

The Submitter's Guide to the Biological Sciences Bureau at SLD

Funded through APHL grant

New Mexico Scientific Laboratories
1101 Camino de Salud NE
Scientific Laboratory Division • Office of the Medical Investigator
Veterinary Diagnostic Services



Our Website: nmhealth.org/about/sld/

NEW MEXICO DEPARTMENT OF HEALTH

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Scientific Laboratory Division

The [Scientific Laboratory Division \(SLD\)](#) is the sole public health, environmental, and drug laboratory for New Mexico. It conducts tests for infectious diseases threatening people, livestock and wildlife, as well as for hazardous materials and pollutants in our water, air and milk. It also tests for alcohol and drugs in DWI criminal cases and for autopsy cases. Over the course of a year, the lab performs more than 350,000 tests on nearly 80,000 samples.

Mission

Our mission is to provide analytical laboratory support services and scientific advisement services for tax-supported agencies and groups or entities administering health and environmental programs for New Mexico citizens.

Accreditation

We are a member in good standing of [Association of Public Health Laboratories \(APHL\)](#) and our division is proud to currently hold the following accreditations and certifications.

CONTACT INFORMATION

[Scientific Laboratory](#)
1101 Camino de Salud NE
Albuquerque, NM 87102
505-383-9000 (Phone)
505-383-9011 (Fax)

MENU

- [Scientific Laboratory](#)
- Biological Sciences**
- Chemistry
- Program Support
- Toxicology

Biological Sciences Bureau

The Biological Sciences Bureau tests for indigenous and external clinical and animal specimens, autopsy and necropsy material investigation and surveillance.

The Bureau is a part of national networks such as the Food and Drug Administration, the Centers for Disease Control and Prevention, biological threat events, and partners with various national organizations such as the Association of Public Health Laboratories, the New Mexico Department of Agriculture, the Association of Public Health Laboratories, and the Association of Public Health Laboratories.

Due to the complexity of the testing that we perform and the resources available, we participate in national networks such as CDC, FDA, EPA, and CLIA through the College of American Pathologists, the Association of Public Health Laboratories, and Virology/Serology.

Services

[BSB Directory of Services](#)

[BSB Schedule](#)

Our Directory of Services (DOS):

<http://nmhealth.org/publication/view/general/1496/>

NEW MEXICO DEPARTMENT OF HEALTH

Scientific Laboratory Division - NM Department of Health
Biological Sciences Bureau

Directory of Services

Contact Information:

TITLE	PHONE/FAX	COMMENTS
BSB Chief	505-383-9122	General inquiries
SLD QA Director	505-383-9005	Quality issues
SLD Front Desk	505-383-9000, 505-383-9150	General inquiries and if uncertain whom to call
Epidemiology and Response Division (ERD)	505-827-0006	Emergency reporting of diseases
BSB Fax	505-383-9121	
SLD Fax	505-383-9011	
Specimen Receiving Phone	505-383-9068 505-383-9066	Courier service
Kit Prep Phone	505-383-9073	Request forms and kits
Kit Prep Fax	505-383-9062	Request forms and kits

Contact Information:

TITLE	PHONE/FAX	COMMENTS
GM Supervisor	505-383-9128	Bacteriology, mycobacteriology, and mycology testing
GM Line Supervisor	505-383-9127	Bacteriology testing
TB/Mycology Line Supervisor	505-383-9126	Mycobacteriology and mycology testing
VS Supervisor	505-383-9124	Virology or serology testing
VS Line Supervisor	505-383-9125	Virology or serology testing
MB Supervisor	505-383-9130	Molecular testing
MB Line Supervisor	505-383-9160	Molecular testing
EM Supervisor	505-383-9129	Food, water, and dairy testing
EM Line Supervisor	505-383-9104	Food, water, and dairy testing

What is a submitter code?

- Submitter codes are used to determine who the final report is sent to for the requested test. The submitter code is correlated to the submitter name, address, and phone number to ensure the report is sent to the intended recipient.

What is a user code?

- User codes determine who is fiscally responsible for the test requested.

What is an EIP isolate?

- The Emerging Infections Program (EIP) is a collaboration with the CDC to collect isolates that might represent epidemiological patterns from pathogens that cause invasive infections, such as *Streptococcus pneumoniae*, and Group A & B Streptococcus.

What is the specimen source?

- The specimen source identifies the anatomic site from where the specimen originated.
- Examples include blood, BAL, pleural biopsy, NP swab, etc.
- This is critical information to ensure that the specimen submitted is appropriate for the testing requested.

What is a patient identifier?

