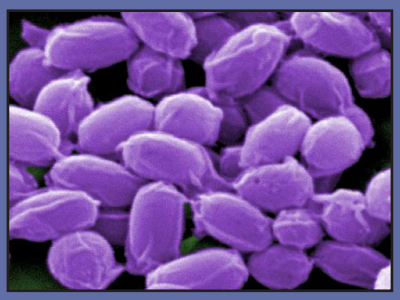
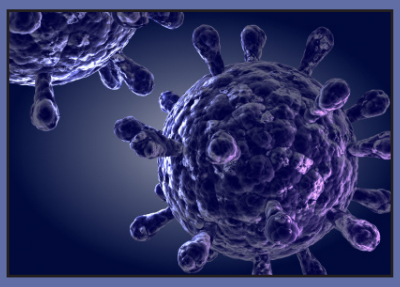
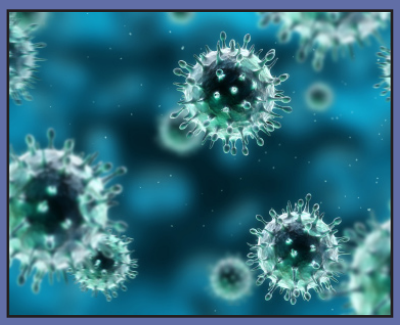


Bacillus anthracis

E. coli O157 H7



HIV



Influenza

Directory of Services 2011-2013

Division of
Laboratory Services
Microbiology

NORTH DAKOTA
DEPARTMENT *of* HEALTH

DIRECTORY OF SERVICES
TABLE OF CONTENTS

This publication is available in alternative forms. Please contact:

D*ivision of Laboratory Services—Microbiology*
Box 5520
Bismarck, ND 58506-5520
701.328.6272
www.ndhealth.gov/microlab

NORTH DAKOTA
DEPARTMENT of HEALTH

NORTH DAKOTA
DEPARTMENT of HEALTH

DIVISION OF LABORATORY SERVICES – MICROBIOLOGY

Myra Kosse, Division Director
Terry Dwelle, MD, CLIA Clinical Consultant
Laurie Linz, MD, CLIA Laboratory Director

GENERAL INFORMATION

CLIA NUMBER: 35DO691722

The *2011-2013 Directory of Services* contains a listing of services and tests provided by the Division of Laboratory Services – Microbiology. Each test entry contains a brief explanation of the test, the analytical time, type of specimen required, cost and CPT code(s).

All specimens submitted to the Division of Laboratory Services should be collected and handled with care. Improperly collected or inadequate specimens may give laboratory results of questionable value. Complete information is essential and should be supplied on the request form accompanying the sample. ***Testing may be delayed if all requested information is not submitted with the specimen.***

The Division of Laboratory Services provides collection kits and mailing containers as described in Appendix B. Infectious substances must be mailed in containers that meet federal regulations. Please refer to the IATA Guidance Document for Infectious Substances in Appendix A or contact the Division of Laboratory Services for assistance.

FEES AND SERVICES ARE SUBJECT TO CHANGE BY THE DIVISION OF LABORATORY SERVICES

Telephone 701.328.6272

******

A division of the North Dakota Department of Health's
Environmental Health Section

SPECIMEN LABELING/REJECTION POLICY

Appropriate laboratory slips must accompany each specimen and must contain the following information:

1. Patient name
    a. Anonymous testing will not be performed.
    b. Specimens with obvious use of pseudo-names will be accepted only with approval by division director.
2. Date of birth
3. Physician
4. Institution
5. Identification code
6. Type of specimen
7. Test required
8. Principle symptoms
9. Date of collection
10. Date of onset (required for viral specimens)
11. Record of immunizations (required for viral specimens)

Improperly filled-out request forms will be handled as follows:

1. Forms missing information will be logged in and the sender will be contacted for necessary information.
2. The Quality Assurance Coordinator will review records monthly and call any facilities repeatedly submitting incomplete request slips.
3. Facilities that continue to submit incomplete slips will be notified by mail that testing may be delayed.
4. If calling and mail notification does not correct the problem, further actions will be evaluated on an individual basis.

Criteria for specimen rejection:

1. Nonresident, out-of-state facility or physician
2. Recommended transport/hold time exceeded
3. Specimen damaged (leaked, broken, etc.)
4. Improper specimen (contaminated, inadequate collection, wrong body site, duplicate sample)
5. Unsuitable for request
6. Specimens of insufficient amount (QNS)
7. Unlabeled or mislabeled specimens
8. Specimen from a person or facility that has been denied services.

Action on rejected specimens will include one or more of the following:

1. Alert physician and/or institution
2. Request a repeat
3. Hold specimen until contacted
4. Send report stating reason for rejection

Contact Information

North Dakota Department of Health
Division of Laboratory Services – Microbiology
2635 East Main Ave.
P.O. Box 5520
Bismarck, ND 58506
www.ndhealth.gov/microlab

Administration

CLIA Clinical Consultant **Terry Dwelle, MD** **tdwelle@nd.gov** CLIA Laboratory Director **Laurie Linz, MD** **llinz@primecare.org**	Division of Laboratory Services Director **Myra Kosse** **701.328.6119** **mkosse@nd.gov**	Laboratory Manager/Supervisor – Data Entry, STDs, Immunology, Molecular, Rabies, Supplies, Virology **Mike Trythall** **701.328.6278** **mtrythal@nd.gov**
Supervisor – Information Technology, Quality Assurance, HIPPA **Eric Hieb** **701.328.6289** **ehieb@nd.gov**	Supervisor – Bioterrorism Program, Publications, Security, Training, Outreach **Jan Trythall** **701.328.6295** **jtrythal@nd.gov**	Supervisor – Bacteria, Dairy/Water, Mycobacteria, Mycology, Parasites **Lisa Well** **701.328.6292** **lwell@nd.gov**
QA/QC, Safety **Tim Brosz** **701.328.6277** **tbrosz@nd.gov**	**Main Laboratory** **Phone Number:** **701.328.6272** **FAX:** **701.328.6280**	Billing/Office Management **Karla Reinhardt** **701.328.6276** **kreinhardt@nd.gov**

