant to the authority expressly conferred by the Laws of the State of Arkansas including, without limitation, Ark. Code Ann. §§ 20-7-101 et seq. Section III, states "It shall be the duty of every physician, practitioner, nurse; every superintendent or manager of a dispensary, hospital, clinic, nursing or extended care home; any clinical or private laboratory; any person in attendance on a case of any of the diseases or conditions declared notifiable; or the local health department to report the disease or condition to the Department...*

The following diseases/conditions (suspected or confirmed) are to be reported immediately to the ADH:

Anthrax** Meningococcal Infection** Poliomyelitis*** Variola (Smallpox)**

Botulism (all types)*** Novel Coronavirus*** Q Fever"" Middle Eastern Respiratory Syndrome (MERS; MERS-CoV) Chemical agents of terrorism*** Novel Influenza A virus** Tularemia** Severe Acute Respiratory Syndrome (SARS; SARS-CoV-1) Emerging threat agents***

Plaque (Yersinia pestis)** Typhus*** Viral hemorrhagic fevers

TO REPORT DISEASES IMMEDIATELY VIA TELEPHONE, CALL 1-501-661-2381 (8:00 AM - 4:30 PM) AFTER HOURS, HOLIDAYS AND WEEKENDS, PLEASE CALL 1-800-554-5738

All outbreaks of diseases on this list or any unusual outbreak/cluster should be reported immediately by phone to the ADH. All unusually drug resistant infections should be reported within 24 hours to the ADH.

The following diseases of public health significance are to be reported to the Arkansas Department of Health within 24 hours of diagnosis. Reports should include: 1) the reporter's name, location and phone number; 2) the name and onset date of the disease; 3) the patient's name number, age, sex and race; 4) the attending physician's name, location and phone number; 5) any pertinent clinical, laboratory, and treatment information. Report by fax to 501-661-2428; or by phone to 501-280-4115.

Acute flaccid myelitis (AFM)

Alpha-gal syndrome

Anapiasmosis (Anapiasma phagocytophillum) Arboviral, neuro and non-neuroinvasive

Babesiosis Bacillus cereus

Bacillus species that cannot be ruled out as B. anthracis or B. cereus blovar anthracis**

Blastomycosis Brucellosis"

CD4+ T-lymphocyte count Campylobacterlosis*

Candida auris" Carbapenemase producing organisms (CPO)**

Chagas disease Chancroid Chikungunya Chiamydiai infections

Coccidioidomycosis (caused by Coccidioides)

COVID-19 (SARS-CoV-2) Creutzfeld-Jakob disease Cryptococcosis Cryptosporidiosis Cyclosporlasis Dengue virus infections

Diphtheria **Fhrlichiosis**

E. coll, Shiga toxin producing** Encephalitis, all types (including Powassan,

California, EEE, St. Louis, West Nile, WEE) Food poisoning, all types

Glardiasis

Glanders (Burkholderla mallel)**

Gonombea

Haemophilus Influenzae, Invasive** Hansen's disease (leprosy) Hantavirus pulmonary syndrome Hemolytic-uremic syndrome (HUS)

Hepatitis (type A, B, C, or E) viruses

Hepatitis B surface antigen (HBsAg) positive

In pregnant woman

Histoplasmosis

HIV (human immunodeficiency virus)* (qualitative, quantitative, and genotyping included even if no virus is detected) Influenza deaths/hospitalizations, all ages†

Legioneliosis Leptospirosis Listeriosis" Lyme disease

Measles (rubeola)

Melloidosis (Burkholderia pseudomallei)**

Meningitis, all types" Mpox (monkeypox)

Multisystem inflammatory syndrome (MIS)

Mumps Pertussis Pattacosis

Rables, human and animal; plus mammalian

animal bites‡

Rickettsiosis, spotted fever (RMSF) Rubella, including congenital infection Salmonellosis (Including typhoid fever)**

Shigellosis"

Streptococcus Infection, Invasive, Including S. pneumoniae, S. pyogenes/group A; Indicate antibiotic susceptibility if known. Syphilis, including congenital infection*

Tetanus

Toxic shock syndrome Toxoplasmosis Trichineliosis Tuberculosis

Vancomycin-Intermediate/resistant Staphylococcus aureus (VISA/VRSA)** Varicella (chickenpox), disease or death Vibriosis (choiera and non-choiera)**

West Nile virus Yellow fever

Yersiniosis, non-pestis (any species)

Zika virus

REPORTABLE OCCUPATIONAL **ENVIRONMENTAL DISEASES**

AND OTHER CONDITIONS

(For acute disease consultation on the diseases listed below please call the Poison Control Center at: 800-376-4768)

Asbestosis Blood lead levels****

Byssinosis

Chemical exposure, all types Clinical radiation adverse event

Elevated blood heavy metal (e.g.: mercury,

arsenic, cadmium) Pesticide exposure

Pneumoconiosis (coal workers)

Mesothelloma

Silicosis

Suspected unintentional radiation exposure

Any pregnant woman infected with AIDS, HIV or Syphilis must be reported indicating the trimester of pregnancy. This applies each time the woman becomes pregnant

** Non-viral isolates must be submitted to the ADH Laboratory for further testing. For enteric, If no Isolate is available, please send raw stool.

*** Isolates must be retained and ADH contacted to determine whether sample needs to be submitted for further testing.

*** Blood lead levels over 3.5 µg/dl for patients 72 months old and younger and levels over 10 µg/dl for patients 73 months and older.

† Web reporting for influenza is available at: https://flureport.adh.arkansas.gov

† https://www.healthy.arkansas.gov/programsservices/topics/rables-animal-bites

Other diseases not named in this list may at any time be declared notifiable as the necessity and public health demand, and these regulations shall

TO REPORT DISEASES IN THE SECOND LIST ABOVE, PLEASE FAX THE DISEASE REPORT TO 1-501-661-2428

09/11/2023 Download the reporting form at: https://www.healthy.arka

DOS-10

ARKANSAS

MISCELLANEOUS EXAMINATION FORM

DEPARTMENT OF HEALTH

PUBLIC HEALTH LABORATORY 201 South Monroe Little Rock, AR 72205

Patient Information (** Required fields) Submitter Information (** Required fields)									
Patient's Last Name ** Middle initial						ial	Submitter ID or		nitter's Name**
_									
Address**							Submitter's Address**		
City**	State**	Zip**	Co. of Residence*	*					
DOB(mm/dd/yy)** Sex** O Male O Femal	Race**		O Black ndian/Native Alaska ⁄aiian/Pacific Islande	O As		an	City**	State**	Zip**
Ethnicity**	O Non-His	panic O	Unknown				Phone		Contact
Pregnant? O Yes O No O	Unknown If Yes	s, Expected D	ate of Delivery?	MM	DD \	ΥΥ	Fax		
	MISCELLANE	OUS EXAMI	NATION				Requesto	r Informatio	n (Required)
: Time Collected**						Requestor's Name**			
						(Required)			
Date of Onset of Symptoms: / / / (required for Arboviral / Rickettsial tests) MM / DD / YYYY						//_	Date Colle	ected **	
Specimen:**	Specimen:**						PUR	POSE (Sele	ct One)
O Diagno O Contact O Rash F O Prenata				O Tuberculosis O Diagnostic O Contact O Rash Presen O Prenatal	O Family I O Rechect O Cluster t O Lesion F O Routine	Planning k specimen – Suspect Present Physical			
Notes: This form is for PRIVATE submitters only. O = Select only ONE; □ = Check ALL that apply; ** = Required fields; For times, use Military for					ry forr	mat HH:MM		06 EV. 06/01/2009	

ARKANSAS

Mycobacteriology/Mycology Form

DEPARTMENT OF HEALTH

PUBLIC HEALTH LABORATORY 201 South Monroe Little Rock, AR 72205

	Submitter Information (** Required fields)						
Patient's Last Name**	rst Name**		Middle initial	Submitter ID or #**	Submi	itter's Name**	
Address**	'			•	Submitter's Addres	s**	
City**	State**	Zip**	Co. of Residence**				
DOB(mm/dd/yy)** Sex** O Male O Fema	Race** C		O Black or An dian/Native Alaska O A aiian/Pacific Islander O C		City**	State**	Zip**
Ethnicity** O Hispanic	O Non-His	spanic O	Unknown		Phone		Contact
Pregnant? O Yes O No O	Unknown If Ye	s, Expected D	Date of Delivery?	DD YY	Fax		
	MYCOBACTER	OLOGY / MY	COLOGY				n (Required)
:Time Collected**	MYCOBACTERIOLOGY / MYCOLOGY : Time Collected**				Requestor's Name**		
Test Requested Specimen Type (Source of Specimen)				n)		(Required)	
O Mycobacteriology Smear & Culture O Mycobacteriology ID Referred Culture O Nebulized Sputum □ Bronchial Wash O Nebulized Sputum □ Bronchial Wash O Nebulized Sputum □ Bronchial Wash					d **		
O MTB/ RIF(requires physicia		O Othe	er (specify):		PUR	POSE (Selec	ct One)
O Mycology Culture O Mycology ID Referred Culture Clinical Information				O Diagnostic O Contact O Rash Present	O Family Pla O Recheck s O Cluster – S O Lesion Pre O Routine Ph	pecimen Suspect esent	
Notes: This form is for PRIVA = Select only ONE;			Required fields; For time	es, use Military f	ormat HH:MM		

ARKANSAS DEPARTMENT OF **HEALTH SERVICES**

Clinical Microbiology Form (BT Clinical, Enterics, Special Micro, Parasitology)

PUBLIC HEALTH LABORATORY 201 South Monroe, Mail Slot H47 Little Rock, AR 72205 3867

Detient Information	Cultimittee Is	nformation (** Required fields)			
Patient Information (** Required fields) atient's Last Name** First Name** Middle initial			Submitter ID or #		
Address**	Submitter's Addre	ess**			
	ip** Co. of Residence**		City**	State** Zip**	
O Male Race** O A	I I I I I I I I I I I I I I I I I I I				
Ethnicity**			Phone	Contact	
Pregnant? O Yes O No O Unknown If Yes, Expe	cted Date of Delivery?	DD YY	Fax		
ENTERICS	SPECIAL MICRO		Requestor's Name*	tor Information (Required)	
:Time Collected**	:Time Collected**				
Test Requested** □ Salmonella Shigella □ Campylobacter	Pure Cultures: ☐ Aerobe Organism suspected:		(Required)		
Shiga Toxin Producing E.coli Vibrio	Anaerobe Organism suspected:			JRPOSE (Select One)	
☐ Yersinia ☐ Other Specimen Source** O Blood ☐ Feces/stool O Urine O Wound/Abscess O Other: Specimen Type** O Isolate ☐ Stool O Broth O Other:	ID and typing Haemophilus Influenzae Neisseria Meningitidis Other Specimen Source** Blood Feces/stool Urine O Wound/Abscess O Other:		O Diagnostic	Confirmation	
BT Clinical	Parasitology				
Time Collected** BT Rule-Out** O R/O Bacillus anthracis/cereus O R/O Brucella O R/O Burkholderia mallei/pseudomallei O R/O Francisella tularensis O R/O Yersinia pestis Specimen Source** O Blood	Time Collected** Test Requested** O Ova and Parasites O Identification O Acid Fast Stain (Cryptosporidium, Cyclospora, Isospora) Specime O Feces O Ectopa O Other s				
O Feces/stool O Urine O Wound/Abscess O Other: Notes: This form is for PRIVATE submitters only O = Selectonly ONE; Check ALL that a	pply; ** = Required fields; For time	s, use Military for	mat HH:MM	REV. 03/30/2021	

Rabies

The rabies test is a test conducted on animals. Human testing is not conducted at ADH and must be prearranged with the CDC prior to collection. Contact the Rabies Lab for questions and further instructions at 501-661-2840.

The specimen (head of the animal) must be removed from the animal and stored at 35-46°F. Removal of the head from the animal should be performed by veterinarian or competent personnel with rabies pre-exposure vaccination.

- 1. Ship the specimen on cold packs (provided with the rabies kit). For large animals, submit the whole brain only. Do not ship live animals.
- 2. Pack rabies specimens by placing the specimen in the leak-proof zip-lock bag.
- 3. Chill the bag containing the specimen prior to packaging.
- 4. Place bag in the Styrofoam bucket with at least two frozen cold packs. Do not use heat or dry ice.
- 5. Place Styrofoam lid on bucket.
- 6. Place the Rabies Electronic Submission Form on the outside Styrofoam of the bucket, use the QR code, or login to website.
- 7. Seal the plastic shipping container with the plastic lid and place sealed bucket in the fiberboard box.
- 8. Place your return address label and the Arkansas Department of Health address label on the plastic shipping container before transporting. Address to:

Arkansas Department of Health Public Health Laboratory 201 S. Monroe St. Little Rock, AR 72205

9. Deliver the specimen as soon as possible. If a person has been bitten, it is strongly recommended that someone bring the specimen to the laboratory. *Please deliver to Specimen Receiving located on Palm Street (342 S. Palm Street, Little Rock, AR 72205), not the front door on Monroe Street.

During normal business hours (8:00 to 4:30) on Monday through Thursday, specimens may be dropped off at your nearest local health unit for delivery to the laboratory by the next day. Specimens can also be delivered directly to the laboratory by UPS. Specimens that are collected on Fridays, weekends or holidays should be kept cool until the following Monday for shipment.

The laboratory must be notified of all specimens arriving after normal business hours and the method of shipment by calling: **501-671-1429** or **501-661-2220**.

Rabies buckets and boxes can be obtained from the nearest Local Health Unit. Specimens received that are decomposed, damaged, or without completed paperwork are rejected. Specimens collected after courier pick- up, weekends, or holidays must be kept cool until next courier pick-up.

See the Rabies Electronic Submission Form on the following page.

FOR INTERNET SUBMISSION

For questions about filling out this form or submitting a specimen, please call 501-280-4136.



ARKANSAS DEPARTMENT OF HEALTH

Arkansas Public Health Laboratory, 201 S. Monroe, Little Rock, AR 72205

Rabies Electronic Submission Form

Instructions:

	Fill in the REQUIRED FOUR the specimen.	pieces of information below and submit this form with
	Submitter Name:	
2.		
	Submitter Address:	
3.		
	Species of animal submitted: (Ex: bat, cat, dog, skunk)	
•		kansas.gov/redcap/surveys/?s=WCYLK9E34N equired submission form and obtain your Redcap er the survey ID here:
4.	Redcap Survey ID Number:	

For information about rabies visit: https://www.healthv.arkansas.gov/programs-services/topics/rabies

Test Menu

ACID FAST STAIN (MODIFIED)

	AGID I AGI GIAIN (MODII 125)
Synonyms	Modified acid test, modified Kinyoun, fecal stain for the detection of the presence of <i>Cryptosporidium, Cyclospora</i> , or <i>Cystoisospora</i> test.
Patient Requirements	Routine examination for parasites prior to treatment, a minimum of three specimens collected on alternate days is recommended, collect specimens to determine the efficacy of treatment three to four weeks after completion of therapy, and order if patient has diarrhea.
Collection Requirements	Collect fecal specimens before use of barium, bismuth, etc. Collect in MCC Unifix or Total Fix single vial (or comparable transport system containing 10% formalin and PVA vials without Mercury). Add bloody, watery portions of stool to fill line marked on vial, seal and shake vigorously. Stool must be collected and filled to the fill line on the collection vials.
Specimen or Source	Stool
Volume	To fill line on collection vials. DO NOT OVERFILL.
Specimen Label	Each specimen should be labelled with patient name, date of birth, and time of collection.
Lab Form/Requisition Requirements	Each specimen must be accompanied by a test request form from the Lab Web Portal (AR LWP) or Clinical Microbiology Form (DOS-13).
Container	MCC Unifix or Total Fix single vial or dual vial system with 10% formalin and PVA without Mercury should be used for these specimens.
Storage Conditions	Specimens should be stored and shipped at room temperature (62-77°F).
Shipping Requirements	Specimens should be stored and shipped at room temperature (62-77°F) in atmosphere suitable for survival of isolate. Ship as infectious substance by ADH ground courier, certified overnight mail, submitter courier, or Federal Express in an infectious 6.2 container. Include a prepaid return address label and container will be returned.
Specimen Processing	Must be in an acceptable preservative.
Causes for Rejection	Under or overfilled specimens; dry specimens; leaking container; specimen contaminated with oil, barium, or urine; multiple specimens in a 24-hour period; and expired collection kits.
Normal Values	No parasite seen.
Methods	Concentration technique and modified Kinyoun acid fast stain by microscopic examination.
Turnaround Time	14 days
Clinical Significance and Interpretation	Possible cause of disease process
Comments	Foreign travel or continued symptoms.
·	