- One of the most important aspects of submitting a specimen is having at least two forms of identification on both the specimen and the Clinical Test Request Form. The patient must be identified and distinguishable from other patients.
- The patient's name, date of birth, and/or the medical record number are considered identifiers.
- The identifiers on the specimen label MUST match those on the Clinical Test Request Form.

Basic Principles:

- Use the SLD Directory of Services (DOS) to obtain information on tests offered, specimen type, collection, handling, transportation, rejection criteria, and special requirements. <http://nmhealth.org/publication/view/general/1496/>
- If possible, collect the specimen in the acute phase of the infection and before antibiotics are administered.
- Select the correct anatomic site for collection of the specimen.
- Collect the specimen using the proper technique and supplies with minimal contamination of normal biota.
- Collect the appropriate quantity of specimen.
- Package the specimen in a container or transport medium designed to maintain the viability of the organism and avoid hazards that result from leakage.
- Label the specimen accurately with the date and time of collection, specific anatomic site (if necessary), and the patient information – name and a unique identification number.
- Transport specimen promptly or make provisions to store in an environment that does not degrade suspected organism(s).
- Notify the laboratory in advance if unusual pathogen or agents of bioterrorism are suspected.

Two Forms of Patient Identifiers on Specimen



Examples:

- Patient name; first and last name count as ONE identifier
- Date of birth
- Patient ID / Hospital number/ Medical Record Number
- Social Security Number
- Requisition number
- Accession number
- Unique random number

Updated SLD Clinical Test Request Forms can be printed from our website:

<https://nmhealth.org/about/sld/bib/>

Submitter
information
&
Clinician
name/phone

Specimen
information:
Source and
date/time of
collection

All yellow
highlighted sections
are required and
must be completed
prior to submission

NEW MEXICO DEPARTMENT OF HEALTH			SLD CLINICAL TEST REQUEST FORM			SLD LAB NO. ONLY ONE FORM PER SPECIMEN											
Scientific/Laboratory Division 1101 Camino de Salud N.E. Albuquerque, NM 87102			51000 (Epidemiology) 52000 (PHD - General) 52110 (PHD - Prenatal) 52120 (PHD - Family Plan) 52340 (PHD - Refugee)			52325 (PHD - Adult Hepatitis) 52330 (PHD - TB Program) 51006 (EIP) 70704 (OMI) Other (Enter Number) _____											
SLD Form 101 v3.0			USER CODES ***			PLEASE PRINT LEGIBLY											
USE >>> EXAMPLE ONLY			DATE			Please limit to one code per form.											
STAMP																	
SUBMITTER INFORMATION			PATIENT INFORMATION														
SUBMITTER CODE: 123			PATIENT NAME: Doe John														
FACILITY NAME: Name of Facility			GENDER: <input checked="" type="checkbox"/> MALE <input type="checkbox"/> FEMALE <input type="checkbox"/> TRANSGENDER														
ADDRESS: 1234 Rainbow Rd.			DATE OF BIRTH: MM/DD/YYYY 05 / 22 / 1975														
Albuquerque, NM 87111			ADDRESS: 987 Plain Rd.														
City State Zip Code			Santa Fe, NM 87505														
PHONE: (505) 555-2222			PATIENT ID (MRN#): 654321														
ATTENTION: Jacob Smith, RN			SOCIAL SECURITY: _____														
CLINICIAN NAME: Dr. Williams Jane			OTHER ID (HVIN): _____														
PHONE #: (505) 555-4444			RACE: Check all that apply														