After hours and during the weekend, contact the on-call microbiologist through State Radio at:
800.472.2121

OR

Call our on-call microbiologist directly at:
701.400.2772

Laboratory Testing and Fee Schedule

Clinical Laboratory Testing and Fee Schedule
Set-Up Days: Monday through Friday unless otherwise indicated.

TEST	EXPLANATION	COST
Adenovirus Culture CPT CODE: 87252 - Tissue cult 87260 - ID	Send appropriate respiratory specimen (NP swab, throat swab, nasal aspirate, nasal washing). Transport at 4°C. Normal Value: Negative Analytical Time: 14 days	$41
Anthrax Confirmation PCR/Culture CPT CODE: 87798 - PCR 87077 - Culture	Send isolate in appropriate tubed transport media or cut out a piece of agar with growth and send in a sterile container. Identification by means of differential media, biochemicals and molecular analysis. **Plates are not accepted.** For primary isolation and PCR collect the following: • Cutaneous anthrax: Using sterile swabs collect vesicular fluid from unopened vesicles or collect from beneath the eschar. • Gastrointestinal: Collect blood, stool or rectal swabs. Transport stool and swabs at 2°C to 8°C. Transport blood at room temperature. • Inhalational: Collect blood, transport at room temperature. **Please refer to www.asm.org for the most current sentinel site laboratory rule out procedures.** **Notify the Division of Laboratory Services and the Division of Disease Control if bioterrorism is suspected. Prior arrangements must be made before sending suspect BT specimens.** **After normal work hours, contact State Radio to speak to the case manager or contact our on-call microbiologist directly at 701.400.2772.** Normal Value: Not applicable Analytical Time: Preliminary results 1 day; Confirmation 1-2 days	No Charge
Anti-Hepatitis B Core EIA CPT CODE: 86704 - Total Ig	Send 2 ml acute phase serum. Include required **patient data** on request slip. Normal Value: Negative Analytical Time:1 day	$26
Anti-Hepatitis B Surface Immune Status (Anti-HBs) EIA CPT CODE: 86706	Send 2 ml serum. Anti-HBs testing is performed on Friday. Normal Value: Positive Analytical Time: 1 day	$26

Clinical Laboratory Testing and Fee Schedule
Set-Up Days: Monday through Friday unless otherwise indicated.

TEST	EXPLANATION	COST
Antimicrobial Susceptibility Testing Reference Bacterial Isolates and Submit able Isolates (includes PBP2a, E-test or MIC) CPT CODE: 87181 - E-test 87185 - PBP2a 87186 - MIC	Send pure isolate in appropriate tubed medium. Plates are not accepted. [Includes Strep pneumoniae*, MRSA**, Haemophilus influenza, N. gonorrhoeae, ESBL, VRE, Vancomycin resistant Staphylococcus] Normal Value: Susceptible, intermediate or resistant to appropriate antimicrobials Analytical Time: 2 days **Rifampin and levofloxacin testing on request.* ***Send all suspected methicillin resistant staphylococcus isolates from sterile sites. Include MIC susceptibility test results with request form.*	No Charge
Arboviral Encephalitis Panel Culture CPT CODES: 87252 - Tissue Cult 87253 - ID	Send 2 ml CSF in a sterile container. Transport at 4°C. Includes Western Equine, Eastern Equine, St. Louis, California group and West Nile Virus. Normal Value: Negative Analytical Time: 30 days	$41
Arboviral Encephalitis Panel IFA and EIA CPT CODES: 86654 - WEE 86652 - EEE 86653 - SLE 86651 - California 86788 - West Nile	IgM antibody detection by IFA or EIA. Send 2 ml acute phase serum. Include required **patient data** on request slip. Normal Value: West Nile Virus EIA - Negative Western Equine, Eastern Equine, St. Louis, California Group IFA <1:16 Analytical Time: 2 days (Seasonal: June 1- September 30)	$124
Bacterial - Aerobic Reference Culture CPT CODE: 87077	Send pure isolate in appropriate tubed transport medium or Amies (with charcoal) transport medium. Plates not accepted. Normal Value: Not applicable Analytical Time: 7 days	$26
Bacterial - Anaerobic Reference Culture CPT CODE: 87076	Send pure isolate in anaerobic tubed medium such as Anaerobic Thio, Amies (with charcoal) transport medium, PORT-A-CUL tubes, etc. Plates not accepted. Normal Value: Not applicable Analytical Time: 7 days	$26

Clinical Laboratory Testing and Fee Schedule
Set-Up Days: Monday through Friday unless otherwise indicated.