ASYMPTOMATIC BACTERIURIA FOR PRENATAL SCREENING

Synonyms	Bacteriuria
Patient Requirements	Collect on all pregnant women at 12-16 weeks gestation. Document if patient is allergic to penicillin
Collection Requirements	Must be a clean-voided midstream urine collection. Do not freeze.
Specimen or Source	Urine
Volume	≥3 ml
Specimen Label	Label with at least 2 unique identifiers- patient's name and date of birth.
Lab Form/Requisition Requirements	Complete MISC. Form (HL-06) on DOS-13.
Container	BD Vacutainer Urine Collection cup (for collection) and BD Vacutainer Plus C&S Preservative tube (for transport).
Storage Conditions	Room temperature (62-77°F). after collection. Testing must begin within 48 hours of collection
Shipping Requirements	Room temperature (62-77°F). Ship by ADH courier, certified overnight mail, submitter courier, or Federal Express in a diagnostic 6.2 container. Include a prepaid return address label and container will be returned. NOTE: Specimens must be received into the lab by 4:00pm on
Specimen Processing	Wednesdays. Do not collect specimens on Thursdays or Fridays. Transfer urine from collection cup to transport tube.
	·
Causes for Rejection	Specimens not collected from approved site, specimens not in approved collection kits, specimens not received within 48 hours of collection, specimens frozen or shipped cold, <u>and</u> expired BD vacutainer supplies. See 'Rejection Information' for other causes for rejection on DOS-7.
Normal Values	Negative < 100,000 colonies/ml
Methods	Standard ASM reference methodology
Turnaround Time	7 days
Clinical Significance and Interpretation	Possible harmful impact for patient and developing fetus.
Comments	N/A

BACTERIAL/CONFIRMATION OF ISOLATES

(REQUIRED SUBMISSION BY ADH EPIDEMIOLOGY)

	(Legonized Cobinication Albite in Demice Col)
Synonyms	Haemophilus influenzae (invasive), Listeria, Neisseria meningitidis, Neisseria gonorrhea, Staphylococcus aureus vancomycin resistant/intermediate, Strep pneumoniae for subtyping (invasive), S. pyogenes.
Patient Requirements	N/A
Collection Requirements	Pure isolate. Actively growing culture is required for this test on Blood or Chocolate Agar.
Specimen or Source	Varies by isolate
Volume	Actively growing culture
Specimen Label	Each specimen should be labelled with patient name, date of birth, and time of collection.
Lab Form/Requisition Requirements	Each specimen must be accompanied by a test request form from the Lab Web Portal (AR LWP) or Clinical Microbiology Form.
Container	Media appropriate for organism survival such as Blood or Chocolate Agar. Slants preferred.
Storage Conditions	Specimens should be stored and shipped at room temperature (62-77°F) in atmosphere suitable for survival of isolate.
Shipping Requirements	Specimens should be stored and shipped at room temperature (62-77°F) in atmosphere suitable for survival of isolate. Ship as infectious substance by ADH ground courier, certified overnight mail, submitter courier, or Federal Express in an infectious 6.2 container. Include a prepaid return address label and container will be returned.
Specimen Processing	Please indicate source of organism, results of any test performed, suspected infection, and any other pertinent information.
Causes for Rejection	Leaking/broken container or package; not submitted with the patient's name and/or other patient's identifier; not submitted with correct barcode and when scanned, name appearing in LIMS does not match name on the container; not shipped within acceptable temperature ranges; not shipped in appropriate transport containers; not received within acceptable timeframe for testing; lab accidents, and tests requested not available.
Normal Values	Negative
Methods	Standard ASM reference methodology
Turnaround Time	Turnaround time is isolate dependent. It may require referral to CDC.
Clinical Significance and Interpretation	Varies by isolate identified
Comments	N/A
T.	

BIOFIRE FILMARRAY GASTROENTEROLOGY PANEL

Synonyms	Biofire Filmarray Gastroenterology Panel, BioFire, GI Panel
Patient Requirements	None
Collection Requirements	Collect 2 stool specimens , one in Cary Blair transport media and one in a non-preservative container. Place container inside of biohazard bag in case of leakage.
Specimen or Source	Stool
Volume	Minimum 0.2 ml (200 ul)
Specimen Label	Label container with patient name, date of birth, and date and time of collection.
Lab Form/Requisition Requirements	Use MISC. Form (HL-06) and completely fill out form. See DOS-10.
Container	Sterile container with Cary Blair and sterile container with non-preservative.
Storage Conditions	Specimens should be shipped for testing as soon as possible. Storing specimens prior to shipping decreases viability. If storage is required, specimens can be held refrigerated (2-8°Cpreferred) or room temperature (15-25°Cacceptable) for up to 4 days.
Shipping Requirements	Transport specimens on cold packs.
	Ship by ADH courier, certified overnight mail, submitter courier, or Federal Express in a diagnostic 6.2 container. Include a prepaid return address label and container will be returned.
Specimen Processing	Immediately notify the Molecular laboratory when specimens have arrived.
Causes for Rejection	Unlabeled specimen, incomplete form, expired collection container, specimen that has leaked, or specimen that is greater than 4 days after collection.
Normal Values	Negative
Methods	Biofire Filmarray
Turnaround Time	Two business days. Turnaround may be extended if there is need to repeat the test.
Clinical Significance and Interpretation	A positive result could indicate any of 20 possible enteric pathogens.
Comments	Test should be requested for acute diagnosis only and not used as a follow-up test after treatment.

BIOFIRE FILMARRY PNEUMONIA PANEL

Synonyms	BIOFIRE Pneumonia Panel
Patient Requirements	Patient should not brush teeth or use mouthwash prior to collection. Rinse mouth with water prior to collection to avoid collecting food residue.
Collection Requirements	Collect sputum or BAL in sterile, empty container. Place container inside of biohazard bag in case of leakage.
Specimen or Source	Expectorated or induced sputum from lower respiratory tract collected according to standard technique.
	Bronchoalveolar (BAL)-like specimens (including BAL or mini-BAL) from lower respiratory tract collected according to standard technique.
	Do not submit saliva, oral cavity specimens, or upper respiratory specimens.
Volume	0.2 mL (200 uL).
Specimen Label	Specimen must be labeled with 2 unique identifiers: patient's full name and date of birth. Collection date and collection time may need to be included also.
Lab Form/Requisition Requirements	Complete MISC. Form (HL-06). See DOS-10.
Container	Sterile, empty sputum cup or container without transport media or preservatives.
Storage Conditions	To preserve specimen viability, storing specimens after collection is not recommended. If specimens must be stored, hold at 2-8°C no longer than able to receive at the PHL within 24 hours of collection.
Shipping Requirements	Ship on cold packs by ADH courier, certified overnight mail, submitter courier, or Federal Express in a diagnostic 6.2 container. Include a prepaid return address label and container will be returned.
Specimen Processing	N/A
Causes for Rejection	Unlabeled or incompletely labeled specimen, incomplete form, expired collection container, specimen that has leaked, specimen that is greater than 24 hours old from date and time of collection, or inappropriate specimens (i.e., saliva or oral cavity specimens or upper respiratory specimens).
Normal Values	Not Detected
Methods	BIOFIRE FilmArray multiplex nucleic acid test
Turnaround Time	2 business days
Clinical Significance and Interpretation	A positive result could indicate any of more than 30 bacteria, atypical bacteria, viruses, or antimicrobial resistance genes.
Comments	Submitters should contact Epidemiology prior to submitting BIOFIRE Pneumonia Panel specimens to report a case as suspect and to coordinate receipt of the specimen.
	Main Epidemiology number: 501-537-8969 After hours: 1-800-554-5738

BIOFIRE FILMARRAY RESPIRATORY PANEL

Synonyms	Biofire Filmarray Respiratory Panel, BioFire, RP Panel
Patient Requirements	None
Collection Requirements	Collect a nasopharyngeal swab and place in viral transport media.
Specimen or Source	Nasopharyngeal swab
Volume	Minimum of 300uL
Specimen Label	Label container with patient name, date of birth, and date and time of collection.
Lab Form/Requisition Requirements	Complete MISC. Form (HL-06) on DOS-10.
Container	Nasopharyngeal swab in Viral Transport Medium
Storage Conditions	Refrigerated (2-8°C) for up to 3 days (preferred); OR room temperature (15-25°C) for up to 4 hours (acceptable but not preferred); OR frozen (≤-80°C) for up to 30 days (acceptable).
Shipping Requirements	Transport specimens on cold packs by ADH courier, certified overnight mail, submitter courier, or Federal Express in a diagnostic 6.2 container. Include a prepaid return address label and container will be returned.
Specimen Processing	Immediately notify the Molecular laboratory when specimens have arrived.
Causes for Rejection	Unlabeled specimen, incomplete form, expired collection container, specimen that has leaked, or specimen that is greater than 3 days old.
Normal Values	Negative
Methods	Biofire Filmarray
Turnaround Time	Two business days. Turnaround may be extended if there is need to repeat the test.
Clinical Significance and Interpretation	A positive result could indicate an infection with any of 20 possible respiratory pathogens.
Comments	A positive influenza specimen will be confirmed at the ADH State Laboratory for influenza A subtyping or influenza B genotyping by RT-PCR

BLOOD FILMS, MALARIA, AND OTHER BLOOD PARASITES

Blood Smear, Blood Film for Plasmodium species, Babesia species, Trypanosoma cruzi, and other blood parasites Patient Requirements Prepared and stained thick and thin slides blood smear slides and EDTA whole blood may be submitted for confirmation only. Collection Blood specimens should collected and be stored in leak-proof containers and kept refrigerated (2-8°C) at all times. Smears should be prepared and stained with Giernsa stain. Specimen or Source EDTA Blood and Blood Smears Volume 0.2 mL Specimen Label Each specimen should be labelled with patient name, date of birth and time of collection. Lab Form/Requisition Requirements Each specimen must be accompanied by a test request form from the Lab Web Portal (AR LWP) or Clinical Microbiology Form. Container Leak-proof container. Storage Conditions Specimens should be stored in leak-proof containers and kept refrigerated (2-8°C) at all times. Shipping Requirements Ship to CDC within 21 days of collection. Causes for Rejection Leaking/broken container or package; not submitted with the patient's name and/or other patient's identifier; not submitted with correct barcode and; when scanned, name appearing in LIMS does not match name on the container; not shipped within acceptable temperature ranges; not shipped in appropriate transport containers; not received within acceptable timeframe for testing; lab accidents, and tests requested not available. Normal Values Megative Methods Molecular detection and/or Microscopy. CDC referrals. Turnaround Time 7 days Clinical Signifficance and Interpretation		
Collection Requirements Blood specimens should collected and be stored in leak-proof containers and kept refrigerated (2-8°C) at all times. Smears should be prepared and stained with Giernsa stain. Specimen or Source EDTA Blood and Blood Smears Volume 0.2 mL Specimen Label Each specimen should be labelled with patient name, date of birth and time of collection. Lab Form/Requisition Requirements Each specimen must be accompanied by a test request form from the Lab Web Portal (AR LWP) or Clinical Microbiology Form. Container Leak-proof container. Storage Conditions Specimens should be stored in leak-proof containers and kept refrigerated (2-8°C) at all times. Shipping Requirements Specimen Processing Stored in leak-proof containers and kept always refrigerated (2-8°C). Causes for Rejection Leaking/broken container or package; not submitted with the patient's name and/or other patient's identifier; not submitted with correct barcode and; when scanned, name appearing in LIMS does not match name on the container; not shipped within acceptable temperature ranges; not shipped in appropriate transport containers; not received within acceptable timeframe for testing; lab accidents, and tests requested not available. Normal Values Melecular detection and/or Microscopy. CDC referrals. Turnaround Time 7 days Clinical Significance and Interpretation	Synonyms	
Requirements kept refrigerated (2-8°C) at all times. Smears should be prepared and stained with Glemsa stain. Specimen or Source EDTA Blood and Blood Smears Volume 0.2 mL Specimen Label Each specimen should be labelled with patient name, date of birth and time of collection. Lab Form/Requisition Requirements Each specimen must be accompanied by a test request form from the Lab Web Portal (AR LWP) or Clinical Microbiology Form. Container Leak-proof container. Storage Conditions Specimens should be stored in leak-proof containers and kept refrigerated (2-8°C) at all times. Shipping Requirements Ship to CDC within 21 days of collection. Specimen Processing Stored in leak-proof containers and kept always refrigerated (2-8°C). Causes for Rejection Leaking/broken container or package; not submitted with the patient's name and/or other patient's identifier; not submitted with correct barcode and; when scanned, name appearing in LIMS does not match name on the container; not shipped within acceptable temperature ranges; not shipped in appropriate transport containers; not received within acceptable timeframe for testing; lab accidents, and tests requested not available. Normal Values Molecular detection and/or Microscopy. CDC referrals. Turnaround Time 7 days Clinical Significance and Interpretation Varies by specimen	Patient Requirements	
Volume 0.2 mL Specimen Label Each specimen should be labelled with patient name, date of birth and time of collection. Lab Form/Requisition Requirements Each specimen must be accompanied by a test request form from the Lab Web Portal (AR LWP) or Clinical Microbiology Form. Container Leak-proof container. Storage Conditions Specimens should be stored in leak-proof containers and kept refrigerated (2-8°C) at all times. Shipping Requirements Ship to CDC within 21 days of collection. Specimen Processing Stored in leak-proof containers and kept always refrigerated (2-8°C). Causes for Rejection Leaking/broken container or package; not submitted with the patient's name and/or other patient's identifier; not submitted with correct barcode and; when scanned, name appearing in LIMS does not match name on the container; not shipped within acceptable temperature ranges; not shipped in appropriate transport containers; not received within acceptable timeframe for testing; lab accidents, and tests requested not available. Normal Values Negative Methods Molecular detection and/or Microscopy. CDC referrals. Turnaround Time 7 days Clinical Significance and Interpretation Varies by specimen		kept refrigerated (2-8°C) at all times. Smears should be prepared and stained
Specimen Label Each specimen should be labelled with patient name, date of birth and time of collection. Each specimen must be accompanied by a test request form from the Lab Web Portal (AR LWP) or Clinical Microbiology Form. Container Leak-proof container. Storage Conditions Specimens should be stored in leak-proof containers and kept refrigerated (2-8°C) at all times. Shipping Requirements Specimen Processing Stored in leak-proof containers and kept always refrigerated (2-8°C). Leaking/broken container or package; not submitted with the patient's name and/or other patient's identifier; not submitted with correct barcode and; when scanned, name appearing in LIMS does not match name on the container; not shipped within acceptable temperature ranges; not shipped in appropriate transport containers; not received within acceptable timeframe for testing; lab accidents, and tests requested not available. Normal Values Methods Molecular detection and/or Microscopy. CDC referrals. Turnaround Time 7 days Clinical Significance and Interpretation Varies by specimen	Specimen or Source	EDTA Blood and Blood Smears
Lab Form/Requisition Requirements Each specimen must be accompanied by a test request form from the Lab Web Portal (AR LWP) or Clinical Microbiology Form. Container Leak-proof container. Storage Conditions Specimens should be stored in leak-proof containers and kept refrigerated (2-8°C) at all times. Shipping Requirements Ship to CDC within 21 days of collection. Specimen Processing Stored in leak-proof containers and kept always refrigerated (2-8°C). Causes for Rejection Leaking/broken container or package; not submitted with the patient's name and/or other patient's identifier; not submitted with correct barcode and; when scanned, name appearing in LIMS does not match name on the container; not shipped within acceptable temperature ranges; not shipped in appropriate transport containers; not received within acceptable timeframe for testing; lab accidents, and tests requested not available. Normal Values Megative Methods Molecular detection and/or Microscopy. CDC referrals. Turnaround Time 7 days Clinical Significance and Interpretation Varies by specimen	Volume	0.2 mL
Requirements Web Portal (AR LWP) or Clinical Microbiology Form. Container Leak-proof container. Storage Conditions Specimens should be stored in leak-proof containers and kept refrigerated (2-8°C) at all times. Shipping Requirements Ship to CDC within 21 days of collection. Specimen Processing Stored in leak-proof containers and kept always refrigerated (2-8°C). Causes for Rejection Leaking/broken container or package; not submitted with the patient's name and/or other patient's identifier; not submitted with correct barcode and; when scanned, name appearing in LIMS does not match name on the container; not shipped within acceptable temperature ranges; not shipped in appropriate transport containers; not received within acceptable timeframe for testing; lab accidents, and tests requested not available. Normal Values Negative Methods Molecular detection and/or Microscopy. CDC referrals. Turnaround Time 7 days Clinical Significance and Interpretation Varies by specimen	Specimen Label	·
Storage Conditions Specimens should be stored in leak-proof containers and kept refrigerated (2-8°C) at all times. Shipping Requirements Ship to CDC within 21 days of collection. Specimen Processing Stored in leak-proof containers and kept always refrigerated (2-8°C). Causes for Rejection Leaking/broken container or package; not submitted with the patient's name and/or other patient's identifier; not submitted with correct barcode and; when scanned, name appearing in LIMS does not match name on the container; not shipped within acceptable temperature ranges; not shipped in appropriate transport containers; not received within acceptable timeframe for testing; lab accidents, and tests requested not available. Normal Values Methods Molecular detection and/or Microscopy. CDC referrals. Turnaround Time 7 days Clinical Significance and Interpretation Varies by specimen		
Shipping Requirements Ship to CDC within 21 days of collection. Specimen Processing Stored in leak-proof containers and kept always refrigerated (2-8°C). Causes for Rejection Leaking/broken container or package; not submitted with the patient's name and/or other patient's identifier; not submitted with correct barcode and; when scanned, name appearing in LIMS does not match name on the container; not shipped within acceptable temperature ranges; not shipped in appropriate transport containers; not received within acceptable timeframe for testing; lab accidents, and tests requested not available. Normal Values Negative Methods Molecular detection and/or Microscopy. CDC referrals. Turnaround Time 7 days Clinical Significance and Interpretation Varies by specimen	Container	Leak-proof container.
RequirementsStored in leak-proof containers and kept always refrigerated (2-8°C).Causes for RejectionLeaking/broken container or package; not submitted with the patient's name and/or other patient's identifier; not submitted with correct barcode and; when scanned, name appearing in LIMS does not match name on the container; not shipped within acceptable temperature ranges; not shipped in appropriate transport containers; not received within acceptable timeframe for testing; lab accidents, and tests requested not available.Normal ValuesNegativeMethodsMolecular detection and/or Microscopy. CDC referrals.Turnaround Time7 daysClinical Significance and InterpretationVaries by specimen	Storage Conditions	
Causes for Rejection Leaking/broken container or package; not submitted with the patient's name and/or other patient's identifier; not submitted with correct barcode and; when scanned, name appearing in LIMS does not match name on the container; not shipped within acceptable temperature ranges; not shipped in appropriate transport containers; not received within acceptable timeframe for testing; lab accidents, and tests requested not available. Normal Values Methods Molecular detection and/or Microscopy. CDC referrals. Turnaround Time 7 days Clinical Significance and Interpretation Varies by specimen		Ship to CDC within 21 days of collection.
and/or other patient's identifier; not submitted with correct barcode and; when scanned, name appearing in LIMS does not match name on the container; not shipped within acceptable temperature ranges; not shipped in appropriate transport containers; not received within acceptable timeframe for testing; lab accidents, and tests requested not available. Normal Values Negative Methods Molecular detection and/or Microscopy. CDC referrals. Turnaround Time 7 days Clinical Significance and Interpretation Varies by specimen	Specimen Processing	Stored in leak-proof containers and kept always refrigerated (2-8°C).
Methods Molecular detection and/or Microscopy. CDC referrals. Turnaround Time 7 days Clinical Significance and Interpretation Varies by specimen	Causes for Rejection	and/or other patient's identifier; not submitted with correct barcode and; when scanned, name appearing in LIMS does not match name on the container; not shipped within acceptable temperature ranges; not shipped in appropriate transport containers; not received within acceptable timeframe for testing;
Turnaround Time 7 days Clinical Significance and Interpretation Varies by specimen	Normal Values	Negative
Clinical Significance and Interpretation Varies by specimen	Methods	Molecular detection and/or Microscopy. CDC referrals.
and Interpretation	Turnaround Time	7 days
		Varies by specimen
Comments PHL will review prepared and stained slides only.	Comments	PHL will review prepared and stained slides only.