			<input type="checkbox"/> American Indian/Alaskan Native <input type="checkbox"/> Asian <input type="checkbox"/> Black/African American														
			<input type="checkbox"/> Native Hawaiian/Pacific Islander <input checked="" type="checkbox"/> White <input type="checkbox"/> Other														
			ETHNICITY: <input type="checkbox"/> Hispanic <input checked="" type="checkbox"/> Non-Hispanic														
SPECIMEN INFORMATION																	
S Address			Bronchial Biopsy			Hair			Nasal wash			Sputum, reutilized					
P Blood, femoral			Bronchial Wash			Rectal (site)			Pericardial fluid			Throat wash					
E Blood, heart			Bronchoalveolar lavage			Liver			Peritoneal fluid			Tissue (site)					
R Blood, plasma			Cervix			Lymph node			Pleural fluid			Tissue separate					
M Blood, serum			CSF			Lung, left			Neural Biopsy			Urine					
E Blood, whole			Ear			Lung, right			Rectum			Urethra					
N Bone			Endocervix			Nail (site)			Rectum/vagina			Vagina					
Bone marrow			Eye			<input checked="" type="checkbox"/> Nasopharyngeal swab			Nail (site)			Wound (site)					
Brain			Feces/Stool			<input checked="" type="checkbox"/> Nasopharyngeal wash			Nasal wash			Other					
			Genital			Nasal wash			Sputum, natural								
SPECIMEN COLLECTION									SPECIMEN TYPE			CLINICAL SYMPTOMS					
Date/Time Collected 2 / 25 / 2019 13:00									<input checked="" type="checkbox"/> Critical <input type="checkbox"/> Asymptomatic								
MM/DD/YYYY Military Time									<input type="checkbox"/> Reference <input checked="" type="checkbox"/> Symptomatic			Date of onset: MM/DD/YYYY 2 / 22 / 2019					
												For Detail: http://nmhealth.org/publications/newspaper188					
ANALYSIS REQUESTED																	
BACTERIOLOGY						AFB/TUBERCULOSIS/MYCLOGY						MOLECULAR					
<input type="checkbox"/> B anthracis						<input type="checkbox"/> Aerobic actinomycetes						<input checked="" type="checkbox"/> Virus Isolation					
<input type="checkbox"/> B cereus/s. aureus						<input type="checkbox"/> AFB Culture						<input checked="" type="checkbox"/> Influenza					
<input type="checkbox"/> Culture, CMV						<input type="checkbox"/> AFB Reference Isolate						<input type="checkbox"/> Ebola PCR					
<input type="checkbox"/> Culture, OMI anaerobic						<input type="checkbox"/> Suspected ID						<input type="checkbox"/> Dengue/Chikungunya PCR					
<input type="checkbox"/> Campylobacter species												<input type="checkbox"/> Ebola PCR (ERD only)					
<input type="checkbox"/> E. coli O157:H7																	
<input type="checkbox"/> EIP Group A Streptococcus																	
<input type="checkbox"/> EIP Group B Streptococcus																	
<input type="checkbox"/> EIP G. pneumoniae isolate																	
<input type="checkbox"/> GC culture																	
<input type="checkbox"/> Haemophilus influenzae typing																	
<input type="checkbox"/> Listeria monocytogenes																	
<input type="checkbox"/> Legionella culture																	
ID of Bacteria (specify)																	
<input type="checkbox"/> Anaerobe																	
<input type="checkbox"/> Gram negative																	
<input type="checkbox"/> Gram positive																	
<input type="checkbox"/> Antimicrobial Resistance																	
<input type="checkbox"/> (Please attach Susceptibility Report)																	
<input type="checkbox"/> CRE Panel (Indicate below)																	
<input type="checkbox"/> CRE																	
<input type="checkbox"/> CRPA (P. aeruginosa)																	
<input type="checkbox"/> Other																	
<input type="checkbox"/> Pertussis (Bordetella sp.) PCR (ERD only)																	