TEST	EXPLANATION	COST
Bioterrorism Agents	See listing for individual agents: "Anthrax PCR and Culture, Brucellosis PCR and Culture, Clostridium Botulinum Toxin ELISA, Coxiella Burnetti (Q Fever) PCR, Glanders PCR and Culture, Melioidosis PCR and Culture, Smallpox PCR, Staphylococcus Enterotoxin B TRF, Ricin Toxin PCR and TRF", Tularemia PCR and Culture, Yersinia Pestis (Plague) PCR and Culture **Notify the Division of Laboratory Services and the Division of Disease Control if bioterrorism is suspected.** **Notify the Division of Laboratory Services for referral instructions if your laboratory is unable to rule out BT agents.** **Prior arrangements must be made before sending suspect BT specimens. After normal work hours, contact State Radio (1.800.472.2121) to speak to the case manager or contact the on-call microbiologist directly at 701.400.2772.** **Presumptive results will be available for all BT agents within 24 hours of receipt. Confirmatory results may be available as soon as 24 hours after receipt for *B. anthrasis* isolates, but may require 3 to 5 days for slow growing gram negative BT agents(*Francisella, Burkholderia, Brucella, Yersinia*).**	No Charge
***Bordetella pertussis* PCR/Culture** CPT CODE: 87798 - PCR 87070 - Culture 87077 - ID	Collect duplicate nasopharyngeal specimens on Dacron swabs. Place one in a Regan Lowe transport for isolate recovery and the second swab into the plastic transport tube for nucleic acid amplification. Both collection devices must be sent together. See specimen collection directions in appendix B of this document. Contact the Division of Laboratory Services for transport kits. Include patient symptoms and vaccine history. Normal Value: Negative Analytical Time: 2 days *Positive results will be phoned to your facility.	$51
Borrelia burgdorferi	See Lyme Disease	$76
Brucellosis Confirmation PCR/Culture CPT CODE: 87077 - Culture 87798 - PCR	Send isolate in appropriate tubed transport media or cut out a piece of agar with growth and send in a sterile container. Identification by means of differential media, biochemicals and molecular analysis. **Plates are not accepted.** For primary isolation and PCR collect blood, transport at room temperature. **Notify the Division of Laboratory Services and the Division of Disease Control if bioterrorism is suspected. Prior arrangements must be made before sending suspect BT specimens.** **After normal work hours, contact State Radio to speak to the case manager or contact our on-call microbiologist directly at 701.400.2772.** Normal Value: Not applicable Analytical Time: Preliminary results 1 day; Confirmation 3 to 5 days	No Charge

Clinical Laboratory Testing and Fee Schedule
Set-Up Days: Monday through Friday unless otherwise indicated.

TEST	EXPLANATION	COST
Burkholderia mallei PCR/Culture CPT CODE: 87077 - Culture 87798 - PCR	Send isolate in appropriate tubed transport media or cut out a piece of agar with growth and send in a sterile container. Identification by means of differential media, biochemicals and molecular analysis. **Plates are not accepted.** For primary isolation and PCR, the following are appropriate sources: blood, bone marrow, sputum, abscess and wound swabs and urine. Transport blood at room temperature; all others transport at 2°C to 8° C. **Notify the Division of Laboratory Services and the Division of Disease Control if bioterrorism is suspected. Prior arrangements must be made before sending suspect bioterrorism specimens.** **After normal work hours, contact State Radio to speak to the case manager or contact our on-call microbiologist directly at 701.400.2772.** Normal Value: Not applicable Analytical Time: Preliminary results 1 day; Confirmation 1 to 2 days	No Charge
Burkholderia psuedomallei PCR/Culture CPT CODE: 87077 - Culture 87798 - PCR	Send isolate in appropriate tubed transport media or cut out a piece of agar with growth and send in a sterile container. Identification by means of differential media, biochemicals and molecular analysis. **Plates are not accepted.** For primary isolation and PCR, the following are appropriate sources: blood, bone marrow, sputum, abscess and wound swabs and urine. Transport blood at room temperature, all others transport at 2°C to 8° C. **Notify the Division of Laboratory Services and the Division of Disease Control if bioterrorism is suspected. Prior arrangements must be made before sending suspect bioterrorism specimens.** **After normal work hours, contact State Radio to speak to the case manager or contact our on-call microbiologist directly at 701.400.2772.** Normal Value: Not applicable Analytical Time: Preliminary results 1 day; Confirmation 1 to 2 days	No Charge
California group Encephalitis Antibody IFA	See Arboviral Encephalitis Panel	
Campylobacter Confirmation Culture CPT CODE: 87077	Send suspected Campylobacter species pure isolate in suitable tubed medium such as Campy-thio, Amies, etc. Plates not accepted. Normal Value: Negative Analytical Time: 3 days	No Charge

Clinical Laboratory Testing and Fee Schedule
Set-Up Days: Monday through Friday unless otherwise indicated.

TEST	EXPLANATION	COST
Chlamydia trachomatis **Culture** CPT CODE: 87110 - Culture 87140 - ID	Obtain epithelial cells from infected site. Place swab specimen into viral transport medium immediately. Send on wet ice. Contact the Division of Laboratory Services for transport medium and collection instructions. Normal Value: Negative Analytical Time: 7 days	$41
Chlamydia trachomatis **Antigen Detection DFA** CPT CODE: 87270	DFA test for ocular, nasopharyngeal or rectal specimens using the collection system provided. Contact the Division of Laboratory Services for collection kits. For cervical, urethral or urine specimens, see Chlamydia trachomatis and Neisseria gonorrhoeae Nucleic Acid Amplified Test. Normal Value: Negative Analytical Time: 1 day	$30
Chlamydia trachomatis **and** ***Neisseria gonorrhoeae*** **Nucleic Acid Amplified Test** CPT CODE: 87491 - Chlamydia 87591 - Gonorrhoeae	Send urethral and cervical specimen in Gen-Probe® unisex swab specimen collection kit. • 2ºC to 30ºC transport • Test within 60 days of collection • Freezing extends an additional 30 days Send urine in a Gen-Probe® urine specimen collection kit. Contact the Division of Laboratory Services for collection kits. • Patient should not have urinated for at least 1 hour prior to sampling. • Collect 20 to30mls of a first-catch urine. • Use the transfer pipette provided to fill the collection tube to a volume within the two black lines on the side of the tube. • 2ºC to 30ºC transport • Test within 30 days of collection. • Needs to be added to the collection kit within 24 hours. Note: Rectal and ocular specimens should be submitted as Direct Antigen Detection or Culture tests. Normal Value: Negative Analytical Time: 1 day	$33

Clinical Laboratory Testing and Fee Schedule
Set-Up Days: Monday through Friday unless otherwise indicated.