BLOOD TYPE AND ANTIBODY SCREEN

Synonyms	Type/Screen
Patient Requirements	N/A
Collection Requirements	Blood collected in purple top (ETDA) is preferred, or red top (unseparated). Label specimen with the patient's full name and barcode.
Specimen or Source	Whole blood
Volume	Full tube (7 mL or 3 mL)
Specimen Label	Label with at least 2 unique identifiers - patient's name and date of birth.
Lab Form/Requisition Requirements	Private submitters should send MISC. Form (HL-06) with specimen. See DOS-10.
Container	EDTA Tube (Purple top), Red top tube
Storage Conditions	At 35-46°F in:
	Purple top up to 7 days. Do not freeze.
	Red top up to 14 days. Do not freeze.
Shipping Requirements	Ship cold (35-46°F) with cold packs.
	Ship by ADH courier, certified overnight mail, submitter courier, or Federal Express in a diagnostic 6.2 container. Include a prepaid return address label and container will be returned.
Specimen Processing	If there is a delay in testing, refrigerate specimen at 35-46°F.
Causes for Rejection	Hemolysis, specimen older than 7 days, specimen not cold when received, and quantity insufficient.
	See 'Rejection Information' for other causes for rejection (DOS-7).
Normal Values	N/A
Methods	Tube, Solid Phase System
Turnaround Time	4 days
Clinical Significance and Interpretation	Rh negative patient must be monitored for any antibody that may cause hemolytic disease of the newborn.
	Rh negative patients are given Rhogam at 28- 32 weeks into the pregnancy.
Comments	Positive antibody screen result must be reported to Perinatal Health. Any antibody screen positive patient needs to be referred to a private MD.

BRUCELLA ABORTUS SEROLOGY

Synonyms	B. Abortus
Patient Requirements	N/A
Collection Requirements	Include date of onset.
Specimen or Source	Serum only
Volume	1 mL of serum
Specimen Label	Label with at least 2 unique identifiers - patient's name and date of birth.
Lab Form/Requisition Requirements	Complete Miscellaneous Form (HL-06) and include date of onset (See DOS-10).
Container	Collect in SST and centrifuge.
Storage Conditions	Refrigerate (35-46°F) serum in plastic tube for the first 72 hours.
Shipping Requirements	Ship cold (35-46°F) with cold packs.
	Ship by ADH courier, certified overnight mail, submitter courier, or Federal Express in a diagnostic 6.2 container. Include a prepaid return address label and container will be returned.
Specimen Processing	Separate specimens off the clot before sending to Public Health Laboratory. Transfer serum into a plastic tube.
Causes for Rejection	Too old, not shipped at correct temperature, and/or hemolyzed.
Normal Values	Negative
Methods	Sent to CDC
Turnaround Time	4 – 6 weeks
Clinical Significance and Interpretation	Confirmatory tube test will be performed. Titer of > 1:80 indicates exposure at some undetermined time.

CAMPYLOBACTER CULTURE OR CONFIRMATION

Synonyms	Campylobacter species stool culture or confirmation
Patient Requirements	Should be symptomatic with diarrhea
Collection Requirements	Pure isolate is preferred. Collect feces/stool in Cary-Blair stool transport media. Stool must be collected and filled to the fill line on the collection vial. Rectal Swab (children only): Collect on a culturette with Cary-Blair transport media. Collect according to instructions on package. Stool specimen must be received in 4 days of collection.
Specimen or Source	Any source. Isolates or feces/stool.
Volume	Actively growing culture or Cary-Blair stool transport media. Fill container with feces until liquid is at line on vial. Mix well. (Follow kit instructions.)
Specimen Label	Each specimen should be labelled with patient name, date of birth, and time of collection.
Lab Form/Requisition Requirements	Each specimen must be accompanied by a test request form from the Lab Web Portal (AR LWP) or Clinical Microbiology Form (DOS-13).
Container	Media appropriate for organism survival, Cary-Blair stool or culturette with Cary-Blair transport media.
Storage Conditions	Specimens should be stored and shipped at room temperature (62-77°F) in microaerophilic atmosphere suitable for survival of isolate.
Shipping Requirements	Specimens should be stored and shipped at room temperature (62-77°F) in microaerophilic atmosphere suitable for survival of isolate. Cary-Blair
	stool must be received and set up within 4 days of collection. Ship as infectious substance by ADH ground courier, certified overnight mail, submitter courier, or Federal Express in an infectious 6.2 container. Include a prepaid return address label and container will be returned. NOTE: Specimens must be received into the lab by 4:00pm on Wednesdays. Do not collect specimens on Thursdays or Fridays.
Specimen Processing	Ship as infectious substance by ADH ground courier, certified overnight mail, submitter courier, or Federal Express in an infectious 6.2 container. Include a prepaid return address label and container will be returned. NOTE: Specimens must be received into the lab by 4:00pm on
Specimen Processing Causes for Rejection	Ship as infectious substance by ADH ground courier, certified overnight mail, submitter courier, or Federal Express in an infectious 6.2 container. Include a prepaid return address label and container will be returned. NOTE: Specimens must be received into the lab by 4:00pm on Wednesdays. Do not collect specimens on Thursdays or Fridays. Isolates, or stool collected and filled to the fill line on the collection vial.
	Ship as infectious substance by ADH ground courier, certified overnight mail, submitter courier, or Federal Express in an infectious 6.2 container. Include a prepaid return address label and container will be returned. NOTE: Specimens must be received into the lab by 4:00pm on Wednesdays. Do not collect specimens on Thursdays or Fridays. Isolates, or stool collected and filled to the fill line on the collection vial. DO NOT OVERFILL Overfilled, leaking/broken containers, multiple specimens (more than 1 in a 24- hour period), dry specimen, and stools or swabs not in Cary- Blair
Causes for Rejection	Ship as infectious substance by ADH ground courier, certified overnight mail, submitter courier, or Federal Express in an infectious 6.2 container. Include a prepaid return address label and container will be returned. NOTE: Specimens must be received into the lab by 4:00pm on Wednesdays. Do not collect specimens on Thursdays or Fridays. Isolates, or stool collected and filled to the fill line on the collection vial. DO NOT OVERFILL Overfilled, leaking/broken containers, multiple specimens (more than 1 in a 24- hour period), dry specimen, and stools or swabs not in Cary- Blair transport vial, expired transport medium. Diapers are not acceptable.
Causes for Rejection Normal Values	Ship as infectious substance by ADH ground courier, certified overnight mail, submitter courier, or Federal Express in an infectious 6.2 container. Include a prepaid return address label and container will be returned. NOTE: Specimens must be received into the lab by 4:00pm on Wednesdays. Do not collect specimens on Thursdays or Fridays. Isolates, or stool collected and filled to the fill line on the collection vial. DO NOT OVERFILL Overfilled, leaking/broken containers, multiple specimens (more than 1 in a 24- hour period), dry specimen, and stools or swabs not in Cary- Blair transport vial, expired transport medium. Diapers are not acceptable. Negative Campylobacter
Causes for Rejection Normal Values Methods	Ship as infectious substance by ADH ground courier, certified overnight mail, submitter courier, or Federal Express in an infectious 6.2 container. Include a prepaid return address label and container will be returned. NOTE: Specimens must be received into the lab by 4:00pm on Wednesdays. Do not collect specimens on Thursdays or Fridays. Isolates, or stool collected and filled to the fill line on the collection vial. DO NOT OVERFILL Overfilled, leaking/broken containers, multiple specimens (more than 1 in a 24- hour period), dry specimen, and stools or swabs not in Cary- Blair transport vial, expired transport medium. Diapers are not acceptable. Negative Campylobacter Standard reference methods for above organism isolation and identification.

CARBAPENEM PRODUCING ORGANISMS (CPO)

Causes for Rejection Duplicate samples; leaking/broken container, or package; not submitted with the patient's name and/or other patient's identifier; not submitted with correct barcode and, when scanned, name appearing in LIMS does not match name on the container; not shipped within acceptable temperature ranges; not shipped in appropriate transport containers; not received within acceptable timeframe for testing; lab accidents, and tests requested not available. Normal Values Negative Methods ASM standard reference material and CDC protocols Turnaround Time Sworking days Clinical Significance and Interpretation Varies by isolate identified.		CARBAI EILEM I ROBOURIO GROAMOMO (CI O)
Collection Requirements Pure Isolate. Actively growing culture is required for this test. Specimen or Source Varies by organism. Actively growing culture. Specimen Label Each specimen should be labelled with patient name, date of birth, and time of collection. Lab Form/Requisition Requirements Each specimen must be accompanied by a CPO test request form from the Lab Web Portal (AR LWP) or Clinical Microbiology Form (DOS-13). Container Media appropriate for organism survival such as Blood Agar. Slants are preferred. Storage Conditions Specimens should be stored and shipped at room temperature (62-77°F) in atmosphere suitable for survival of isolate. Shipping Requirements Specimens should be stored and shipped at room temperature (62-77°F) in atmosphere suitable for survival of isolate. Specimen should be stored and shipped at room temperature (62-77°F) in atmosphere suitable for survival of isolate. Specimen should be stored and shipped at room temperature (62-77°F) in atmosphere suitable for survival of isolate. Specimen at indicate survival of isolate. Specimen at indicate source of organism, results of any test performed, suspected organism, and any reports of Antibiotic Suspectable Testing performed. Causes for Rejection Duplicate samples; leaking/broken container, or package; not submitted with the patient's name and/or other patient's identifier; not submitted with correct barcode and, when scanned, name appearing in LIMS does not match name on the container; not shipped within acceptable temperature ranges; not shipped in appropriate transport containers; not received within acceptable timeframe for testing; lab accidents, and tests requested not available. Normal Values Negative Methods ASM standard reference material and CDC protocols Turnaround Time Clinical Significance and Interpretation	Synonyms	Enterobacterales (CRE), Carbapenemase Resistant Pseudomonas aeruginosa (CRPA) and Carbapenemase Resistant Acinetobacter
Requirements Specimen or Source Varies by organism.	Patient Requirements	
Volume		Pure Isolate. Actively growing culture is required for this test.
Each specimen should be labelled with patient name, date of birth, and time of collection.	Specimen or Source	Varies by organism.
Causes for Rejection Duplicate samples; leaking/broken container, or package; not submitted with the patient's name and/or other patient's identifier, not shipped in appropriate transport container, not shipped in appropriate transport container, not shipped in appropriate transport container, so working days Normal Values Normal Values Negative Ne	Volume	Actively growing culture.
Container Media appropriate for organism survival such as Blood Agar. Slants are preferred.	Specimen Label	
Storage Conditions Specimens should be stored and shipped at room temperature (62-77°F) in atmosphere suitable for survival of isolate. Shipping Requirements Specimens should be stored and shipped at room temperature (62-77°F) in atmosphere suitable for survival of isolate. Ship as infectious substance by ADH ground courier, certified overnight mail, submitter courier, or Federal Express in an infectious 6.2 container. Include a prepaid return address label and container will be returned. Specimen Processing Please indicate source of organism, results of any test performed, suspected organism, and any reports of Antibiotic Suspectable Testing performed. Causes for Rejection Duplicate samples; leaking/broken container, or package; not submitted with the patient's name and/or other patient's identifier; not submitted with correct barcode and, when scanned, name appearing in LIMS does not match name on the container; not shipped within acceptable temperature ranges; not shipped in appropriate transport containers; not received within acceptable timeframe for testing; lab accidents, and tests requested not available. Normal Values Negative Methods ASM standard reference material and CDC protocols Turnaround Time Clinical Significance and Interpretation Varies by isolate identified.		
atmosphere suitable for survival of isolate. Shipping Requirements Specimens should be stored and shipped at room temperature (62-77°F) in atmosphere suitable for survival of isolate. Ship as infectious substance by ADH ground courier, certified overnight mail, submitter courier, or Federal Express in an infectious 6.2 container. Include a prepaid return address label and container will be returned. Specimen Processing Please indicate source of organism, results of any test performed, suspected organism, and any reports of Antibiotic Suspectable Testing performed. Causes for Rejection Duplicate samples; leaking/broken container, or package; not submitted with the patient's name and/or other patient's identifier; not submitted with correct barcode and, when scanned, name appearing in LIMS does not match name on the container; not shipped within acceptable temperature ranges; not shipped in appropriate transport containers; not received within acceptable timeframe for testing; lab accidents, and tests requested not available. Normal Values Negative Methods ASM standard reference material and CDC protocols Turnaround Time Sworking days Varies by isolate identified.	Container	, , , , , , , , , , , , , , , , , , ,
atmosphere suitable for survival of isolate. Ship as infectious substance by ADH ground courier, certified overnight mail, submitter courier, or Federal Express in an infectious 6.2 container. Include a prepaid return address label and container will be returned. Specimen Processing Please indicate source of organism, results of any test performed, suspected organism, and any reports of Antibiotic Suspectable Testing performed. Duplicate samples; leaking/broken container, or package; not submitted with the patient's name and/or other patient's identifier; not submitted with correct barcode and, when scanned, name appearing in LIMS does not match name on the container; not shipped within acceptable temperature ranges; not shipped in appropriate transport containers; not received within acceptable timeframe for testing; lab accidents, and tests requested not available. Normal Values Negative Methods ASM standard reference material and CDC protocols Turnaround Time Clinical Significance and Interpretation Varies by isolate identified.	Storage Conditions	
Causes for Rejection Duplicate samples; leaking/broken container, or package; not submitted with the patient's name and/or other patient's identifier; not submitted with correct barcode and, when scanned, name appearing in LIMS does not match name on the container; not shipped within acceptable temperature ranges; not shipped in appropriate transport containers; not received within acceptable timeframe for testing; lab accidents, and tests requested not available. Normal Values Negative Methods ASM standard reference material and CDC protocols Turnaround Time S working days Varies by isolate identified.		atmosphere suitable for survival of isolate. Ship as infectious substance by ADH ground courier, certified overnight mail, submitter courier, or Federal Express in an infectious 6.2 container. Include a prepaid return address
the patient's name and/or other patient's identifier; not submitted with correct barcode and, when scanned, name appearing in LIMS does not match name on the container; not shipped within acceptable temperature ranges; not shipped in appropriate transport containers; not received within acceptable timeframe for testing; lab accidents, and tests requested not available. Normal Values Negative Methods ASM standard reference material and CDC protocols Turnaround Time 5 working days Clinical Significance and Interpretation Varies by isolate identified.	Specimen Processing	Please indicate source of organism, results of any test performed, suspected organism, and any reports of Antibiotic Suspectable Testing performed.
Methods ASM standard reference material and CDC protocols Turnaround Time 5 working days Clinical Significance and Interpretation Varies by isolate identified.	Causes for Rejection	shipped in appropriate transport containers; not received within acceptable
Turnaround Time 5 working days Clinical Significance and Interpretation Varies by isolate identified.	Normal Values	Negative
Clinical Significance and Interpretation Varies by isolate identified.	Methods	ASM standard reference material and CDC protocols
and Interpretation	Turnaround Time	5 working days
Comments N/A		Varies by isolate identified.
	Comments	N/A