User code



Patient information:
Must have at least 2 individual identifiers.
Patient gender is required (select one option).



Analysis (Test) requested

CLINICAL TEST REQUEST FORM

Please remember to

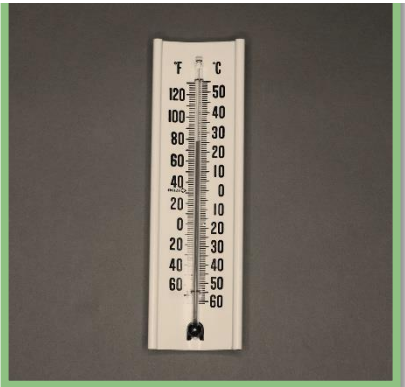
- Submit a clinical test request form for each sample
- Submit only 1 specimen per form
- Complete all yellow highlighted sections

NOTE: Missing or inaccurate information on the test request form and/or sample will cause a delay in testing and result reporting.

Delayed Testing = Delayed Patient Care

Each specimen is to be maintained and shipped at a specific temperature which is dependent on the type of specimen requirements.

These requirements can be found in the SLD BSB Directory of Service (DOS)

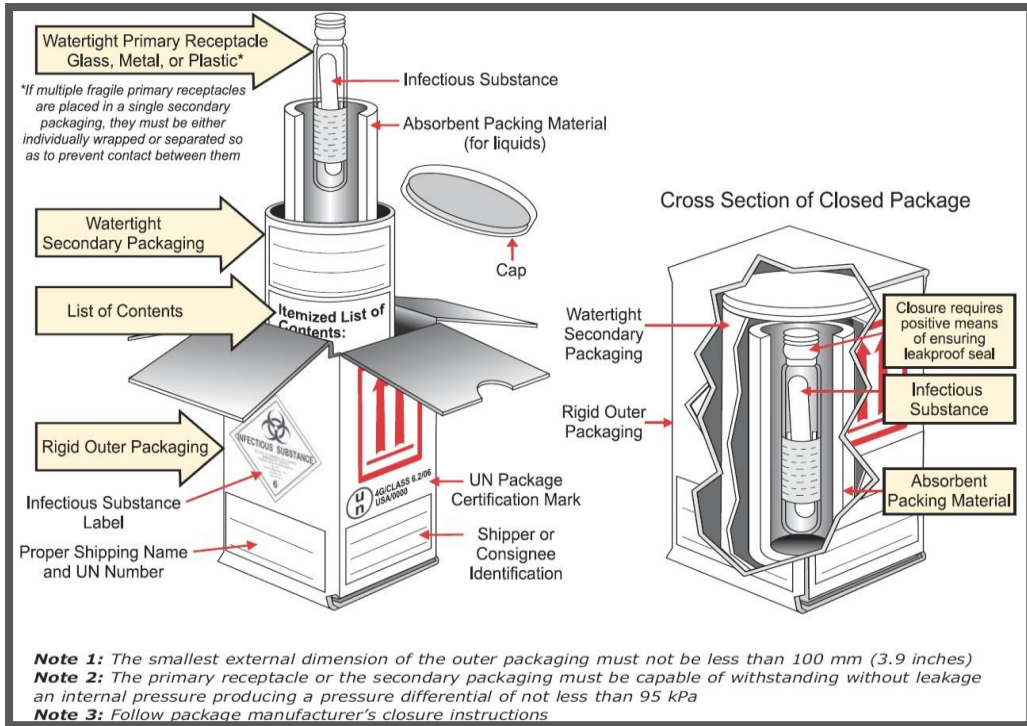


Refrigerated (2-8°C)

Room Temperature

Frozen

Category A



Documented training and certification required to ship Category A

Microorganisms

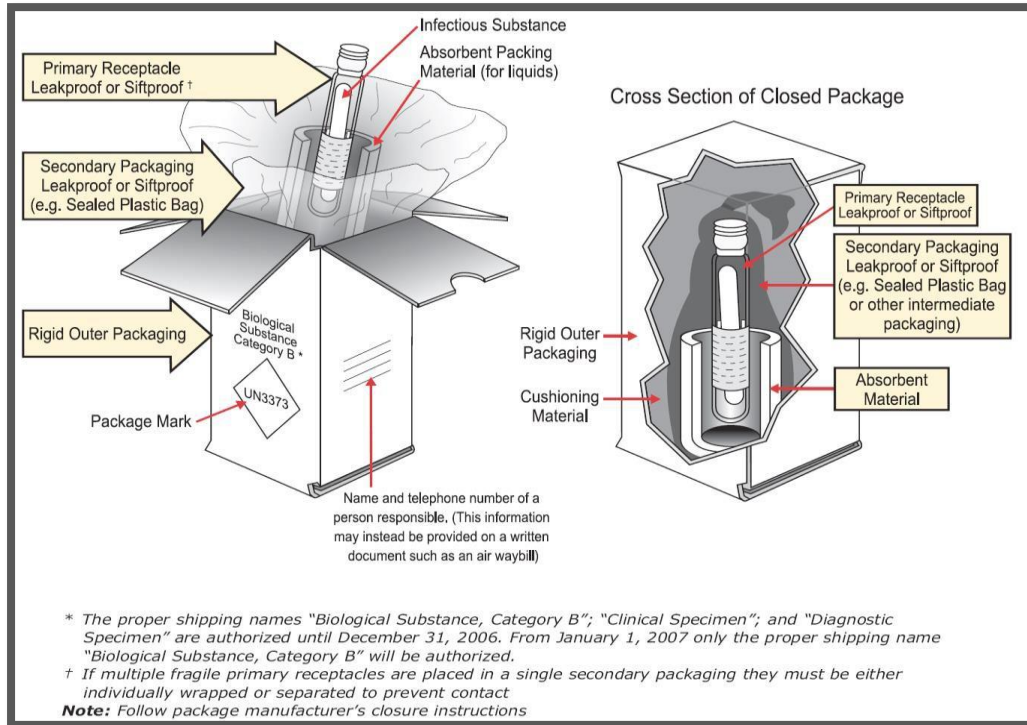
Bacillus anthracis (cultures only)
Brucella abortus (cultures only)
Brucella melitensis (cultures only)
Brucella suis (cultures only)
Burkholderia mallei (cultures only)
Chlamydia psittaci – avian strains (cultures only)
Clostridium botulinum (cultures only)
Coccidioides immitis (cultures only)
Coxiella burnetti (cultures only)
Crimean-Congo hemorrhagic fever
Dengue virus (cultures only)
Eastern Equine encephalitis virus (cultures only)
Escherichia coli, verotoxigenic (cultures only)
Ebola virus
Flexal virus
Francisella tularensis (cultures only)
Guanarito virus
Hantaan virus
Hantavirus causing hemorrhagic fever with renal syndrome
Hendra virus
Hepatitis B virus (cultures only)
Herpes B virus (cultures only)
Human immunodeficiency virus (cultures only)
Highly pathogenic avian influenza virus
Junin virus
Kyasanur Forest disease virus
Lassa virus