TEST	EXPLANATION	COST
Clostridium botulinum toxin DIG ELISA	**Contact the Division of Laboratory Services for specific recommendation regarding collection and transportation. Preliminary testing only performed at Division of Laboratory Services. All confirmation testing will be performed by the Minnesota Department of Health and/or the Centers for Disease Control and Prevention.** **Notify the Division of Laboratory Services and the Division of Disease Control if bioterrorism is suspected. Prior arrangements must be made before sending suspect bioterrorism specimens.** **After normal work hours, contact State Radio to speak to the case manager or contact our on-call microbiologist directly at 701.400.2772.** Normal Value: Not applicable Analytical Time: Preliminary results 1 day	No Charge
Corynebacterium diphtheriae **Culture** CPT CODES: 87077	Send pure isolate on Amies (with charcoal) or appropriate transport medium. Normal Value: Negative Analytical Time: 4 to 7 days	$26
Cyclospora Modified Acid Fast Stain CPT CODE: 87206	Send protofix or formalin preserved stool. Collection kits are provided by the Division of Laboratory Services- Microbiology. Normal Value: Negative Analytical Time: 1 day	$29
Cytomegalovirus Culture CPT CODE: 87252 - Tissue Cult 87253 - ID	Send appropriate specimen (such as urine) frozen on wet ice. Please contact the Division of Laboratory Services for transport and collection of other specimen types. Normal Value: Negative Analytical Time: 30 days	$41
Cytomegalovirus IgM & Total Ig IFA CPT CODE: 86644 -Total Ig 86645 - IgM	Send 2 ml acute phase serum. Normal Value: <1:8 Analytical Time: 1 day	$26
Diphtheria Reference Culture CPT CODES: 87077	Send pure isolate on Amies (with charcoal) or appropriate transport medium. Normal Value: Negative Analytical Time: 4 to 7 days	$26
Eastern Equine Encephalitis Antibody IFA	See Arboviral Encephalitis Panel	

Clinical Laboratory Testing and Fee Schedule
Set-Up Days: Monday through Friday unless otherwise indicated.

TEST	EXPLANATION	COST
Encephalitis Panel IFA or EIA CPT CODES: 86694 - Herpes 86735 - Mumps 86762 - Rubella 86765 - Rubeola 86787 - V-Z	Send 2 ml acute phase serum. Include required **patient data** on request slip. Normal Value: <1:8 or negative Analytical Time: 1 day	$130
Enterovirus Culture CPT CODE: 87252 - Tissue cult 87253 - ID	Send appropriate specimen (CSF, nasopharyngeal, skin lesion material, stool, throat). With exception of CSF, all sample types should be sent in viral transport media. CSF should be sent in sterile container. Transport at 4°C overnight. Normal Value: Negative Analytical Time: 14 days	$41
Epstein-Barr IgM and Total Ig IFA CPT CODE: 86665	Send 2 ml acute phase serum. Include required **patient data** on request slip. Normal Value: <1:8 Analytical Time: 1 day	$26
***Escherichia coli* O157:H7 Serotyping** CPT CODE: 87147 x 2	Send pure isolate in appropriate tubed medium or Amies (with charcoal) transport medium. Plates not accepted. Normal Value: Negative Analytical Time: 3 days	No Charge
Fluorescent Treponemal Antibody IgG IFA CPT CODE: 86780	Send 2 ml serum. Testing performed on serum found reactive by screening test done at the Division of Laboratory Services. Normal Value: Non-reactive Analytical Time: 1 day (Testing performed on Thursdays only) **$25 if performed on non-reactive Syphilis screen.* ***By prior arrangement only***.	*No Charge
Foodborne Pathogens Culture CPT CODES: 87070 - Pres culture 87076 - Anaerobe ID 87077 - Aerobic ID	Testing provided for outbreaks only. Contact the Division of Laboratory Services for consultation. Normal Value: Negative Analytical Time: 3 days for preliminary report, 1 week for final report* *Testing provided for outbreaks only.	*No Charge

Clinical Laboratory Testing and Fee Schedule
Set-Up Days: Monday through Friday unless otherwise indicated.