CONGENITAL ADRENAL HYPERPLASIA 2nd TIER TESTING

Synonyms	CAH
Patient Requirements	N/A
Collection Requirements	The blood spots are collected as described in NBS protocol. See DOS-6.
Specimen or Source	Dried blood spot
Volume	The optimal amount of specimen that fills the blood spot uniformly.
Specimen Label	Label with at least 2 unique identifiers - patient's name and date of birth.
Lab Form/Requisition Requirements	Internal second tier test for NBS.
Container	FDA approved filter paper, form HL-11
Storage Conditions	Room temperature, returned to NBS immediately after processing.
Shipping Requirements	Room temperature, in-house transfer.
Specimen Processing	According to NBS protocol
Causes for Rejection	The criteria for unacceptable specimens are described in NBS protocol. See DOS-6.
Normal Values	Reportable range: 17-OHP: 4.5 – 500ng/mL Cortisol: 10.8 – 500ng/mL Androstenedione: 1.7–500ng/mL. Will provide a pseudo ratio if out of range.
Methods	17α-Hydroxyprogesterone in Newborn Blood Spots by LC-MS/MS
Turnaround Time	Within 3 working days of receipt.
Clinical Significance and Interpretation	N/A
Comments	CAH <1.4 as reference; will be flagged if ≥
	17-OHP <9.4 as reference; will be flagged if ≥

CULTURE, ROUTINE FECES

	<u> </u>
Synonyms	Routine enteric pathogen isolated-includes Salmonella, Shigella, STEC, and Campylobacter.
Patient Requirements	Should be symptomatic with diarrhea
Collection Requirements	Collect feces/stool in Cary-Blair stool transport media. Stool must be collected and filled to the fill line on the collection vial.
	Rectal Swab (children only): Collect on a culturette with Cary-Blair transport media. Collect according to instructions on package. Stool specimen must be received in 4 days of collection.
Specimen or Source	Feces/stool.
Volume	Cary-Blair stool transport media. Fill container with feces until liquid is at line on vial. Mix well. (Follow kit instructions.)
Specimen Label	Each specimen should be labelled with patient name, date of birth, and time of collection.
Lab Form/Requisition Requirements	Each specimen must be accompanied by a test request form from the Lab Web Portal (AR LWP) or Clinical Microbiology Form.
Container	Cary-Blair stool or culturette with Cary-Blair transport media.
Storage Conditions	Specimens should be stored and shipped at room temperature (62-77°F). Specimen must be received in 4 days of collection. DO NOT REFRIGERATE.
Shipping Requirements	Specimens should be stored and shipped at room temperature (62-77°F). Cary-Blair stool must be received in 4 days of collection. Ship as infectious substance by ADH ground courier, certified overnight mail, submitter courier, or Federal Express in an infectious 6.2 container. Include a prepaid return address label and container will be returned. NOTE: Specimens must be received into the lab by 4:00pm on Wednesdays. Do not collect specimens on Thursdays or Fridays.
Specimen Processing	Stool must be collected and filled to the fill line on the collection vial. DO NOT OVERFILL.
Causes for Rejection	Overfilled, leaking/broken containers, multiple specimens (more than 1 in a 24- hour period), dry specimen, and swab in Cary- Blair transport vial, expired transport medium. Diapers are not acceptable.
Normal Values	Negative for Enteric Pathogens.
Methods	Standard reference methods for above organism isolation and identification.
Turnaround Time	Negative results within 96 hours. Results by 7 days Results depend on organism isolated.
Clinical Significance and Interpretation	Possible cause of disease process.
and intorprotation	

VIBRIO CULTURE OR CONFIRMATION

	VIDIO OCTORE OR CONTINUENTION
Synonyms	Vibrio species stool culture or confirmation.
Patient Requirements	Should be symptomatic with diarrhea.
Collection Requirements	Pure isolate preferred. Collect feces/stool in Cary-Blair stool transport media. Stool must be collected and filled to the fill line on the collection vial. Rectal Swab (children only): Collect on a culturette with Cary-Blair transport media. Collect according to instructions on package.
Specimen or Source	Any source. Pure isolate or feces/stool.
Volume	Actively growing culture or Cary-Blair stool transport media. Fill container with feces until liquid is at line on vial. Mix well. (Follow kit instructions.)
Specimen Label	Each specimen should be labelled with patient name, date of birth, and time of collection.
Lab Form/Requisition Requirements	Each specimen must be accompanied by a test request form from the Lab Web Portal (AR LWP) or Clinical Microbiology Form.
Container	Media appropriate for organism survival. Cary-Blair stool or culturette with Cary-Blair transport media.
Storage Conditions	Specimens should be stored and shipped at room temperature (62-77°F). Specimen must be received in 4 days of collection. DO NOT REFRIGERATE.
Shipping Requirements	Specimens should be stored and shipped at room temperature (62-77°F). Cary-Blair stool must be received in 4 days of collection. Ship as infectious substance by ADH ground courier, certified overnight mail, submitter courier, or Federal Express in an infectious 6.2 container. Include a prepaid return address label and container will be returned. NOTE: Specimens must be received into the lab by 4:00pm on Wednesdays. Do not collect specimens on Thursdays or Fridays.
Specimen Processing	Isolates or stool collected and filled to the fill line on the collection vial. DO NOT OVERFILL.
Causes for Rejection	Overfilled, leaking/broken containers, multiple specimens (more than 1 in a 24-hour period), dry specimen, and swab in Cary- Blair transport vial, expired transport medium. Diapers are not acceptable.
Normal Values	Negative for Vibrio
Methods	Standard reference methods for above organism isolation and identification
Turnaround Time	Results by 7 days, unless referred to CDC
Clinical Significance and Interpretation	Possible cause of disease process
Comments	N/A
	<u>I</u>

YERSINIA CULTURE OR CONFIRMATION

Synonyms	Yersinia species stool culture or confirmation
Patient Requirements	Should be symptomatic with diarrhea
Collection Requirements	Pure isolate preferred. Collect feces/stool in Cary-Blair stool transport media. Stool must be collected and filled to the fill line on the collection vial. Rectal Swab (children only): Collect on a culturette with Cary-Blair transport media. Collect according to instructions on package.
Specimen or Source	Any source. Pure isolate or feces/stool.
Volume	Actively growing culture or Cary-Blair stool transport media. Fill container with feces until liquid is at line on vial. Mix well. (Follow kit instructions)
Specimen Label	Each specimen should be labelled with patient name, date of birth, and time of collection
Lab Form/Requisition Requirements	Each specimen must be accompanied by a test request form from the Lab Web Portal (AR LWP) or Clinical Microbiology Form (DOS-12).
Container	Media appropriate for organism survival, Cary-Blair stool or culturette with Cary-Blair transport media.
Storage Conditions	Specimens should be stored and shipped at room temperature (62-77°F). DO NOT REFRIGERATE.
Shipping Requirements	Specimens should be stored and shipped at room temperature (62-77°F). Cary-Blair stool must be received in 4 days of collection.
	Ship as infectious substance by ADH ground courier, certified overnight mail, submitter courier, or Federal Express in an infectious 6.2 container. Include a prepaid return address label and container will be returned. NOTE: Specimens must be received into the lab by 4:00pm on Wednesdays. Do not collect specimens on Thursdays or Fridays.
Specimen Processing	Isolates or stool collected and filled to the fill line on the collection vial. DO NOT OVERFILL.
Causes for Rejection	Overfilled, leaking/broken containers, multiple specimens (more than 1 in a 24- hour period), dry specimen, and swab in Cary- Blair transport vial, expired transport medium. Diapers are not acceptable.
Normal Values	Negative for Yersinia
Methods	Standard reference methods for above organism isolation and identification
Turnaround Time	Results by 7 days, unless referred to CDC
Clinical Significance and Interpretation	Possible cause of disease process
Comments	N/A

CYSTIC FIBROSIS 2nd TIER TESTING

Synonyms	CFTR
Patient Requirements	N/A
Collection Requirements	The blood spots are collected as described in NBS protocol. See DOS-6.
Specimen or Source	Dried blood spot
Volume	The optimal amount of specimen that fills the blood spot uniformly.
Specimen Label	Label with at least 2 unique identifiers- name and date of birth.
Lab Form/Requisition Requirements	Internal second tier test for NBS.
Container	FDA approved filter paper, form HL-11
Storage Conditions	Room temperature, returned to NBS immediately after processing.
Shipping Requirements	Room temperature, in-house transfer.
Specimen Processing	According to NBS protocol
Causes for Rejection	The criteria for unacceptable specimens are described in NBS protocol. (See DOS-6) Examples: insufficient quantity, incomplete form, filter paper expired.
Normal Values	No mutation detected
Methods	DNA extraction, xTAG Cystic Fribrosis CFTR 60 KH v2
Turnaround Time	5 working days
Clinical Significance and Interpretation	Homozygous mutation cells, heterozygous cells, variant cells
Comments	N/A

EHRLICHIA CHAFFEENSIS

Synonyms	E. Chaffeenis, Ehrlichia, EHR
Patient Requirements	N/A
Collection Requirements	Collect in red top or SST. If collected in red top, separate serum into a plastic screw-cap serum tube.
Specimen or Source	Serum only
Volume	1 mL of serum
Specimen Label	Patient's name, date of birth, collection date, and time of collection.
Lab Form/Requisition Requirements	Use MISC. form (HL-06 and include date of onset). See DOS-10.
Container	Collect in SST and centrifuge.
Storage Conditions	Store in plastic tube at 35-46°F for up to 30 days. After 30 days, store at less than -4°F.
Shipping	Ship cold (35-46°F) with cold packs or with dry ice if frozen.
Requirements	Ship by ADH courier, certified overnight mail, submitter courier, or Federal Express in a diagnostic 6.2 container. Include a prepaid return address label and container will be returned.
Specimen Processing	Separate specimens off the clot before sending to Public Health Laboratory.
Causes for Rejection	Too old, not shipped at correct temperature, and hemolyzed.
Normal Values	Titer < 32
Methods	Sent to CDC.
Turnaround Time	Sent to CDC (4-6 weeks).
Clinical Significance	Titer < 32. No significant antibodies were observed.
and Interpretation	2nd specimen requested Titer > 64.
	Titer indicates exposure at some undetermined time.
Comments	Ehrlichia, Rocky Mountain Spotted Fever, and F. tularensis are all performed on the specimen as part of the tickborne disease panel.

FRANCISELLA TULARENSIS SEROLOGY

Synonyms	F. tularensis, part of tickborne disease panel.
Patient Requirements	N/A
Collection Requirements	Collect in red top or SST.
Specimen or Source	Serum only.
Volume	1 mL of serum.
Specimen Label	Collection date, patient's name, and date of birth.
Lab Form/Requisition Requirements	Complete MISC form (HL-06) on DOS-10.
Container	Collect in red top or SST. Centrifuge. If collected in red top, separate serum into a plastic screw-cap serum tube.
Storage Conditions	Refrigerate (35-46°F) serum in plastic tube for the first 72 hours. After 72 hours, store at <-4°F.
Shipping Requirements	Ship cold (35-46°F) with cold packs, or dry ice if frozen.
	Ship by ADH courier, certified overnight mail, submitter courier, or Federal Express in a diagnostic 6.2 container. Include a prepaid return address label and container will be returned.
Specimen Processing	Separate specimens off the clot before sending to Public Health Laboratory. Include a completed Miscellaneous Examination Form. Include date of onset.
Causes for Rejection	Too old, not shipped at correct temperature, hemolyzed.
Normal Values	Negative
Methods	Febrile agglutination (CDC send out)
Turnaround Time	4-6 weeks.
Clinical Significance and Interpretation	Presence of antibodies indicates prior exposure to <i>F. tularensis</i> . Confirmatory tube test will be performed. Titer of > 1:160 indicates exposure at some undetermined time.
Comments	Ehrlichia, Rocky Mountain Spotted Fever, and F. tularensis are all performed on the specimen as part of the tickborne disease panel.

FUNGUS (MYCOLOGY), CLINICAL SPECIMEN

	TOTOGO (MITOGEOGY), GENTIOAE OF EGIMEN
Synonyms	Yeast ID, Mold ID
Patient Requirements	N/A
Collection Requirements	Collect a series of three single, early morning specimens on successive days. Transport to Laboratory as quickly as possible. Private submitters must submit completed test requisition. See DOS-12.
Specimen or Source	Lung secretions, extrapulmonary
Volume	5-10 mL each
Specimen Label	Label with at least 2 unique identifiers - patient's name and date of birth.
Lab Form/Requisition Requirements	Complete TB/Mycology Test Request Form. See DOS-12.
Container	Sterile, one-use plastic disposable container. Label specimen with the patient's full name and hospital number (where applicable).
Storage Conditions	Refrigerate specimen (35-46°F) until tested.
Shipping Requirements	Ship cold (35-46°F) with cold packs.
	Ship by ADH courier, certified overnight mail, submitter courier, or Federal Express in a diagnostic 6.2 container. Include a prepaid return address label and container will be returned.
Specimen Processing	N/A
Causes for Rejection	Leaked in transit, no name on tube, and specimen received more than seven days from collection date.
Normal Values	No fungi seen
Methods	CFW smear, culture, biochemical, and MALDI-TOF.
	Specimens are inoculated onto culture plates, and identifications are made by morphology, biochemicals, LPcB, and MALDI-TOF.
Turnaround Time	4-8 weeks
Clinical Significance and Interpretation	The presence of hyphae or cells in a smear may be evidence of a disease. Culture will confirm an identification of a specific fungus. Molds that demonstrate growth, but no spores after 6 weeks, are reported as saprophytic molds. Molds that cannot be speciated are reported with genus only. Clinical correlation required.
Comments	N/A

FUNGUS (MYCOLOGY), REFERRED SPECIMEN

Synonyms	Mycology ID, Mycology Reference
Patient Requirements	N/A
ratient Requirements	IN/A
Collection Requirements	Solid media appropriate for culture.
Specimen or Source	Isolates from culture
Volume	Viable isolate
Specimen Label	Patient's name and barcode or patient's name and date of birth during downtime.
Lab Form/Test Requisition Requirements	Complete test request in Common Customer or in downtime use Clinical Specimen Submission Downtime Form (HL-360).
Container	Solid media - If not from a Local Health Unit, label specimen with the patient's full name, hospital number (where applicable), and date of birth.
Storage Conditions	Transport to Laboratory as soon as possible. Incubate at room temperature until tested.
Shipping	Room temperature (62-77°F). Indicate on outside of the package "Mycology" or "Fungal".
Requirements	Ship by ADH courier, certified overnight mail, submitter courier, or Federal Express in a diagnostic 6.2 container. Include a prepaid return address label and container will be returned.
Specimen Processing	Specimens may be tested as soon as growth is visible. Growth can be removed with a 1 µl disposable plastic loop or sterile cotton- tipped applicator.
Causes for Rejection	No growth seen on media; subcultures inoculated by placing a piece of Agar on media. See 'Rejection Information' for other causes for rejection on DOS-7.
Normal Values	N/A
Methods	MALDI-TOF, microscopy/morphology
Turnaround Time	6-8 weeks
Clinical Significance and Interpretation	Suspected Blastomyces dermatitidis, Histoplasma capsulation, and Coccidioides species will need to be sent to CDC for identification.