Examples of Category A agents

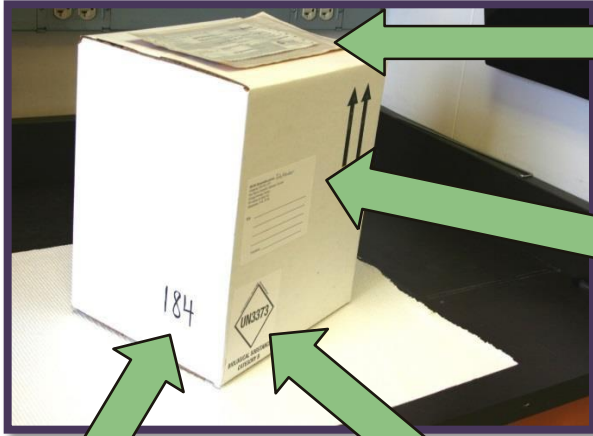
Microorganisms

Machupo virus
Marburg virus
Monkeypox virus
Mycobacterium tuberculosis (cultures only)
Nipah virus
Omsk hemorrhagic fever virus
Poliovirus (cultures only)
Rabies virus (cultures only)
Rickettsia prowazekii (cultures only)
Rickettsia rickettsii (cultures only)
Rift valley fever virus (cultures only)
Russian spring-summer encephalitis virus (cultures only)
Sabia virus
Shigella dysenteriae type 1 (cultures only)
Tick-borne encephalitis virus (cultures only)
Variola virus
Venezuelan equine encephalitis virus (cultures only)
West Nile virus (cultures only)
Yellow fever virus (cultures only)
Yersinia pestis (cultures only)

Category B



Documentation of training recommended



Courier form

To and from address Label

If using DMC as the courier this information can be included on the DMC courier form.

DOT Required Labeling Information:

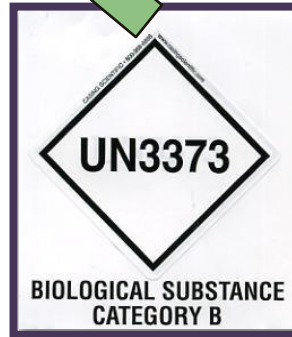
First **and** last name of individual preparing the shipment/emergency contact

Emergency contact phone number

UN3373 Labeling

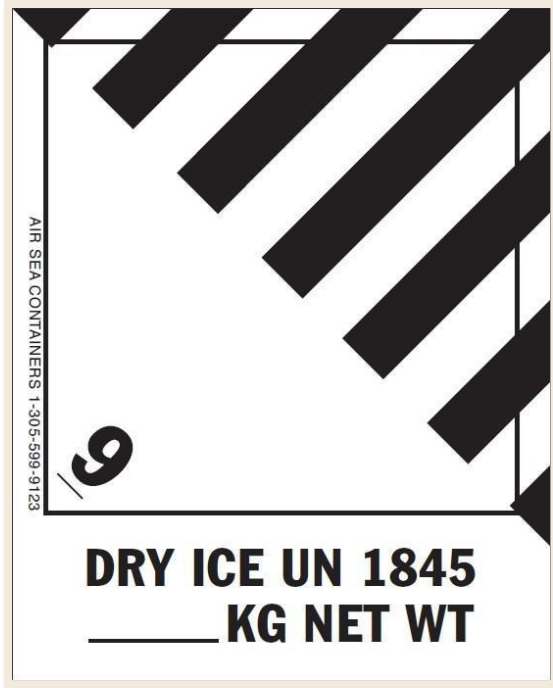
Submitter code

Writing your submitter code on the box will ensure return of shipping box.