TEST	EXPLANATION	COST
***Francisella tularensis* Antibody Serum Agglutination** CPT CODE: 86000	Send 2 ml acute and convalescent (3 weeks post onset) phase sera. Normal Value: Negative Analytical Time: 1 day	$16
***Francisella tularensis* Confirmation *PCR/* Culture** CPT CODE: 87077 - Culture 87798 - PCR	Send isolate in appropriate tubed media or cut out a piece of agar with growth and send in a sterile container. Identification by means of differential media, DFA, biochemicals and molecular analysis. **Plates not accepted.** **Notify the Division of Laboratory Services and the Division of Disease Control if bioterrorism is suspected. Prior arrangements must be made before sending suspect BT specimens.** **After regular work hours, contact State Radio to speak to the case manager or contact our on-call microbiologist directly at 701.400.2772** Normal Value: Not applicable Analytical Time: Preliminary results 1 day; Confirmation 2 to 4 days	No Charge
Fungal Reference Culture CPT CODE: 87106 - Yeast 87107 - Mold	Send pure isolate in tubed media such as Sabouraud Dextrose Agar or Amies transport media. Plates not accepted. **Includes mold, yeast and actinomycete identification.** Identification by microscopy and biochemicals. Contact the Division of Laboratory Services for assistance with systemic isolates such as histoplasma, coccidioides and blastomyces. Normal Value: Not applicable Analytical Time: 2 to 6 weeks	$27
Fungal Primary Culture CPT CODES: 87101-Skin, Hair, Nails 87102 - Other Source 87103 - Blood 87106 - Yeast ID 87107 - Mold ID	Send in sterile containers or on Sabouraud Dextrose Agar. Plates will not be accepted. **Includes mold, yeast and actinomycete isolation and identification.** Consult the Division of Laboratory Services for systemic pathogens such as histoplasma, coccidioides, and blastomyces. Normal Value: No fungi isolated Analytical Time: 2 weeks for a negative culture; 2 to 6 weeks for a positive culture.	$29
Fungal Smear CPT CODE: 87205	Inoculate specimen onto slide, heat fix and send in protected container to prevent breakage. Normal Value: No fungal elements seen Analytical Time: 1 day	$7

Clinical Laboratory Testing and Fee Schedule
Set-Up Days: Monday through Friday unless otherwise indicated.

TEST	EXPLANATION	COST
Glanders - Burkholderia mallei PCR/Culture CPT CODE: 87077 - Culture 87798 - PCR	Send isolate in appropriate tubed transport media or cut out a piece of agar with growth and send in a sterile container. Identification by means of differential media, biochemicals and molecular analysis. **Plates are not accepted.** For primary isolation and PCR, the following are appropriate sources: blood, bone marrow, sputum, abscess and wound swabs and urine. Transport blood at room temperature: all others transport at 2°C to 8° C. **Notify the Division of Laboratory Services and the Division of Disease Control if bioterrorism is suspected. Prior arrangements must be made before sending suspect bioterrorism specimens.** **After normal work hours, contact State Radio to speak to the case manager or contact our on-call microbiologist directly at 701.400.2772.** Normal Value: Not applicable Analytical Time: Preliminary results 1 day; Confirmation 1 to 2 days	No Charge
***Gonorrhoeae* Culture** CPT CODES: 87070 - Presum Cult 87077 - ID	Collect from suspected site and inoculate immediately onto JEMBEC™ plate. Incubate plate in CO2 BioBag for 24 hours at 37°C before shipping. Normal Value: Negative Analytical Time: 2 days Positive results will be phoned to your facility. See "*Neisseria gonorrhoeae* Culture"	No Charge
***Haemophilus influenzae* Serotyping** CPT CODE: 87147x6	Send isolate in Amies (with charcoal) transport medium or appropriate tubed medium. Plates not accepted. Normal Value: Not applicable Analytical Time: 2 days	$41
Handling Fee CPT CODE: 99001	Handling fees are dependent on test requested. Call the Division of Laboratory Services for test specific handling fee information.	$15 ambient air $30 with ice packs
Hantavirus Antibody Enzyme Capture-IgM, ELISA-IgG CPT CODE: 87449	Send 2 ml acute phase serum along with the Hantavirus Pulmonary Syndrome case report form. Normal Value: Negative Analytical Time: Scheduled by individual case	$51

Clinical Laboratory Testing and Fee Schedule
Set-Up Days: Monday through Friday unless otherwise indicated.

TEST	EXPLANATION	COST
Hepatitis A IgM Antibody **EIA** CPT CODE: 86709	Send 2 ml acute phase serum. Include required **patient data** on request slip. Normal Value: Negative Analytical Time:1 day	$26
Hepatitis A & B Panel(Acute) **EIA** CPT CODES: 87340 -HBsAg 86705 -AntiHBc IgM 86709 -AntiHAV IgM	Send 2 ml acute phase serum. Include required **patient data** on request slip. Normal Value: Negative Analytical Time:2 days	$77
Hepatitis A, B & C Panel (Acute) **EIA** CPT CODES: 87340 -HBsAg 86705 -AntiHBc IgM 86709 -AntiHAV IgM 86803 -Anti-HCV	Send 2 ml acute phase serum. Include required **patient data** on request slip. Hepatitis C testing is performed on Wednesdays. Normal Value: Negative Analytical Time: 2 days* **See "Hepatitis C Antibody"*	$104
Hepatitis B & C Panel (Acute) **EIA** CPT CODES: 87340 - HBsAg 86705 - AntiHBc IgM 86803 - Anti-HCV	Send 2 ml acute phase serum. Include required **patient data** on request slip. Hepatitis C testing is performed weekly on Wednesdays. Normal Value: Negative Analytical Time: 1 day* **See "Hepatitis C Antibody"*	$78
Hepatitis B Core Antibody, Total Ig **EIA** CPT CODE: 86704 - Total Ig	Send 2 ml serum. Include required **patient data** on request slip. Normal Value: Negative Analytical Time:1 day	$26
Hepatitis B Core Antibody, IgM **EIA** CPT CODE: 86705	Send 2 ml acute phase serum. Include required **patient data** on request slip. Normal Value: Negative Analytical Time:1 day	$26
Hepatitis B Surface Antibody Immune Status (Anti-HBs) **EIA** CPT CODE: 86706	Send 2 ml serum. Anti-HBs testing is performed on Fridays. Normal Value: Positive Analytical Time: Test performed weekly on Fridays	$26

Clinical Laboratory Testing and Fee Schedule
Set-Up Days: Monday through Friday unless otherwise indicated.