GONORRHEA/CHLAMYDIA SCREENING

Synonyms	GC/CT screen
Patient Requirements	Must meet HIV/STD program requirements.
Collection Requirements	Use powderless gloves when handling collection container.
Specimen or Source	Vaginal swab specimen from female.
	Urine specimens from male.
	Urine specimens from female (collected only if the APTIMA multitest Swab Collection Kit is not available).
	Pharyngeal specimens (using Aptima multitest swab collection kit—same collection kit used for vaginal specimens).
	Rectal specimens (using Aptima multitest swab collection kit—same collection kit used for vaginal specimens).
Volume	Fill urine containers between fill lines on container.
Specimen Label	Label with at least 2 unique identifiers- patient's name and date of birth.
Lab Form/Requisition Requirements	Complete test request (see DOS-10) or contact the Public Health Lab for a request form.
Container	Label Aptima vaginal swab or urine collection container with the patient's full name and barcode.
Storage Conditions	Urine/swab stored at room temperature. Urine stored at room temperature up to 30 days. Vaginal swab stored at room temperature up to 60 days.
Shipping	Ship at room temperature. See DOS-7.
Requirements	Ship by ADH courier, certified overnight mail, submitter courier, or Federal Express in a diagnostic 6.2 container. Include a prepaid return address label and container will be returned.
Specimen Processing	N/A
Causes for Rejection	Any specimen collection site other than indicated for specimen or source, name not on specimen or request form, wrong collection device, expired collection kit, overfilled or under filled urine containers, shaft of swab not broken at score (too long for testing) and no swab in container.
Normal Values	Negative
Methods	Aptima Combo 2 Assay on the Panther System
Turnaround Time	7 business days
Clinical Significance and Interpretation	Indicates presence of Chlamydia trachomatis or Neisseria gonorrhea. Diagnosis should not be based on results of single laboratory tests. If the laboratory test is presumed negative and clinical symptoms indicate infection, collect specimens for further testing.

Comments

Results for gonorrhea/chlamydia testing are reported as follows:

Positive results for gonorrhea are reported as "Pos for N. gonorrhea rRNA."

Positive results for chlamydia are reported as "Pos for C. trachomatis rRNA."

Negative results for gonorrhea are reported as "Presumed negative for N. gonorrhea rRNA."

Negative results for chlamydia are reported as "Presumed negative for C. trachomatis rRNA."

Note: Clinical diagnosis and therapy should not be based solely on this molecular assay. The result should be considered in conjunction with clinical information and/or additional tests.

Indeterminate results are reported when two "equivocal" results have been obtained.

Invalid results are reported when two or three invalid results have been obtained.

In either case, a valid result was not obtained, and the specimen must be recollected.

GROUP B STREPTOCOCCUS (GBS) FOR PRENATAL SCREENING

Synonyms	Group B Streptococcus
Patient Requirements	Collect on all prenatal women at 36-37 weeks gestation unless patient has had GBS bacteriuria this pregnancy or a previous infant with invasive GBS disease. Document if patient is allergic to penicillin.
Collection Requirements	Must be a vaginal/ rectal collection process outlined in the Perinatal Health Section of the Women's Health Volume. Refrigerate immediately.
Specimen or Source	Vaginal/Rectal
Volume	N/A
Specimen Label	Date and time of collection, patient's name, and barcode or in downtime - date and time of collection, patient's name, and date of birth.
Lab Form/Requisition Requirements	Complete test request in Common Customer or in downtime use Clinical Specimen Submission Downtime Form (HL-360).
Container	Culture transport swab (kits supplied by ADH). No charcoal or gel.
Storage Conditions	Refrigerate (35-46°F) after collection. Must be received and set up within 4 days of collection.
Shipping	Ship cold (35-46°F) with cold packs.
Requirements	Ship by ADH courier, certified overnight mail, submitter courier, or Federal Express in a diagnostic 6.2 container. Include a prepaid return address label and container will be returned.
Specimen Processing	Vaginal/rectal swab with supplied kit. Refrigerate immediately. Complete request in common customer.
Causes for Rejection	Specimens not collected from approved site, specimens not in approved collection kits, specimens not received within 4 days of collection, specimen not refrigerated or shipped cold, <u>and</u> kit expired. See 'Rejection Information' for other causes for rejection (DOS-7).
Normal Values	Negative
Methods	Standard CDC reference methodology
Turnaround Time	Positives within 24-72 hours. Negatives available minimum 48 hours; positives with penicillin allergy minimum 72 hours.
Clinical Significance and Interpretation	Possible cause of disease process
Comments	Specimens collected Monday and Tuesday must be received by 4:00pm on Wednesday. Samples collected on Thursday and Friday (must be collected on those days) are held for processing on Monday, providing the 4-day limit is not exceeded. DO NOT COLLECT ON WEDNESDAYS. Exceptions are holidays.

HEMOGLOBIN A1c

Synonyms	HbA1c, glycohemoglobin, glycated hemoglobin
Patient Requirements	None
Collection Requirements	EDTA (purple-top tube). See DOS-7 and DOS-8.
Specimen or Source	Whole blood, collected by venipuncture
Volume	3 mL, minimum
Specimen Label	Patient's name and barcode or patient's name and date of birth during downtime.
Lab Form/Requisition Requirements	Complete test request in Common Customer or in downtime use Clinical Specimen Submission Downtime Form (HL-360). Indicate the date and time of collection on the test requisition.
Container	Collect in EDTA, mix thoroughly.
Storage Conditions	Refrigerate at 35-46°F up to 7 days.
Shipping	Ship cold (35-46°F) with cold packs.
Requirements	Ship by ADH courier, certified overnight mail, submitter courier, or Federal Express in a diagnostic 6.2 container. Include a prepaid return address label and container will be returned.
Specimen Processing	Invert tube 5 times to ensure mixing of EDTA and blood.
Causes for Rejection	Old, not shipped on cold packs or warm when received, samples exceed 7 days, not collected in the appropriate container, collection container not within expiration date, and collection container not marked with patient identifiers.
	See 'Rejection Information' for other causes for rejection (DOS-7).
Normal Values	HbA1c <5.7%
Method	High performance liquid chromatography (HPLC)
Turnaround Time	8 business days
Clinical Significance and Interpretation	Results 5.7% and greater may be indicative of pre- diabetes or diabetes. We recommend the patient to follow up with their primary care physician for further evaluation.
	<5.7% = Normal
	5.7% - 6.4% = Prediabetes
	≥6.5% = Diabetes
Comments	The presence of a hemoglobin variant may invalidate the HbA1c result.

HEMOGLOBINOPATHIES

Synonyms	Sickle cell disease, sickle cell trait, hemoglobin disorders
Patient Requirements	Adult or child older than 6 months, not recently transfused
Collection Requirements	Collect on filter paper card.
Specimen or Source	Fingerstick
Volume	A large drop sufficient to soak through to completely fill a preprinted circle on filter paper. Fill all spots.
Specimen Label	Label paper card with date and time of collection, patient's name, and date of birth.
Lab Form/Requisition Requirements	Complete test requisition. See DOS-10.
Container	Filter paper card, provided by Laboratory.
Storage Conditions	Store refrigerated (35-46°F) if delivery to Laboratory is delayed.
Shipping Requirements	Room Temperature (62-77°F).
Requirements	Place in paper envelope labeled "adult sickle cell specimen" and send to Laboratory. Do not place in plastic bag or on or near ice packs.
	Specimen must be received in Laboratory within 14 days after collection.
Specimen Processing	Allow blood specimen to dry in horizontal position for at least 3 hours at room temperature (18-25°C), not in direct light. Do not heat or stack the specimens during the drying process.
Causes for Rejection	Insufficient quantity of blood in circles, specimen layered from repeat blood applications, specimen leached out or contaminated, specimen more than 14 days old, and no name on specimen.
Normal Values	Hemoglobin A
Reference Normal	Hemoglobin A
Methods	Isoelectric focusing (IEF)
Turnaround Time	7 business days
Clinical Significance and Interpretation	N/A
Comments	Blood transfusion prior to specimen collection may make interpretation inconsistent.

HEPATITIS A IgM ANTIBODY (HAV IgM) TS

Synonyms	Hepatitis A
Patient Requirements	N/A
Collection Requirements	SST. Ensure tube is filled. See DOS-7 and DOS-8.
Specimen or Source	Serum, NOT cadaver or heat inactivated.
Volume	Fill tube
Specimen Label	Patient's name and date of birth.
Lab Form/Requisition Requirements	Private submitters should send MISC. form (HL-06) with specimen. See DOS-10.
Container	EDTA collection tube (purple top tube)
Storage Conditions	35-46°F up to 7 days after collection
Shipping Requirements	Ship cold (35-46°F) with cold packs.
	Specimens must have an orange tag on the shipping container.
	Ship by ADH courier, certified overnight mail, submitter courier, or Federal Express in a diagnostic 6.2 container. Include a prepaid return address label and container will be returned.
Specimen Processing	Mix properly
Causes for Rejection	Old, not shipped on cold packs, warm when received, and quantity insufficient.
Normal Values	Negative, not previously infected with HAV
Method	Enzyme Immunoassay
Turnaround Time	5 business days
Clinical Significance and Interpretation	Acute HAV
Comments	Presence of HAV IgM antibody indicates acute HAV.

HEPATITIS B IgM CORE ANTIBODY (HBcIgM) TS

Synonyms	Hepatitis B
Patient Requirements	N/A
Collection Requirements	SST. Ensure tube is filled. See DOS-7 and DOS-8.
Specimen or Source	Serum, NOT cadaver or heat inactivated.
Volume	3 mL serum separated from clot within 2 hours after collection
Specimen Label	Patient's name and date of birth.
Lab Form/Requisition Requirements	Private submitters should send MISC. form (HL-06) with specimen. See DOS-10.
Container	Collect in SST. Centrifuge. Separate serum from cells within 2 hours after collection.
Storage Conditions	Refrigerate 35-46°F up to 7 days after collection
Shipping	Ship cold (35-46°F) with cold packs.
Requirements	Ship by ADH courier, certified overnight mail, submitter courier, or Federal Express in a diagnostic 6.2 container. Include a prepaid return address label and container will be returned.
Specimen Processing	Separate serum from clot before shipping.
Causes for Rejection	Old, hemolyzed, lipemic, not shipped on cold packs or warm when received, shipped on cells, or containing particulate matter, quantity insufficient, and incomplete centrifugation.
Normal Values	Negative, not previously infected with HBV
Method	Enzyme Immunoassay
Turnaround Time	4 business days
Clinical Significance and Interpretation	Acute HBV
Comments	Presence of HBsAg and Total HBcAb indicates the need to investigate for chronic persistent or aggressive HBV.
	Presence of HBclgM antibody indicates an acute case of HBV.
	Presence of HBsAb with or without presence of Total HBcAb indicates immunity to HBV.

HEPATITIS B SURFACE ANTIBODY (HBsAb) TS

Synonyms	Hepatitis B
Patient Requirements	N/A
Collection Requirements	SST. Ensure tube is filled. See DOS-7 and DOS-8.
Specimen or Source	Serum, NOT cadaver or heat inactivated
Volume	3 mL serum separated from clot within 2 hours after collection
Specimen Label	Patient's name and date of birth.
Lab Form/Requisition Requirements	Private submitters should send MISC. form (HL-06) with specimen. See DOS-10.
Container	Collect in SST. Centrifuge. Separate serum from cells within 2 hours after collection.
Storage Conditions	Refrigerate (35-46°F) up to 7 days after collection.
Shipping	Ship cold (35-46°F) with cold packs.
Requirements	Ship by ADH courier, certified overnight mail, submitter courier, or Federal Express in a diagnostic 6.2 container. Include a prepaid return address label and container will be returned.
Specimen Processing	Separate serum from clot before shipping.
Causes for Rejection	Old, hemolyzed, lipemic, not shipped on cold packs or warm when received, shipped on cells, or containing particulate matter, quantity insufficient, and incomplete centrifugation.
Normal Values	Negative, not previously infected with HBV
Method	Enzyme Immunoassay
Turnaround Time	7 days
Clinical Significance and Interpretation	Immunity to HBV or previous exposure to HBV.
Comments	Presence of HBsAg and Total HBcAb indicates the need to investigate for chronic persistent or aggressive HBV.
	Presence of HBclgM antibody indicates an acute case of HBV.
	Presence of HBsAb with or without presence of Total HBcAb indicates immunity to HBV.

HEPATITIS B SURFACE ANTIGEN (HBsAg) TS

Synonyms	Hepatitis B
Patient Requirements	N/A
Collection Requirements	SST. Ensure tube is filled. See DOS-7 and DOS-8.
Specimen or Source	Serum, NOT cadaver or heat inactivated
Volume	3 mL serum separated from clot within 2 hours after collection
Specimen Label	Patient's name and date of birth.
Lab Form/Requisition Requirements	Private submitters should send MISC. form (HL-06) with specimen. See DOS-10.
Container	Collect in SST. Centrifuge. Separate serum from cells within 2 hours after collection.
Storage Conditions	Refrigerate (35-46°F) up to 7 days after collection.
Shipping Requirements	Ship cold (35-46°F) with cold packs. Ship by ADH courier, certified overnight mail, submitter courier, or Federal Express in a diagnostic 6.2 container. Include a prepaid return address label and container will be returned.
Specimen Processing	Separate serum from clot before shipping.
Causes for Rejection	Old, hemolyzed, lipemic, not shipped on cold packs or warm when received, shipped on cells, or containing particulate matter, quantity insufficient, and incomplete centrifugation.
Normal Values	Negative, not previously infected with HBV
Method	Enzyme Immunoassay
Turnaround Time	7 business days
Clinical Significance and Interpretation	Acute or chronic infection of HBV
Comments	Presence of HBsAg and Total HBcAb indicates the need to investigate for chronic persistent or aggressive HBV.
	Presence of HBclgM antibody indicates an acute case of HBV.
	Presence of HBsAb with or without presence of Total HBcAb indicates immunity to HBV.

HEPATITIS B TOTAL CORE ANTIBODY (TOTAL HBcAb)

Synonyms	Hepatitis B
Patient Requirements	N/A
Collection Requirements	SST. Ensure tube is filled. See DOS-7 and DOS-8.
Specimen or Source	Serum, NOT cadaver or heat inactivated
Volume	3 mL serum separated from clot within 2 hours after collection
Specimen Label	Patient's name and date of birth.
Lab Form/Requisition Requirements	Private submitters should send MISC. form (HL-06) with specimen. See DOS-10.
Container	Collect in SST. Centrifuge. Separate serum from cells within 2 hours after collection.
Storage Conditions	Refrigerate (35-46°F) up to 7 days after collection.
Shipping Requirements	Ship cold (35-46°F) with cold packs. Ship by ADH courier, certified overnight mail, submitter courier, or Federal Express in a diagnostic 6.2 container. Include a prepaid return address label and container will be returned.
Specimen Processing	Separate serum from clot before shipping.
Causes for Rejection	Old, hemolyzed, lipemic, not shipped on cold packs or warm when received, shipped on cells, or containing particulate matter, quantity insufficient, and incomplete centrifugation.
Normal Values	Negative, not previously infected with HBV
Method	Enzyme Immunoassay
Turnaround Time	5 business days
Clinical Significance and Interpretation	Immunity or chronic HBV
Comments	Presence of HBsAg and Total HBcAb indicates the need to investigate for chronic persistent or aggressive HBV.
	Presence of HBclgM antibody indicates an acute case of HBV.
	Presence of HBsAb with or without presence of Total HBcAb indicates immunity to HBV.