Shipping with Dry Ice

When shipping with dry ice, the UN1845 label is required per DOT



Affix new no-line label

Ensure box or label says
DRY ICE and UN1845

Write quantity of dry ice
used

Maximum quantity =
2.5 kg

Compromised Specimen

- Leaking container
- Broken container
- Incorrect shipping temperature
- Errors with specimen
- Incorrect holding time
- Incorrect volume

Improperly labeled specimen

- No identifier
- Only one identifier
- Specimen identifier does not match form

**SPECIFIC REJECTION CRITERIA CAN BE
LOCATED UNDER EACH TEST IN THE DIRECTORY OF SERVICES**

Specimen



- Refrigerated/Frozen NP swab

Collection



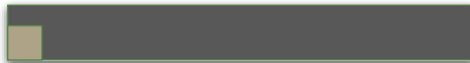
- Rayon, Dacron[®], flocked swabs
- Inoculate swab per kit instructions
- Return swab to original tube

Handling



- Ambient ≤ 4 hrs.
- Refrigerated ≤ 2 days
- Frozen ≤ 2 weeks

Shipping



Ship with -20°C (-4°F) cold packs following DOT/IATA regulations.

Specific Rejection Criteria



- Calcium-alginate swabs (shown to inhibit PCR)
- Respiratory aspirates or Nasal swabs
- Swabs in transport medium

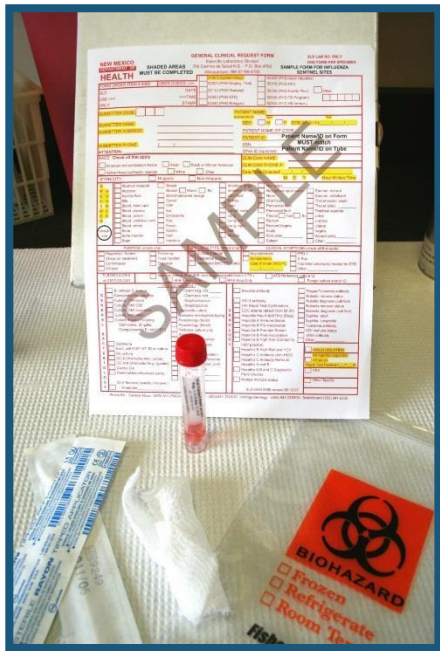
Specimen

- NP, nasal, or throat swab
- Nasal aspirate
- Nasal wash
- Dual NP/throat swab
- BAL – Culture only, NOT RT-PCR
- Bronchial wash
- Tracheal aspirate
- Sputum
- Lung tissue
- *For Collection info see Directory of Services*

Handling

- Delivery to lab \leq 72 hrs. = 2-8°C (35 – 46°F)
- Delivery > 72 hrs. = -70°C (-94°F) or on dry ice
- Do not freeze at -20°C (-4°F), such as in a household type freezer.

SLD Virus Isolation Kit



Clinical Request Form

Specimen bag with outer sleeve

Viral transport medium

2 swabs

Gauze pad



Break off the plastic shaft so swab fits within tube.
Cap tightly, seal with parafilm, and refrigerate.



Place the sealed specimen with the absorbent material
into a zip-lock biohazard bag.
Only 1 specimen per bag.



Place form in outer sleeve of bag to separate it from
specimen, in case of leakage.



Place the bagged specimen in shipping container on ice
packs to keep specimen cold until arrival at SLD. If >72
hrs., ship on enough dry ice to keep frozen.

Specific Rejection Criteria

- Specimens older than 72 hrs. and not frozen
- Calcium Alginate swab for RT-PCR
- Cotton swabs and/or swabs with wooden shafts for RT-PCR & Virus Isolation