TEST	EXPLANATION	COST
Hepatitis B Surface Antigen & Hepatitis B Core Antibody EIA CPT CODES: 87340 - HbsAg 86704 - Anti-HBc	Send 2 ml acute phase serum. Include required **patient data** on request slip. Normal Value: Negative Analytical Time:1 day	$52
Hepatitis B Surface Antigen EIA CPT CODE: 87340	Send 2 ml acute phase serum. Include required **patient data** on request slip. Prenatal HBsAg testing is free of charge. Normal Value: Negative Analytical Time: 1 day **No charge for prenatal*	$26*
Hepatitis C Antibody, IgG (Anti-HCV) EIA CPT CODE: 86803	Send 2 ml of serum. Include required **patient data** on request slip. Normal Value: Negative Analytical Time: Anti-HCV testing is performed weekly on Wednesdays	$26
Herpes Simplex Virus Antibody IgM and Total Ig IFA CPT CODE: 86694	Send 2 ml acute phase serum. Include required **patient data** on request slip. Normal Value: <1:8 Analytical Time: 1 day	$26
Herpes Simplex Virus Culture CPT CODE: 87252 - Tissue Cult 87253 - ID	Send appropriate specimen (genital, urethral, oral, tissue, vesicle, CSF). With exception of CSF, all sample types should be sent in viral transport media. CSF should be sent in sterile container. Transport at 4°C. Normal Value: Negative Analytical Time:14 days	$41
HIV-I Antibody IFA (Confirmation/ Supplemental Test) CPT CODE: 86689	Send 1 ml serum. All HIV testing should be requested on the HIV test request form. Normal Value: Negative Analytical Time: 1 day	No Charge

Clinical Laboratory Testing and Fee Schedule
Set-Up Days: Monday through Friday unless otherwise indicated.

TEST	EXPLANATION	COST
HIV-I/2 Antibody EIA (Screening Test) CPT CODE: 86703 - Screen 86689 - Confirmation	Send 1 ml serum. All HIV testing should be requested on the HIV test request form. Confirmatory testing will be performed on all positive specimens. HIV1 is confirmed by IFA. HIV2 is confirmed by the Multi Spot HIV2 rapid assay. Normal Value: Negative Analytical Time: 1 to 2 days	No Charge
HIV-I Oral Fluid Antibody EIA (Screening Test) CPT CODE: 86701	Collect oral fluid specimens using the collection system provided by the North Dakota Department of Health; Division of Disease Control. All HIV testing should be requested on the HIV test request form. Oral fluid specimens may be collected from patients age 13 and older. Any oral fluid testing positive for antibody to HIV-1 must be confirmed by a follow-up serum based test. Normal Value: Negative Analytical Time: 1 to 2 days	No Charge
Influenza Virus Type A & B Culture CPT CODE: 87252 87253x3	Send respiratory specimens in viral transport media. Ship on ice packs or frozen. Viral transport media is available by contacting the Division of Laboratory Services. Normal Value: Negative Analytical Time: 14 days	$41
Influenza Virus Type A & B PCR and Subtype Confirmation CPT CODE: 87798 87798 x 7	Send nasopharyngeal swab in viral transport media. Ship on ice packs or frozen. Include required **patient data** on request slip. Sub-typing will include: A, B, H1, H3, H5, 2009 A, 2009 H1 Normal Value: Negative Influenza A Negative Influenza B Analytical Time: 2 days	No Charge
***Legionella pneumophila* (Legionnaires' Disease) Total Ig Antibody IFA** CPT CODE: 86713	Send 2 ml acute and late convalescent (3 to 6 weeks after onset) phase sera. Include required **patient data** on request slip. Normal Value: Less than 4-fold rise in titer between acute and convalescent sera. Analytical Time: 1 day	$26

Clinical Laboratory Testing and Fee Schedule
Set-Up Days: Monday through Friday unless otherwise indicated.

TEST	EXPLANATION	COST
Legionella pneumophila **Culture and Direct Fluorescent Antigen** CPT CODES: 87081 - Presum Cult 87140 - Culture ID 87278 - DFA	Collect appropriate specimen (bronchial, lung, sputum, tissue) and send in sterile container. Normal Value: Negative Analytical Time: 7 days for culture exam, 1 day for DFA Positive results will be phoned to your facility.	$36
Lyme Disease (*Borrelia burgdorferi*) Antibody, Total Ig ELISA CPT CODE: 86618	Send 2 ml of serum and clinical history including tick exposure. Include required **patient data** on request slip. Normal Value: Negative Analytical Time: 2 days (In season: April 1to September 30)	$76
Malaria Smears Parasites, Blood Giemsa Stain CPT CODE: 87207 -Thin 87015 -Thick	At least two thin blood films and two thick films made from fresh blood are preferred. Blood containing anticoagulant (EDTA) can be used if films are prepared within one hour. Air dry and send in protected container to prevent breakage. Negative smear results should be repeated every 12 to 24 hours for three consecutive days. Include EDTA whole blood and serum tubes for possible referral. Normal Value: No parasites found Analytical Time: 1 day See illustration in appendix for guidance on preparing thick and thin smears.	$29
Measles (Rubeola) Virus Antibody, IgM and Total Ig IFA CPT CODE: 86765	Send 2 ml acute phase serum. Include required **patient data** (date of onset, symptoms, vaccine history) on request slip. Normal Value: <1:8 Analytical Time: 1 day	$26
Measles Virus (Rubeola) Culture CPT CODES: 87252 - Tissue Cult 87253 - ID	Send appropriate specimen (throat, naso-pharyngeal, urine). With exception of urine, all sample types should be sent in viral transport media. Urine should be sent in sterile container. Transport at 4°C overnight. Normal Value: Negative Analytical Time: 14 days	$41