HEPATITIS C (HCV) SCREENING & CONFIRMATION TEST TS

Synonyms	Hepatitis C, HCV
Patient Requirements	All adults aged 18-79, one-time testing for HCV. Persons with continued risk factors may be offered subsequent testing.
Collection Requirements	SST. Ensure tube is filled. See DOS-7 and DOS-8.
Specimen or Source	Serum
Volume	3 mL
Specimen Label	Patient's name and date of birth.
Lab Form/Requisition Requirements	Private submitters should send MISC. form (HL-06) with specimen. See DOS-10.
Container	Collect in SST. Centrifuge. Separate serum or plasma from cells within 2 hours after collection.
Storage Conditions	Refrigerate (35-46°F) up to 5 days.
Shipping Requirements	Ship cold (35-46°F) with cold packs the same day of collection or the following day.
	Ship by ADH courier, certified overnight mail, submitter courier, or Federal Express in a diagnostic 6.2 container. Include a prepaid return address label and container will be returned.
Specimen Processing	Separate serum from clot before shipping.
Causes for Rejection	Old, hemolyzed, lipemic, not shipped on cold packs or warm when received, shipped on cells, or containing particulate matter, quantity insufficient, incomplete centrifugation, and samples more than 5 days (for confirmatory testing).
Normal Values	Nonreactive
Method	Enzyme Immunoassay and HCV Quantitative RNA Assay
Turnaround Time	7 business days for enzyme immunoassay and additional 7 business days for HCV Quantitative RNA confirmation test.
Clinical Significance	Reactive EIA results indicate recent or past infection of Hepatitis C.
and Interpretation	<10 Detected HCV RNA detected but not quantified. HCV RNA concentration is below the Lower Limit of Quantification of the assay. Follow- testing is recommended as per national HCV guidelines for viral load assessment, and results must be interpreted within context of all relevant clinical and laboratory findings for diagnosis of HCV.
	10 to 25 HCV RNA detected and quantified. HCV RNA concentration is within linear range of the assay ≥ 10 IU/mL and < 25 IU/mL. Provide guidance for treatment and care based on current national HCV treatment guidelines for diagnosis of HCV and viral load assessment. 25 to 100,000,000 HCV RNA is detected and quantified. HCV RNA concentration is within the linear range of 25 to 100,000,000 IU/mL. Current HCV Infection. Provide guidance for treatment and care based on current national HCV treatment guidelines for diagnosis and viral load assessment

DOS-47

	of HCV. >100,000,000 HCV RNA is detected above the Upper Limit of Quantification. Current HCV Infection. For HCV Diagnosis and Viral Load Assessment, provide guidance for treatment and care based on current national HCV treatment guidelines.
Comments	Maternal antibodies may persist in children less than 18 months of age. It is essential that the serum is stored properly and delivered in a timely manner for the integrity of the HCV RNA in the specimens to be tested.

HUMAN IMMUNODEFICIENCY VIRUS (HIV)

Synonyms	HIV 1-2 + O antibody, p24 antigen for HIV-1
Patient Requirements	NA
Collection Requirements	SST. Ensure tube is filled. See DOS-7 and DOS-8. Large SST tubes are not accepted for testing and will be rejected.
Specimen or Source	Serum
Volume	2 mL
Specimen Label	Patient's name and date of birth.
Lab Form/Requisition Requirements	Private submitters should send MISC. form (HL-06) with specimen. See DOS-10.
Container	Collect in SST. Centrifuge.
Storage Conditions	Refrigerate (35-46°F) for up to 7 days after collection.
Shipping Requirements	Ship cold (35-46°F) with cold packs. Ship by ADH courier, certified overnight mail, submitter courier, or Federal Express in a diagnostic 6.2 container. Include a prepaid return address label and container will be returned.
Specimen Processing	Separate serum from cells.
Causes for Rejection	Specimen too old, quantity insufficient, and incomplete centrifugation.
Normal Values	Nonreactive
Methods	Combo Antigen Antibody ELISA for screening, Geenius HIV-1/2 Supplemental Assay for confirmation.
Turnaround Time	5 business days if nonreactive, 7 business days if ELISA is reactive.
Clinical Significance and Interpretation	The presence of HIV antibodies or antigen indicates prior exposure to HIV. Results must be confirmed with the Geenius HIV-1 / 2 Supplemental Assay.
Comments	If ELISA is reactive, Geenius HIV-1 / 2 Supplemental Assay will be performed. Specimens tested for confirmation by the Geenius assay with HIV negative or HIV-1 indeterminate results can be forwarded to another facility for HIV-1 nucleic acid testing (NAT) testing.

ISOLATE IDENTIFICATION, ANAEROBIC AND AEROBIC/CONFIRMATION

Synonyms	Organism identification for unknown anaerobe or aerobic bacteria.
Patient Requirements	N/A
Collection Requirements	Pure isolate. Actively growing culture is required for this test.
Specimen or Source	Any source, actively growing pure isolate.
Volume	N/A
Specimen Label	Each specimen should be labelled with patient name, date of birth, and time of collection.
Lab Form/Requisition Requirements	Each specimen must be accompanied by a test request form from the Lab Web Portal (AR LWP) or Clinical Microbiology Form.
Container	Media appropriate for organism survival. Slants preferred.
Storage Conditions	Specimens should be stored and shipped at room temperature (62-77°F) in atmosphere suitable for survival of isolate.
Shipping Requirements	Specimens should be stored and shipped at room temperature (62-77°F) in atmosphere suitable for survival of isolate. Ship as infectious substance by ADH ground courier, certified overnight mail, submitter courier, or Federal Express in an infectious 6.2 container. Include a prepaid return address label and container will be returned.
Specimen Processing	Please indicate source of organism, results of any test performed, suspected infection, and any other pertinent information.
Causes for Rejection	Leaking/broken container or package; not submitted with the patient's name and/or other patient's identifier; not submitted with correct barcode and when scanned, name appearing in LIMS does not match name on the container; not shipped within acceptable temperature ranges; not shipped in appropriate transport containers; not received within acceptable timeframe for testing; lab accidents, and tests requested not available.
Normal Values	N/A
Methods	Standard ASM reference methodology
Turnaround Time	Turnaround time is isolate dependent. It may require referral to CDC.
Clinical Significance and Interpretation	Varies by isolate identified.
Comments	N/A

MEASLES VIRUS REAL-TIME PCR ASSAY

Synonyms	Rubeola, MeV
Patient Requirements	Detection of measles RNA by RT-PCR is most successful when specimens are collected during the first four days of rash onset.
Collection Requirements	Specimens should be collected on swabs with a synthetic tip, such as nylon, polyester, or Dacron. Do not collect with cotton, calcium alginate, or wooden swabs, as these may contain PCR-inhibiting substances.
Specimen or Source	Nasopharyngeal (NP) swab (preferred) OR throat swab (acceptable).
Volume	Standard viral transport media (VTM) tube containing 2-3 mL VTM for NP or throat specimens.
Specimen Label	If from an LHU, patient's name and barcode, or in downtime, patient's name, and DOB. If not from an LHU, patient's name, DOB and hospital or clinical ID (where applicable).
Lab Form/Requisition Requirements	MISC. form (HL-06). See DOS-10.
Container	Standard viral transport media (VTM) tube containing 2-3 mL VTM for oral specimens.
Storage Conditions	Store refrigerated (2-8°C) before shipment to ADH.
Shipping Requirements	Ship cold (2-8°C) with cold packs, Ship by ADH courier, certified overnight mail, submitter courier, or Federal Express in a diagnostic 6.2 container. Include a prepaid return address label and container will be returned. The PHL Molecular laboratory must receive specimens within 72 hours of collection date and time.
Specimen Processing	Notify Molecular laboratory immediately when specimens have arrived.
Causes for Rejection	Specimens other than throat or NP swab, specimen not received refrigerated within 24 hours after collection; specimens received without submission forms; specimens >72 hours from time of collection; specimens received frozen.
	Specimens collected with cotton or calcium alginate swabs; Swab specimens not in VTM; No swab in VTM Swab in expired VTM; Incomplete specimen label; Multiple swabs in same tube of VTM.
Normal Values	Negative
Methods	Real Time-PCR
Turnaround Time	7 business days from date received.
Clinical Significance and Interpretation	Any amplification above the threshold Ct value is considered positive for measles RNA.
Comments	Submitters should contact Epidemiology prior to submitting measles specimens to report a case as suspect and to coordinate receipt of the specimen. Main Epidemiology number: 501-537-8969 After hours: 1-800-554-5738

MUMPS VIRUS REAL-TIME PCR ASSAY

Synonyms	MuV
Patient Requirements	Detection of mumps RNA by RT-PCR is most successful when specimens are collected during the first 3 days of rash onset.
Collection Requirements	Specimens should be collected on swabs with a synthetic tip, such as nylon, polyester, or Dacron. Do not collect with cotton, calcium alginate, or wooden swabs, as these may contain PCR-inhibiting substances.
Specimen or Source	Buccal swab only
Volume	Place swab in 2-3 mL viral transport media (VTM) after specimen collection.
Specimen Label	If from an LHU, patient's name and barcode, or in downtime, patient's name, and DOB. If not from an LHU, patient's name, DOB and hospital or clinical ID (where applicable).
Lab Form/Requisition Requirements	MISC. Form (HL-06). See DOS-10.
Container	Standard viral transport media (VTM) tube containing 2-3 mL VTM for oral specimens.
Storage Conditions	Store refrigerated (2-8°C) if <24 hours before shipment to PHL. Store frozen (≤70°C) if >24 hours before shipment to PHL.
Shipping	Ship cold (35-46°F) with cold packs.
Requirements	Ship by ADH courier, submitter courier, certified overnight mail, Federal express, or UPS in a diagnostic 6.2 container. Specimens may also be shipped on dry ice.
	The PHL Molecular laboratory must receive specimens within 72 hours of collection date and time.
Specimen Processing	Notify Molecular laboratory immediately when specimens have arrived.
Causes for Rejection	Specimens not refrigerated (2-8°C) or frozen (≤70°C) after collection, specimens collected with cotton, calcium alginate, or wooden swabs, specimens with no swab in the VTM, swabs not submitted in VTM, specimens collected in expired VTM, specimen leakage, inappropriate specimen type, multiple specimens containers in one shipment that are not individually bagged to prevent specimen contamination, insufficient specimen volume, incomplete specimen labeling, patient identifiers on container and submission form do not match.
	See 'Rejection Information' for other causes for rejection on DOS-7.
Normal Values	Negative
Methods	Real Time-PCR
Turnaround Time	7 business days from date received.
Clinical Significance and Interpretation	Any amplification above the threshold Ct value is considered positive for mumps RNA.

DOS-52

Comments	Submitters should contact Epidemiology prior to submitting mumps specimens to report a case as suspect and to coordinate receipt of the specimen. Main Epidemiology number: 501-537-8969 After hours: 1-800-554-5738	
----------	--	--

MYCOBACTERIA TUBERCULOSIS RAPID SUSCEPTIBILITY

Synonyms	Sensitivity Test for TB, TB DST, TB AST, DSST
Patient Requirements	N/A
Collection Requirements	A completed Mycobacteriology/Mycology requisition must accompany all specimens. (HL-341). See DOS-12.
Specimen or Source	Tuberculosis isolate on Slant or Broth.
Volume	Viable Isolate
Specimen Label	Patient's name and date of birth.
Lab Form/Requisition Requirements	A completed Mycobacteriology/Mycology requisition must accompany all specimens. (HL-341). See DOS-12.
Container	Slant or broth
Storage Conditions	Incubate at room temperature until tested.
Shipping Requirements	Room temperature (62-77°F). Ship by ADH courier, certified overnight mail, submitter courier, or Federal Express in a diagnostic 6.2 container. Include a prepaid return address label and container will be returned.
Specimen Processing	N/A
Causes for Rejection	Slant dehydrated, contaminated, and/or nonviable.
Normal Values	Susceptible
Methods	MGIT 960 SIRE/PZA Method
Turnaround Time	Up to 21 days after M. Tb identification.
Clinical Significance and Interpretation	Susceptibility tests are performed on first time positive TB isolates. Susceptibility testing allows identification of multi-drug resistant TB isolates and assists the physician in treatment of the patient.
Comments	Drugs tested – Streptomycin, Isoniazid, Rifampin, Ethambutol, Pyrazinamide

NEWBORN SCREENING PANEL

Congenital Hypothyroidism by TSH, Hemoglobinopathies (Sickle Cell, Sickle C & Sickle B-thal), Galactosemia by GALT, Congenital Adrenal Hyperplasia, Cystic Fibrosis, Biotinidase Deficiency, Amino Acid Disorders, Fatty Acid Oxidation Disorders, Organic Acid Disorders, Severe Combined Immunodeficiency, Spinal Muscular Atrophy, X-linked Adrenoleukeoystrophy

Synonyms	TSH, Sickle Cell, GALT, CAH, CF/IRT, BIO, AA, FA, OA, SCID, SMA,
	X-ALD, Pompe, MPS-1
Patient Requirements	Infant less than 6 months of age
Collection Requirements	Collect at least 24 hours after birth. See DOS-6 for collection information.
Specimen or Source	Heel stick
Volume	A large drop of blood sufficient to soak through to completely fill a preprinted circle on the filter paper. Fill all circles. See DOS-6 for more information.
Specimen Label (no label)	All demographic information must be completed.
Lab Form/Requisition Requirements	No test request on form HL-11.
Container	Filter paper card, HL-11, provided by Laboratory Office. Collection form must be filled out completely.
Storage Conditions	Specimens must be packaged and shipped as soon as possible. If shipping is delayed, specimens must be kept refrigerated until shipping.
Shipping Requirements	Room Temperature. Send specimen to Laboratory within 24 hours after collection via LHU courier or overnight delivery service. Place in paper envelope and send to Laboratory. Do not place in plastic bag or send on or near ice packs. Specimen should be received in lab within 2 days after collection.
Specimen Processing	Allow blood specimen to dry in horizontal position for at least 3 hours at room temperature (64-77°F), not in direct light. Do not heat or stack cards during the drying process.
Causes for Rejection	(NBS rejection codes may also be forum on the back of form HL-11) Insufficient number of circles filled, specimen distribution in circles not uniform, insufficient quantity of blood in circles, no blood on filter paper, specimen layered from repeat applications to circle, circles overfilled with blood, specimen appears leached out or contaminated, form incompletely filled out, filter paper expired, and specimen more than 14 days old. See 'Rejection Information' for other causes for rejection on DOS-7.
Normal Values	Available from the Newborn Screening Laboratory.
Methods	Amino Acids, Fatty Acids, Organic Acids, Peroxisomal Disorders, and Lysosomal Storage Disorders by MS/MS assay; Biotinidase, Congenital Adrenal Hyperplasia, Congenital Hypothyroidism, Cystic Fibrosis by GSP (Immunofluorescent assay), Galactosemia by GSP (Enzymatic assay), Hemoglobinopathies by HPLC assay, SCID_SMA by Real-time PCR assay

Turnaround Time	All specimens received by the Laboratory are initially examined within 5 working days of receipt. Abnormal results are reported to the submitter within two working days of determination.
Clinical Significance and Interpretation	Early identification allows for more rapid follow-up of potential disorders. Early intervention, either with medication or a change in diet, can greatly affect the health of the baby.
Comments	If specimen is collected prior to 24 hours of age, a repeat specimen is requested.
	Congenital Hypothyroidism – TSH is the primary screen in this lab for the detection of congenital hypothyroidism. Those specimens with elevated TSH levels are supplemented with T4 test. Please provide dates and times of birth and collection to get an accurate interpretation of the TSH result.
	Congenital Adrenal Hyperplasia – Please provide weight at time of birth and collection to get an accurate interpretation of the CAH result. CAH is the primary screen for this lab for the detection of congenital adrenal hyperplasia. Those specimens with elevated CAH levels are supplemented with 2 nd tier CAH test.
	Cystic Fibrosis – IRT is the primary screen for this lab for the detection of Cystic fibrosis. Those specimens with borderline and abnormal IRT levels are supplemented with a 2 nd tier CF test that detects possible CF-causing mutations if present.
	Hemoglobinopathies – HLPC is the primary screen for the detection of abnormal hemoglobinopathies. All abnormal specimens are supplemented with IEF (isoelectric focusing).
	SCID - Gestational age of baby at collection is required for correct interpretation of results.
	Refer to Rules Pertaining to Testing of Newborn Infants (effective February 10, 2024) for more information. Visit: Newborn Screening Final Rule.pdf (arkansas.gov)
	** All disorders are printed at the bottom of the NB mailer.