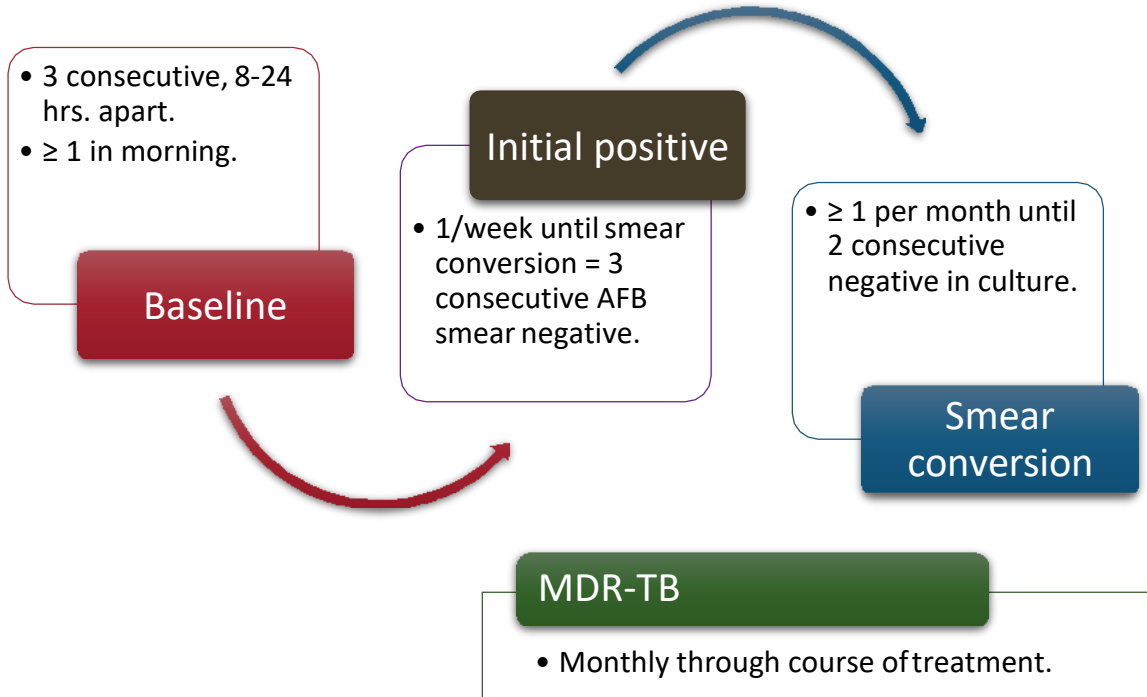
Special Requirements

- Place specimen in viral transport medium.
- Do not freeze at -20°C (-4°F), such as in a household type freezer.
- Patient ID number **must** be provided on the clinical test request form.

Specimen Types Accepted by SLD

Sputum	<ul style="list-style-type: none">• Instruct patient on importance of good quality sputum.• 3-10 ml of sample in a 50 ml tube supplied by SLD kit prep.
Gastric Lavage	<ul style="list-style-type: none">• Neutralize specimen before sending.• Notify SLD before collection.
Stool/Feces	<ul style="list-style-type: none">• Notify SLD before sending.
Urine	<ul style="list-style-type: none">• 3-5 daily, consecutive collections of first morning urine. Each sample should be ≥ 24 hrs. apart.• Avoid pooled, midstream, or 24 hr. collections.
Tissue	<ul style="list-style-type: none">• Collect aseptically and submit in 5 ml sterile saline.
CSF/other sterile body fluids	<ul style="list-style-type: none">• Collect aseptically in sterile screw cap tube.• Submit 5-50 ml to increase chance of detection.• DO NOT SEND BLOOD.

Sputum Collection Schedule



Collection

- See Directory of Services for additional information.
- For questions about sputum collection contact the TB Control Program helpline at (505) 827-2471.

Handling

- Refrigerate samples after collection.

Shipping

- Ship samples as they are collected. DO NOT BATCH.
- Send cold on ice pack. DO NOT FREEZE.

Specific Rejection Criteria

- Broken or leaking tubes
- Specimen in preservative (formalin)
- Inadequate specimen volume
- Received on a swab, in a swab transport device, in gauze, paper towel etc.
- Sputum specimens collected < 8 hrs. apart, urine collected < 24 hrs. apart, specimens > 7 days old upon receipt
- Improper temperature
- Evidence of improper handling

Special Requirements

- Use sterile 50 ml centrifuge tubes supplied in the collection kit.
- NO collection cups
- Legible, completed clinical test request form

Description

- New Mexico Emerging Infections Program (EIP) bacterial isolates requested for Epidemiological Investigation as part of a CDC collaborative study.
- The EIP user code and the test requested are independent of one another.

Specimen

- Isolates of *Streptococcus pneumoniae*, Group B Streptococcus, or Group A Streptococcus isolated from sterile sites including blood, CSF, pleural fluid, peritoneal fluid, joint, bone, muscle, and internal body sites.
- Send on appropriate media.
- If specimen is not from sterile site, mark Gram negative or positive ID.

Shipping

- Cold, on ice pack, or room temperature. DO NOT FREEZE.

Special Requirements

- On Clinical Test Request Form: Select “EIP Group A Streptococcus”, “EIP Group B Streptococcus”, or “EIP *S. pneumoniae* isolate”

Description

- Carbapenem Resistant *Enterobacteriaceae* (CRE), Carbapenem Resistant *Pseudomonas aeruginosa* (CRPa) and/or Carbapenemase producing bacteria
- Contact GM Supervisor 383-9128 or GM Line Supervisor 383-9127

Specimen

- Send isolate on culture medium - nutrient agar slants or MAC agar plates.
- Carbapenemase producing *Enterobacteriaceae* plasmids are not stable. Keep isolate refrigerated until shipment.
- Avoid multiple passes / sub-culture.