TEST	EXPLANATION	COST
Melioidosis - Burkholderia psuedomallei PCR/Culture CPT CODE: 87077 - Culture 87798 - PCR	Send isolate in appropriate tubed transport media or cut out a piece of agar with growth and send in a sterile container. Identification by means of differential media, biochemicals and molecular analysis. **Plates are not accepted.** For primary isolation and PCR, the following are appropriate sources: blood, bone marrow, sputum, abscess and wound swabs and urine. Transport blood at room temperature, all others transport at 2°C to 8° C. **Notify the Division of Laboratory Services and the Division of Disease Control if bioterrorism is suspected. Prior arrangements must be made before sending suspect bioterrorism specimens.** **After normal work hours, contact State Radio to speak to the case manager or contact our on-call microbiologist directly at 701.400.2772.** Normal Value: Not applicable Analytical Time: Preliminary results 1 day; Confirmation 1 to 2 days	No Charge
Methicillin/ Vancomycin Resistant *Staphylococcus aureus* AST	See Antimicrobial Susceptibility Testing	
MIC	See Antimicrobial Susceptibility Testing	
Microsporidia Identification Giemsa Stain CPT CODE: 87207	Send formalin preserved stool or duodenal aspirates. Fresh stool may be requested for PCR testing referrals. Fresh stool must be kept refrigerated. Normal Value: Negative Analytical Time: 1 day	$29
Mumps Virus Antibody IgM and Total Ig IFA CPT CODE: 86735	Send 2 ml acute phase serum. Include required **patient data** (date of onset, symptoms, vaccine history) on request slip. Normal Value: <1:8 Analytical Time: 1 day	$26
Mumps Virus Culture CPT CODE: 87252 - Culture 87253 - ID	Send an appropriate specimen (CSF, saliva, urine) in sterile container; send respiratory specimens in viral transport media. Transport at 4°C. Normal Value: Negative Analytical Time: 14 days	$41

Clinical Laboratory Testing and Fee Schedule
Set-Up Days: Monday through Friday unless otherwise indicated.

TEST	EXPLANATION	COST
Mycobacteria Primary Culture CPT CODES: 87206 - Direct smear 87015- Concentration 87116 - Presum Cult 87118 - Biochem ID 87149x3-DNA probes *M. tb complex* *M. avium complex* *M. gordonae*	Collect in sterile container and send in appropriate shipping container **under refrigeration temperature.** Contact the Division of Laboratory Services for collection and mailing kit. Refer to collection, handling and source specific instructions in Appendix B (Includes acid-fast smear, culture and identification). Normal Value for AFB Culture: No mycobacteria isolated (Positive mycobacteria will be identified). Normal Value for AFB Smear: No AFB seen Analytical Time: 2 to 8 weeks *Positive results will be phoned to your facility.	No Charge
Mycobacteria Reference Culture CPT CODES: 87118 - Biochem ID 87149x3-DNA probes *M. tb complex* *M. avium complex* *M. gordonae*	Send isolate on tubed solid media such as L-J slants, 7H-10 slants, etc. Plates or liquid media not accepted. Normal Value: Not applicable Analytical Time: 2 to 6 weeks	No Charge
Mycobacteria Susceptibility CPT CODE:	**Isolates for susceptibility testing will be referred to a reference laboratory**. Susceptibility testing on M.tuberculosis will be submitted on all isolates from patients considered to be a new case as part of the initial culture procedure. Results will be reported to the Division of Laboratory Services as soon as available. Normal Value: Susceptible Analytical Time: Not applicable Susceptibility testing on mycobacteria isolates other than M. tuberculosis will be submitted to a reference laboratory upon request. Reference laboratory will directly bill and send results to the submitting facility. Normal Value: Susceptible Analytical Time: Not applicable	No Charge

Clinical Laboratory Testing and Fee Schedule
Set-Up Days: Monday through Friday unless otherwise indicated.

TEST	EXPLANATION	COST
Mycobacterium tuberculosis **Nucleic Acid Amplified Test** CPT CODE: 87556	The Amplified Mycobacterium Tuberculosis Direct Test (MTD) is a target-amplified nucleic acid probe test for the in vitro diagnostic detection of M. tuberculosis complex. The MTD test only is intended for use on specimens from patients showing signs and symptoms consistent with active pulmonary tuberculosis. **The MTD test must be performed in conjunction with mycobacterial culture.** Respiratory specimens are acceptable for testing including sputum, bronchial specimens or tracheal aspirates. Specimens that are grossly bloody will not be tested. Collect as for Primary Mycobacteria Culture. Assay performed at the request of the physician on symptomatic patients prior to treatment. Normal Value: Negative for M.tb rRNA Analytical Time: Test performed as needed. *Positive results will be phoned to your facility.	No Charge
Mycobacterium tuberculosis **Quantiferon Test** CPT CODE: 86480	Cell mediated immunity measurement of gamma interferon antigen response to *M. tuberculosis.* **This testing is performed by special arrangement only**. **Please call the Division of Laboratory Services prior to collecting samples.** Collect a minimum of 5ml lithium heparin blood which must be received at the Division of Laboratory Services within 12 hours of collection. Specimen must remain at room temperature during transport. Normal Value: Negative Analytic Time: As agreed to by special arrangement. Samples accepted Monday through Thursday. Assays are run on Wednesdays.	$100
Mycoplasma pneumoniae **Antibody, IgM IFA** CPT CODE: 86738	Send 2 ml acute phase serum. Include required **patient data** on request slip. Normal Value: <1:64 Analytical Time: 1 day	$26
Neisseria gonorrhoeae **Culture** CPT CODES: 87070 - Presum Cult 87077 - ID	Collect from suspected site and inoculate immediately onto JEMBEC™ plate. If JEMBEC plate is not used, send swab of collection site in Amies (with charcoal) transport media. Incubate plate in CO2 BioBag for 24 hours at 37°C before shipping. Normal Value: Negative Analytical Time: 2 days Positive results will be phoned to your facility.	No Charge