NON-VARIOLA ORTHOPOXVIRUS

Synonyms	Мрох
Patient Requirements	N/A
Collection Requirements	Collect two synthetic swabs for each lesion collection site. The two swabs from the same site are then placed together in one dry conical tube. (No media is required) Place the tube in the same biohazard bag with one form per site. Additional sites must have their own two swabs, tube, bag, and form.
Specimen or Source	Collect 2 swabs for each collection site. Both swabs can be placed in the same biohazard bag with one form for each site.
Volume	N/A
Specimen Label	Patient's full name and date of birth; recommend adding collection site
Lab Form/Requisition Requirements	ADH MISC. form (HL-06). See DOS-10.
Container	Sterile collection tube and swabs. No media required.
Storage Conditions	Store refrigerated (2-8°C) until packaged and shipped.
Shipping Requirements	Ship cold (2-8°C) with cold packs or on dry ice if frozen.
	Ship by ADH courier, certified overnight mail, submitter courier, or Federal Express in a diagnostic 6.2 container. Include a prepaid return address label and container will be returned.
Specimen Processing	N/A
Causes for Rejection	Arrived warm to lab, and collection tube received without 2 unique identifiers (e.g. patient's full name and date of birth).
Normal Values	Negative for Non-variola orthopoxvirus
Methods	RT-PCR
Turnaround Time	7 business days
Clinical Significance and Interpretation	A positive result is most likely due to MPOX infection or possibly a smallpox vaccine adverse event.
Comments	Submitters should contact Epidemiology prior to submitting non- variola orthopoxvirus specimens to report a case as suspect and to coordinate receipt of the specimen.
	Main Epidemiology number: 501-537-8969. After hours: 1-800-554-5738.
	This assay does not differentiate Vaccinia virus or Monkeypox virus from other Orthopoxviruses detected by the assay. This assay does not detect Variola virus.

OVA AND PARASITE, FECAL

Synonyms	O&P for fecal parasites (This does not include of <i>Cryptosporidium</i> , <i>Cyclospora</i> , or <i>Cystoisospora</i> test. These must be ordered separately (acid fast stain).
Patient Requirements	Routine examination for parasites prior to treatment, a minimum of three specimens collected on alternate days is recommended, collect specimens to determine the efficacy of treatment three to four weeks after completion of therapy, and order if patient has diarrhea.
Collection Requirements	Collect fecal specimens before use of barium, bismuth, etc. Collect in MCC Unifix or Total Fix single vial (or comparable transport system containing 10% formalin and PVA vials without Mercury). Add bloody, watery portions of stool to fill line marked on vial, seal and shake vigorously. Stool must be collected and filled to the fill line on the collection vials.
Specimen or Source	Stool
Volume	To fill line on collection vials.
Specimen Label	Each specimen should be labelled with patient name, date of birth, and time of collection.
Lab Form/Requisition Requirements	Each specimen must be accompanied by a test request form from the Lab Web Portal (AR LWP) or Clinical Microbiology Form.
Container	MCC Unifix or Total Fix single vial or dual vial system with 10% formalin and PVA without Mercury should be used for these specimens.
Storage Conditions	Specimens should be stored and shipped at room temperature (62-77°F).
Shipping Requirements	Specimens should be stored and shipped at room temperature (62-77°F). Ship as infectious substance by ADH ground courier, certified overnight mail, submitter courier, or Federal Express in an infectious 6.2 container. Include a prepaid return address label and container will be returned.
Specimen Processing	Must be in an acceptable preservative. DO NOT OVERFILL.
Causes for Rejection	Under or overfilled specimens; dry specimens; leaking container; specimen contaminated with oil, barium, or urine; multiple specimens in a 24-hour period; and expired collection kits.
Normal Values	No parasite seen.
Methods	Concentration technique and Trichrome stain by microscopic examination.
Turnaround Time	14 working days
Clinical Significance and Interpretation	Possible cause of disease process
Comments	Foreign travel or continued symptoms.

PARASITE (ECTOPARASITE) IDENTIFICATION

	· · · · · · · · · · · · · · · · · · ·
Synonyms	Parasite or Ectoparasite identification. Confirmation of parasites like larva, worms, ticks, lice, flea kissing bugs, etc.
Patient Requirements	Exposure or travel history is helpful.
Collection Requirements	Parasite collected and place in sterile container with 70% ethanol or isopropanol.
Specimen or Source	N/A
Volume	N/A
Specimen Label	Each specimen should be labelled with patient name, date of birth, and time of collection.
Lab Form/Requisition Requirements	Each specimen must be accompanied by a test request form from the Lab Web Portal or Clinical Microbiology Form.
Container	Sterile container with 70% ethanol or isopropanol
Storage Conditions	Specimens should be stored and shipped at room temperature (62-77°F).
Shipping Requirements	Specimens should be stored and shipped at room temperature (62-77°F). Ship as infectious substance by ADH ground courier, certified overnight mail, submitter courier, or Federal Express in an infectious 6.2 container. Include a prepaid return address label and container will be returned.
Specimen Processing	Must be in acceptable preservative.
Causes for Rejection	Broken/leaking container; specimen contaminated with oil, barium, or urine.
Normal Values	No parasite detected.
Methods	Microscopy or CDC Referral.
Turnaround Time	14 working days
Clinical Significance and Interpretation	Possible cause of disease process
Comments	N/A

RABIES

Synonyms	Rabies Virus
Patient Requirements	Bite from household pet or wild animal or contact with saliva, brain, or spinal fluid from a pet or wild animal.
Collection Requirements	Collect and chill brain as soon as possible after euthanasia.
Specimen or Source	Animal brain tissue
Volume	N/A
Lab Form/Requisition Requirements	Complete Rabies Examination Form or use QR code to enter information. Use QR code when available. See DOS-14
Container	Provided rabies kits at Local Health Unit or from Specimen Receiving at the Public Health Lab.
Storage Conditions	Refrigerate (35-46°F).
Shipping Requirements	Ship cold (35-46°F) with cold packs using rabies buckets/boxes.
Specimen Processing	Remove the head of all animals, except bats which can be shipped whole.
Causes for Rejection	Damaged or decomposed brain tissue. See 'Rejection Information' for other causes for rejection on DOS-7.
Normal Values	Negative
Methods	Direct Fluorescent Antibody Test
Turnaround Time	72 hours
Clinical Significance and Interpretation	Exposure to a positive rabid animal requires post exposure prophylaxis from a qualified medical professional.

ROCKY MOUNTAIN SPOTTED FEVER

Synonyms	Rocky Mountain, RMSF
Patient Requirements	N/A
Collection Requirements	Collect in red top or serum separator tube SST. If collected in red top, transfer serum into plastic tube.
Specimen or Source	Serum
Volume	1 mL of serum
Specimen Label	Patient's name and date of birth
Lab Form/Requisition Requirements	Complete test request using the Miscellaneous Form (HL-06) and include the date of onset. See DOS-10.
Container	Collect in red top or SST. Centrifuge. If collected in red top, transfer serum into plastic tube.
Storage Conditions	Store in plastic tube at 35-46°F for up to 30 days; After 30 days, store at < -4°F.
Shipping Requirements	Ship cold (35-46°F) with cold packs or ship with dry ice if frozen. Ship by ADH courier, certified overnight mail, submitter courier, or Federal Express in a diagnostic 6.2 container. Include a prepaid return address label and container will be returned.
Specimen Processing	Separate specimens off the clot before sending to the Public Health Laboratory. Transfer serum into plastic tube.
Causes for Rejection	Too old, not shipped at correct temperature, and hemolyzed. See 'Rejection Information' for other causes for rejection on DOS-7.
Normal Values	Titer < 32
Methods	Sent to CDC
Turnaround Time	4-6 weeks
Clinical Significance and Interpretation	Titer < 32. No significant antibodies were observed. 2nd specimen requested.

RUBELLA IgG

Synonyms	German Measles
Patient Requirements	Patient must be older than 6 months of age.
Collection Requirements	SST. Ensure filled. See DOS-7 and DOS-8.
Specimen or Source	Serum
Volume	1 mL of serum
Specimen Label	Specimen must be labeled with 2 patient identifiers such as patient's full name and date of birth
Lab Form/Requisition Requirements	Private submitters should send MISC. form (HL-06) with specimen. See DOS-10.
Container	SST tubes. Centrifuge within 2 hours of collection.
Storage Conditions	Refrigerate (34-46°F) for 2 days. Specimens must be received in testing lab within 48 hours from collection.
Shipping Requirements	Ship cold (35-46°F) with cold packs. Ship by ADH courier, certified overnight mail, submitter courier, or Federal Express in a diagnostic 6.2 container. Include a prepaid return address label and container will be returned.
Specimen Processing	Separate serum from clot before shipping to Public Health Laboratory.
Causes for Rejection	Too old, hemolyzed, not shipped at correct temperature, quantity insufficient, and incomplete centrifugation.
Normal Values	Positive indicates the specimen has Rubella IgG antibodies. Negative indicates the specimen does not have Rubella IgG antibodies. Equivocal results require a second specimen to be collected and tested.
Methods	EIA
Turnaround Time	7 business days
Clinical Significance and Interpretation	Positive result indicates immunity (vaccination or infection).
Comments	Maternal antibodies may be present in specimens from infants younger than 6 months of age and may interfere with accurate testing.

DOS-62

SALMONELLA CULTURE OR CONFIRMATION

Synonyms	Salmonella species stool culture or confirmation.
Patient Requirements	Should be symptomatic with diarrhea.
Collection Requirements	Pure isolate or GN broth preferred. Collect feces/stool in Cary-Blair stool transport media. Stool must be collected and filled to the fill line on the collection vial. Rectal Swab (children only): Collect on a culturette with Cary-Blair transport media. Collect according to instructions on package. Stool specimen must be received in 4 days of collection.
Specimen or Source	Any Source. Isolates, GN broth or feces/stool.
Volume	Actively growing culture or Cary-Blair stool transport media. Fill container with feces until liquid is at line on vial. Mix well. (Follow kit instructions)
Specimen Label	Each specimen should be labelled with patient name, date of birth, and time of collection.
Lab Form/Requisition Requirements	Each specimen must be accompanied by a test request form from the Lab Web Portal (AR LWP) or Clinical Microbiology Form.
Container	Media appropriate for organism survival, Cary-Blair stool or culturette with Cary-Blair transport media.
Storage Conditions	Specimens should be stored and shipped at room temperature (62-77°F).
Shipping Requirements	Specimens should be stored and shipped at room temperature (62-77°F). Stool specimen must be received in 4 days of collection. Ship as infectious substance by ADH ground courier, certified overnight mail, submitter courier, or Federal Express in an infectious 6.2 container. Include a prepaid return address label and container will be returned. NOTE: Specimens must be received into the lab by 4:00pm on Wednesdays. Do not collect specimens on Thursdays or Fridays.
Specimen Processing	Isolates, GN broth or stool collected and filled to the fill line on the collection vial. DO NOT OVERFILL.
Causes for Rejection	Overfilled, leaking/broken containers, multiple specimens (more than 1 in a 24- hour period), dry specimen, and stool or swabs not in Cary-Blair transport media, expired transport medium. Diapers are not acceptable.
Normal Values	Negative for Salmonella
Methods	Standard reference methods for above organism isolation and identification.
Turnaround Time	Results by 7 days, unless referred to CDC.
Clinical Significance and Interpretation	Possible cause of disease process.
Comments	N/A
	I .

SARS-COV-2, INFLUENZA A, INFLUENZA B, AND RSV

Synonyms	4-Plex (SARS-CoV-2/Influenza A/Influenza B/RSV)
Patient Requirements	Patients with symptoms of respiratory infection
Collection Requirements	Collect a nasopharyngeal and place in viral transport media
Specimen or Source	Nasopharyngeal swab
Volume	3mL
Specimen Label	Patient's name and date of birth.
Lab Form/Test Requisition Requirements	Request the test in Common Customer or in Lab Web Portal.
Container	Nasopharyngeal swab in Viral Transport Medium
Storage Conditions	Refrigerate 2º-8ºC for 96 hours
Shipping Requirements	Ship cold (35-46°F) with cold packs. Label package with Molecular sticker (red sticker) or write 'Molecular' on box.
	Ship by ADH courier, certified overnight mail, submitter courier, or Federal Express in a diagnostic 6.2 container. Include a prepaid return address label and container will be returned.
	The PHL Molecular laboratory must receive specimens within 96 hours of collection date and time.
Specimen Processing	N/A
Causes for Rejection	Missing unique identifiers on container, specimen other than NP or N swab, expired collection container, unique identifiers do not match requisition, leaked sample, dry swab, quantity insufficient.
	See 'Rejection Information' for other causes for rejection (DOS-7).
Normal Values	Not Detected
Methods	Nucleic acid amplification
Turnaround Time	7 business days
Clinical Significance and Interpretation	A result of Detected indicates sample is positive for SARS-CoV-2, Influenza A, Influenza B, and/or RSV.
Comments	See Fact Sheet here: https://www.fda.gov/medical-devices/emergency-situations-medical-devices/coronavirus-covid-19-and-medical-devices
Reference Range	Qualitative test with a cutoff (detected-not detected)

SHIGA-TOXIN PRODUCING ESCHERICHIA COLI (STEC) CULTURE OR CONFIRMATION

	DUCING ESCHERICHIA COLI (STEC) COLTURE OR CONFIRMATION
Synonyms	STEC/EHEC, E. coli shiga toxin positive (including STEC O157:H7) species stool culture or confirmation
Patient Requirements	Should be symptomatic with diarrhea.
Collection Requirements	Pure isolate or GN broth preferred. Collect feces/stool in Cary-Blair stool transport media. Stool must be collected and filled to the fill line on the collection vial. Rectal Swab (children only): Collect on a culturette with Cary-Blair transport media. Collect according to instructions on package. Stool specimen must be received in 4 days of collection.
Specimen or Source	Any Source. Isolates, GN broth or feces/stool.
Volume	Actively growing culture or Cary-Blair stool transport media. Fill container with feces until liquid is at line on vial. Mix well. (Follow kit instructions)
Specimen Label	Each specimen should be labelled with patient name, date of birth, and time of collection.
Lab Form/Requisition Requirements	Each specimen must be accompanied by a test request form from the Lab Web Portal (AR LWP) or Clinical Microbiology Form.
Container	Media appropriate for organism survival, Cary-Blair stool or culturette with Cary-Blair transport media.
Storage Conditions	Specimens should be stored and shipped at room temperature (62-77°F).
Shipping Requirements	Specimens should be stored and shipped at room temperature (62-77°F). Stool specimen must be received in 4 days of collection.
	Ship as infectious substance by ADH ground courier, certified overnight mail, submitter courier, or Federal Express in an infectious 6.2 container. Include a prepaid return address label and container will be returned.
	NOTE: Specimens must be received into the lab by 4:00pm on Wednesdays. Do not collect specimens on Thursdays or Fridays.
Specimen Processing	Isolates, GN broth or stool collected and filled to the fill line on the collection vial. DO NOT OVERFILL.
Causes for Rejection	Overfilled, leaking/broken containers, multiple specimens (more than 1 in a 24- hour period), dry specimen, and stool or swabs not in Cary-Blair transport media, expired transport medium. Diapers are not acceptable.
Normal Values	Negative for STEC
Methods	Standard reference methods for above organism isolation and identification.
Turnaround Time	Results by 7 days, unless referred to CDC
Clinical Significance and Interpretation	Possible cause of disease process.
Comments	N/A

SHIGELLA CULTURE OR CONFIRMATION

Synonymo	Shigella energies steel culture or confirmation
Synonyms	Shigella species stool culture or confirmation
Patient Requirements	Should be symptomatic with diarrhea.
Collection Requirements	Pure isolate or GN broth preferred. Collect feces/stool in Cary-Blair stool transport media. Stool must be collected and filled to the fill line on the collection vial. Rectal Swab (children only): Collect on a culturette with Cary-Blair transport media. Collect according to instructions on package.
Specimen or Source	Any Source. Isolates, GN broth or feces/stool.
Volume	Actively growing culture or Cary-Blair stool transport media. Fill container with feces until liquid is at line on vial. Mix well. (Follow kit instructions)
Specimen Label	Each specimen should be labelled with patient name, date of birth, and time of collection.
Lab Form/Requisition Requirements	Each specimen must be accompanied by a test request form from the Lab Web Portal (AR LWP) or Clinical Microbiology Form.
Container	Media appropriate for organism survival, Cary-Blair stool or culturette with Cary-Blair transport media.
Storage Conditions	Specimens should be stored and shipped at room temperature (62-77°F).
Shipping Requirements	Specimens should be stored and shipped at room temperature (62-77°F). Cary-Blair stool must be received in 4 days of collection. Ship as infectious substance by ADH ground courier, certified overnight mail, submitter courier, or Federal Express in an infectious 6.2 container. Include a prepaid return address label and container will be returned.
	NOTE: Specimens must be received into the lab by 4:00pm on Wednesdays. Do not collect specimens on Thursdays or Fridays.
Specimen Processing	
Specimen Processing Causes for Rejection	Wednesdays. Do not collect specimens on Thursdays or Fridays. Isolates, GN broth or stool collected and filled to the fill line on the
	Wednesdays. Do not collect specimens on Thursdays or Fridays. Isolates, GN broth or stool collected and filled to the fill line on the collection vial. DO NOT OVERFILL. Overfilled, leaking/broken containers; multiple specimens (more than 1 in a 24- hour period); dry specimen; and stool or swabs not in Cary-Blair
Causes for Rejection	Wednesdays. Do not collect specimens on Thursdays or Fridays. Isolates, GN broth or stool collected and filled to the fill line on the collection vial. DO NOT OVERFILL. Overfilled, leaking/broken containers; multiple specimens (more than 1 in a 24- hour period); dry specimen; and stool or swabs not in Cary-Blair transport media; expired transport medium. Diapers are not acceptable.
Causes for Rejection Normal Values	Wednesdays. Do not collect specimens on Thursdays or Fridays. Isolates, GN broth or stool collected and filled to the fill line on the collection vial. DO NOT OVERFILL. Overfilled, leaking/broken containers; multiple specimens (more than 1 in a 24- hour period); dry specimen; and stool or swabs not in Cary-Blair transport media; expired transport medium. Diapers are not acceptable. Negative for Shigella Standard reference methods for above organism isolation and
Causes for Rejection Normal Values Methods	Wednesdays. Do not collect specimens on Thursdays or Fridays. Isolates, GN broth or stool collected and filled to the fill line on the collection vial. DO NOT OVERFILL. Overfilled, leaking/broken containers; multiple specimens (more than 1 in a 24- hour period); dry specimen; and stool or swabs not in Cary-Blair transport media; expired transport medium. Diapers are not acceptable. Negative for Shigella Standard reference methods for above organism isolation and identification.
Causes for Rejection Normal Values Methods Turnaround Time Clinical Significance	Wednesdays. Do not collect specimens on Thursdays or Fridays. Isolates, GN broth or stool collected and filled to the fill line on the collection vial. DO NOT OVERFILL. Overfilled, leaking/broken containers; multiple specimens (more than 1 in a 24- hour period); dry specimen; and stool or swabs not in Cary-Blair transport media; expired transport medium. Diapers are not acceptable. Negative for Shigella Standard reference methods for above organism isolation and identification. Results by 7 days, unless referred to CDC.