Shipping

- Cold, on ice pack. DO NOT FREEZE

Special Requirements

- Include a copy of the susceptibility report and the SLD Clinical Test Request Form.
- Test Request Form: Under General Microbiology select “CRE Panel” and indicate the organism genus and species.

CRE, CRPa, Carbapenemase Producing Bacteria Inclusion Criteria

Please submit isolates with an SLD Clinical Test Request form and a copy of your susceptibility results for:

Any *Enterobacteriaceae* where the

- MIC is $\geq 4\mu\text{g/mL}$ for Meropenem, Imipenem, **or** Doripenem; **or** $\geq 2\mu\text{g/mL}$ Ertapenem
- Disk diffusion zone ≤ 19 mm for Meropenem, Imipenem **or** Doripenem; **or** ≤ 18 mm Ertapenem

Any *Pseudomonas aeruginosa* where the

- MIC is $\geq 8\mu\text{g/mL}$ for Meropenem, Imipenem, **or** Doripenem
- Disk diffusion zone ≤ 15 mm for Meropenem, Imipenem **or** Doripenem

Any *Pseudomonas aeruginosa* or *Enterobacteriaceae* that demonstrates carbapenemase production by:

- Positive PCR (KPC, NDM, VIM, IMP, OXA-48)
- Other method (such as Carba NP, mCIM, Modified Hodge test)

Description

- Sin Nombre Virus (SNV) IgM – used to detect IgM antibodies to SNV and to diagnose acute infections with hantaviruses.
- Testing must be approved by the Epidemiology and Response Division 505-827-0006
- Test Request Form: Under the Serology section select “SNV Hantavirus”

Specimen

- Serum – centrifuge and aliquot the serum into a separate container
- Refrigerate after serum is separated

Shipping

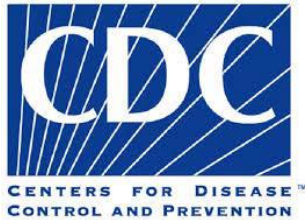
- Ship on cold packs if specimen arrives within 5 days
- Freeze at $\leq -20^{\circ}\text{C}$ and ship on dry ice if greater than 5 days

Specific Rejection Criteria

- Specimens older than 5 days and not frozen
- Serum specimens not separated from the clot

Notifiable conditions in New Mexico

- The list is located at <http://nmhealth.org/publication/view/regulation/372/>
- Examples include anthrax, plague, listeria, salmonella, etc.
- ERD must be notified either immediately or routinely at 505-827-0006
- Suspect or confirmed cases of Tuberculosis or Nontuberculosis mycobacteria must be reported to the Tuberculosis Program at 505-827-2473
- Certain isolates/clinical specimens need to be submitted to SLD. See link above for a complete list.

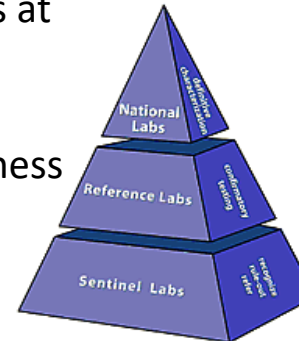


Laboratory Response Network RULE OUT / REFER Program

Organisms that cannot be ruled out as an agent of bioterrorism must be sent to the Scientific Laboratory Division for confirmatory testing.

Contact a General Microbiology supervisor at 505-383-9128, or -9127 during business hours, or after hours at 505-228-4480.

For training, contact SLD's Bioterrorism Readiness Coordinator at 505-383-9006.



Specimens



- Correct media/collection container for specimen
- Labeled with two identifiers that correspond with the SLD Clinical Test Request Form
- Lids are tightly sealed
- Stored at the appropriate conditions

Clinical Request Form



- Check appropriate User Code
- Write in your Submitter Code, Submitter name, address, and phone number
- Clinician Name
- Write in patient name, gender, complete date of birth, and patient ID (MRN#)
- Check the appropriate Specimen Source box
- Enter date & time of collection (military time)
- Select the analysis requested
- Place Clinical Test Request Form in OUTER sleeve of biohazard bag
- Any questions contact SLD

Packaging and Shipping



- Store at required temperature until DMC pick up
- Call DMC Courier for next day pick-up (1-800-825-7274)
- Place specimen/s in Styrofoam cooler with appropriate shipping requirement, i.e. cold pack, dry ice, or room temperature
- Place cooler in cardboard box with correct labeling (UN3373 Biological Substance Category B, and dry ice sticker if used)
- Fill out Packing List
- Fill out DMC Courier Form
- Write return address, submitter code, emergency contact name and phone number on box