SYPHILIS

Synonyms	RPR: Non-treponemal test for syphilis TPPA: Treponemal test for syphilis.
Patient Requirements	If patient consents, indicate if patient has a previous reactive result or symptomatic on the test requisition form.
Collection Requirements	SST. Ensure tube is filled. See DOS-7 and DOS-8.
Specimen or Source	Serum only. CSF is not acceptable for testing. Cord blood may be used for baseline screening when no other specimen is available for infants.
Volume	Minimum 2 mL of serum
Specimen Label	Patient's name and date of birth.
Lab Form/Requisition Requirements	Private submitters should send a completed Miscellaneous Examination Form with specimen. See DOS-10.
Container	Collect in SST (allow blood to clot no more than 2 hours at room temperature). Centrifuge.
Storage Conditions	Refrigerate (35-46°F) for up to five days from collection.
Shipping	Ship cold (35-46°F) with cold packs.
Requirements	Ship by ADH courier, certified overnight mail, submitter courier, or Federal Express in a diagnostic 6.2 container. Include a prepaid return address label and container will be returned.
Specimen Processing	Separate serum from cells.
Causes for Rejection	Older than 5 days, not shipped cold (35-46°F), hemolyzed, turbid serum or bacterial contamination, serum not separated from cells if collected in a red top, and not sufficient specimen to test.
	See 'Rejection Information' for other causes for rejection on DOS-7.
Normal Values	Non-reactive
Methods	Nontreponemal Reagin flocculation test for screening and antibody particle agglutination for confirmatory.
Turnaround Time	5 business days
Clinical Significance and Interpretation	Reactive test may indicate past or present infection but must be confirmed by additional testing. All reactive or weakly reactive specimens are tested with TP-PA (PAS).
Comments	Spinal fluid is not acceptable for testing.

TB AND OTHER MYCOBACTERIA CLINICAL SPECIMENS

Synonyms	AFB culture, TB culture, Mycobacteriology smear & culture
Patient Requirements	N/A
-	
Collection Requirements	Collect a series of three single, early morning specimens on successive days.
Specimen or Source	Lung secretions, extrapulmonary
Volume	5-10 mL
Specimen Label	Patient's name, date of birth and the date and time of collection.
Lab Form/Requisition Requirements	Private submitters must send a completed TB/ Mycology test request form with all specimens. See DOS-12.
Container	Sterile, one-use plastic disposable container. Label specimen 50 mL conical tube preferred with the patient's full name, date of birth, and the date and time of collection.
Storage Conditions	Refrigerate (35-46°F).
Shipping	Ship at 35-46°F.
Requirements	Ship by ADH courier, certified overnight mail, submitter courier, or Federal Express in a diagnostic 6.2 container. Include a prepaid return address label and container will be returned.
Specimen Processing	N/A
Causes for Rejection	Leaked in transit, specimen more than 7 days old, and no name on form or collection containers.
Normal Values	Negative
Methods	Acid fast stain, traditional culture methods. Identifications are made by using, Inno-LiPA, Gene Xpert, and MALDI-TOF
Turnaround Time	Acid-Fast Stain-24 hours. Up to 6 weeks for growth and ID.
Clinical Significance and Interpretation	A positive culture will confirm the presence of mycobacteria, such as the M. tuberculosis
Comments	Specimen identification performed by MALDI-TOF and/or INNO-LiPA Mycobacteria v2 test methods. Specimen identification is performed by the INNO-LiPA test method. Drug susceptibility testing is done on all first-time positive TB patients and tested again three months later if cultures continue to be positive for the M. tuberculosis complex.

TB (MYCOBACTERIA) ISOLATE IDENTIFICATION

Synonyms	Definitive identification INNO-LiPA mycobacteria test, or MALDI-TOF, AFB ID, Mycobacteriology ID referred culture
Patient Requirements	N/A
Collection Requirements	Viable growth on solid media or liquid culture except Blood culture media.
Specimen or Source	Isolates from culture
Volume	Viable growth
Specimen Label	Patient's name and date of birth.
Lab Form/Requisition Requirements	Private submitters must send a completed TB/ Mycology Test Request Form with all specimens. See DOS-12.
Container	Solid media or liquid culture. Label specimen with the patient's full name, date of birth, and hospital number (where applicable). Use at least 2 unique identifiers.
Storage Conditions	Transport to Laboratory as soon as possible. Incubate at room temperature until tested.
Shipping Requirements	Ship at 34-46°F Ship by ADH courier, certified overnight mail, submitter courier, or Federal Express in a diagnostic 6.2 container. Include a prepaid return address label and container will be returned.
Specimen Processing	Specimens may be tested as soon as growth is visible.
Causes for Rejection	No viable growth
Normal Values	N/A
Methods	INNO-LiPA; MALDI-TOF
Turnaround Time	Up to 7 business days
Clinical Significance and Interpretation	The treatment of mycobacterial infections can be difficult, and the severity of the infection requires rapid diagnosis.
Comments	MALDI-TOF and/or INNO-LiPA Mycobacteria v2 test are used for identification. If patient is identified as having M. tuberculosis for the first time, then drug susceptibility testing is done and repeated three months later if patient continues to grow positive cultures.

TB RAPID IDENTIFICATION

Synonyms	Xpert MTB/RIF Assay, TB PCR, Cepheid, MTD
Patient Requirements	N/A
Collection Requirements	Collect specimen in sterile, plastic container.
Specimen or Source	Raw sputum or non-sputum.
Volume	5-10 mL
Specimen Label	Label specimen with the patient's full name, date of birth, hospital number if applicable, and the date and time of collection.
Lab Form/Requisition Requirements	Private submitters must send a completed TB/ Mycology test request form with all specimens. See DOS-12.
Container	Sterile, one-use plastic disposable container
Storage Conditions	Refrigerate (35-46°F) prior to and during shipping.
	Ship by ADH courier, certified overnight mail, submitter courier, or Federal Express in a diagnostic 6.2 container. Include a prepaid return address label and container will be returned.
Shipping Requirements	N/A
Specimen Processing	Digested-decontaminated using N-acetyl-L- cysteine-(NALC) sodium hydroxide
Causes for Rejection	Specimens that are grossly bloody, specimens with obvious food particles.
Normal Values	MTB not detected
Methods	Cepheid Xpert MTB/RIF Assay
Turnaround Time	24-48 hours after receipt of specimen into the laboratory.
Clinical Significance and Interpretation	The Xpert MTB/RIF assay is a semi-quantitative nested real- time PCR assay that detects the presence of Mycobacterium tuberculosis complex DNA and possible Rifampicin resistance associated mutation (s) located within the rPoB gene.

TRICHOMONAS VAGINALIS

Synonyms	Trich, TV
Patient Requirements	Must meet HIV/STD program requirements
Collection Requirements	Use powderless gloves when handling collection container. Change gloves between specimens if there is a possibility of contamination.
Specimen or Source	Vaginal swab specimen from females. Urine specimens from males.
	Urine specimens from females (collected only if the Aptima Multi test Swab collection kit is not available).
Volume	Fill urine containers between fill lines on container. Break swab at the black score line.
Specimen Label	Specimen must be labeled with 2 unique identifiers: patient's full name and date of birth. Collection date and collection time may need to be included also.
Lab Form/Requisition Requirements	Complete test request in Common Customer or use Miscellaneous Examination Form (HL-06). In lab system downtime use Clinical Specimen Submission Downtime Form (HL-360).
Container	Label Aptima Multi test swab or urine collection container with the patient's full name and date of birth (or barcode and full name).
Storage Conditions	Urine/ swab collection kits are stored at room temperature. Urine specimens can be stored at room temperature up to 30 days after collection. Multi test swab specimens can be stored at room temperature up to 60 days after collection.
Shipping	Ship at room temperature.
Requirements	Ship by ADH courier, certified overnight mail, submitter courier, or Federal Express in a diagnostic 6.2 container. Include a prepaid return address label and container will be returned.
	Package each specimen individually in a small bag to reduce the risk of rejection due to specimen leaking.
Specimen Processing	N/A
Causes for Rejection	Any specimen collection site other than indicated for specimen or source, name not on specimen or request form, wrong collection device, expired collection kit, overfilled or underfilled urine containers, shaft of swab not broken at the score (too long for testing), and no swab in container.
Normal Values	Negative
Methods	Hologic Aptima Trichomonas vaginalis (TV) assay using the Panther ® System.
Turnaround Time	7 business days
Clinical Significance and Interpretation	Indicates presence of Trichomonas vaginalis. Diagnosis should not be based on results of a single laboratory test. If the laboratory test is presumed negative and clinical symptoms indicate infection, collect specimens for further testing.
Comments	For individuals 14 years of age and older, a single specimen can be tested for Trichomonas vaginalis, Neisseria gonorrhea, and Chlamydia trachomatis.

DOS-71

WHOLE GENOME SEQUENCING (Bacteriology Organisms)

0	
Synonyms	WGS (bacteriology organisms)
Patient Requirements	Should be symptomatic with diarrhea and testing must be approved by the Communicable Disease Section of the Arkansas Department of Health.
Collection Requirements	Collect feces in MCC C&S Medium or other comparable Cary-Blair stool transport media. Fill container with feces until liquid is at line on vial. Mix well. (Follow kit instructions) Rectal Swab – Note: For children only. Collect on a culturette with Cary-Blair transport media. Collect according to instructions on package. Make sure transport media ampoule is broken. Label container with two unique identifiers which includes patient name, date of birth and date of collection.
Specimen or Source	Feces
Volume	Fill container with feces until liquid is at line on vial. Mix well. (Follow kit instructions)
Specimen Label	Patient name, date of birth and date of collection.
Lab Form/Requisition Requirements	Complete the Clinical Micro Form on DOS-13.
Container	Cary-Blair culture vial, MCC Transport kit supplied by ADH or Cary-Blair culturette. Label with two unique identifiers which includes patient name, date of birth, and date of collection.
Storage Conditions	Room temperature (15-35°C per manufacturer)
Shipping Requirements	Specimen must be received within 4 days of collection. DO NOT REFRIGERATE. Room temperature (15-35 C per manufacturer). Specimen must be shipped by courier, certified overnight mail, submitter courier or Federal Express in an infectious 6.2 container. Include a prepaid return address label and container will be returned.
Specimen Processing	Fill to line on container, label with two unique identifiers which includes patient name, date of birth and date of collection include the Clinical Microbiology Form. Container must not be over filled.
Causes for Rejection	Over filled containers, leaking/broken containers, multiple specimens (more than 1 in a 24-hour period), dry specimen, swab in Cary-Blair transport vial, expired transport medium. Diapers are not acceptable. See DOS-7 for other causes for rejection.
Normal Values	Negative for Enteric Pathogens
Methods	Molecular subtyping using the Illumina MiSeq platform and CDC protocols.
Turnaround Time	N/A
Clinical Significance and Interpretation	Varies by isolate identified.
Comments	Reflex test for positive cultures for <i>Listeria, Campylobacter</i> , <i>Salmonella, Shigella, E. coli 0157:H7, Shiga toxin E. coli and Vibrio.</i>

WHOLE GENOME SEQUENCING (COVID-19 Variants)

Synonyms	WGS (COVID-19 Variants)
Patient Requirements	None
Collection Requirements	Collect a nasopharyngeal or a nasal swab and place in viral transport media.
Specimen or Source	Nasopharyngeal swab or nasal swab
Volume	3 mL
Specimen Label	Label with at least 2 unique identifiers - patient's name and date of birth.
Lab Form/Requisition Requirements	Use COVID-19/Flu Multiplex Test Request Form (PHL-17-20). Form must be filled out.
Container	Nasopharyngeal swab or nasal swab in Viral Transport Medium.
Storage Conditions	Refrigerate 35-46°F
Shipping Requirements	Ship cold (35-46°F) with cold packs or on dry ice if frozen. Ship by ADH courier, certified overnight mail, submitter courier, or Federal Express in a diagnostic 6.2 container. Include a prepaid return address label and container will be returned.
Specimen Processing	N/A
Causes for Rejection	Missing unique identifiers on container, specimen other than NP or N swab, expired collection container, leaked specimen, dry swab, quantity insufficient
Normal Values	Specific variant
Methods	Next-Generation Sequencing (NGS) in vitro diagnostic test on the Illumina sequencing platform.
Turnaround Time	N/A
Clinical Significance and Interpretation	Performed for epidemiology purposes only.
Comments	Intended for epidemiology purposes only. Only SARS-CoV-2 specimens meeting our requirements will be sequenced.

DOS-73

VARICELLA-ZOSTER VIRUS (VZV) REAL-TIME PCR DNA ASSAY

Synonyms	Varicella-zoster virus, chicken pox, VZV	
Patient Requirements	Detection of VZV DNA by RT-PCR is most successful when specimens are collected after vesicles or lesions have formed dried crusts, usually 3-7 days after rash onset.	
Collection Requirements	Specimens should be collected on swabs with a synthetic tip, such as nylon, polyester, or Dacron. Do not collect with cotton, calcium alginate, or wooden swabs, as these may contain PCR-inhibiting substances.	
Specimen or Source	Swab of fresh fluid-filled vesicle plus cellular material and vesicular fluid underneath vesicle.	
Volume	N/A	
	If from an LHU: patient's name and barcode, or patient's name and DOB.	
Specimen Label	If not from an LHU: patient's name, DOB, and hospital or clinical ID (where applicable).	
Lab Form/Test Requisition Requirements	Miscellaneous Form (HL-06). See DOS-10.	
Container	Remove scabs.	
Storage Conditions	2-8 C.	
Shipping Requirements	Ship room temperature or on cold packs by ADH courier, submitter courier, certified overnight mail, Federal express, or UPS in a diagnostic 6.2 container.	
	The PHL Molecular laboratory must receive specimens within 7 business days of collection date and time.	
Specimen Processing	Notify Molecular laboratory immediately when specimens have arrived.	
Causes for Rejection	Specimens collected with cotton, calcium alginate, or wooden swabs, specimen leakage, inappropriate specimen type, multiple specimens' containers in one shipment that are not individually bagged to prevent specimen contamination, incomplete specimen labeling, patient identifiers on container and submission form do not match.	

	See 'Rejection Information' for other causes for rejection (DOS-7).
Normal Values	Negative
Methods	Real-time RT-PCR
Turnaround Time	7 business days from date received
Clinical Significance and Interpretation	Any amplification above the threshold Ct value is considered positive for VZA DNA.
Comments	This assay is intended for use in conjunction with clinical observations and other diagnostic assays to determine infection with varicella-zoster virus (VZV) in specimens collected from patients presenting with pustular or vesicular rash illness.
	Submitters should contact Epidemiology prior to submitting varicella-zoster specimens to report a case as suspect and to coordinate receipt of the specimen. Main Epidemiology number: 501-537-8969. After hours: 1-800-554-5738.