Clinical Laboratory Testing and Fee Schedule
Set-Up Days: Monday through Friday unless otherwise indicated.

TEST	EXPLANATION	COST
Neisseria gonorrhoeae **Nucleic Acid Amplification Test**	Can only be ordered as part of a dual test for *Chlamydia trachomatis* and *Neisseria gonorrhoeae.* See: "*Chlamydia trachomatis* and *Neisseria gonorrhoeae* nucleic acid amplification test"	
Neisseria meningitidis **Serogrouping** CPT CODE: 87147x6	Send pure isolate in appropriate tubed transport or in Amies transport medium. Plates not accepted. Normal Value: Not applicable Analytical Time: 2 days	$41
Parainfluenza Virus Types 1, 2, 3 Culture CPT CODE: 87252 - Tissue Cult 87253 - ID	Send respiratory specimen in viral transport media at 4°C. Collect from infants age 2 years and youger. Normal Value: Negative Analytical Time: 14 days	$41
Parasites, Blood Giemsa Stain CPT CODE: 87207 - Thin 87015 - Thick	At least two thin blood films and two thick films made from fresh blood are preferred. Blood containing anticoagulant (EDTA) can be used if films are prepared within one hour. Air dry and send in protected container to prevent breakage. Negative smear results should be repeated every 12 to 24 hours for three consecutive days. Include EDTA whole blood and serum tubes for possible referral. Pertinent travel history is requested. Normal Value: No parasites found Analytical Time: 1 day See illustration in appendix for guidance on preparing thick and thin smears.	$29
Parasites, Stool CPT CODES: 87177 - Conc. and ID 87207 - Trichrome 87206 - Acid Fast	Send stool specimen in preservative. Includes wet mount, trichrome stain and acid-fast stain (for Cryptosporidium, Cyclospora and Isospora Belli). Trichrome stain will not be performed on specimens preserved with formalin. Contact the Division of Laboratory Services for collection kits. Normal Value: No parasites found. If positive, organism will be identified. Analytical Time:1 day	$29

TEST	EXPLANATION	COST
Pertussis PCR/Culture CPT CODE: 87798 - PCR 87070 - Culture 87077 - ID	Collect duplicate nasopharyngeal specimens on Dacron swabs. Place one in a Regan Lowe transport for isolate recovery and the second swab into the plastic transport tube for nucleic acid amplification. Both collection devices must be sent together. See illustration in appendix B for guidance on specimen collection. Contact the Division of Laboratory Services for transport kits. Include patient symptoms and vaccine history. Normal Value: Negative Analytical Time: 2 days See Also: "*Bordetella pertussis/parapertussis* Nucleic Acid Amplified Test"	$51
Plague(*Yersinia pestis)* Confirmation PCR/Culture CPT CODES: 87077 - Culture 87798 - PCR	Send isolate in appropriate tubed media or cut out a piece of agar with growth and send in a sterile container. Identification by means of differential media, DFA, biochemicals and molecular analysis. **Plates not accepted.** **Notify the Division of Laboratory Services and the North Dakota Department of Health, Division of Disease Control if bioterrorism is suspected. Prior arrangements must be made before sending suspect bioterrorism specimens.** **After regular work hours, contact State Radio to speak to the case manager or contact our on-call microbiologist directly at 701.400.2772.** Normal Value: Not applicable Analytical Time: Preliminary results 1 day; Confirmation 3 to 5 days*:*	No Charge
Premarital (Out-of-State)	Testing reserved for premarital screening of individuals applying for a marriage license in states requiring the test. Send 2 ml serum. Normal Value: Specific to tests required Analytical Time: 1 day	No Charge
Prenatal Hepatitis B Surface Antigen EIA CPT CODE: 87340	Send 2 ml serum. Prenatal HBsAg testing is free of charge. Normal Value: Negative Analytical Time: 1 day See Also: "Hepatitis B Surface Antigen"	No Charge

Clinical Laboratory Testing and Fee Schedule
Set-Up Days: Monday through Friday unless otherwise indicated.

TEST	EXPLANATION	COST
PVA Slides **Trichrome Stain** CPT CODE: 87207 - Trichrome	Send stool specimen in preservative. Trichrome stain will not be performed on specimens preserved with formalin. Contact the Division of Laboratory Services for collection kits. Normal Value: No parasites found. If positive, organism will be identified. Analytical Time:1 day See Also: "Parasites, Stool"	$29
Quantiferon Test ***(Mycobacterium tuberculosis)*** CPT CODE: 86480	Cell mediated immunity measurement of gamma interferon antigen response to *M. tuberculosis.* **This testing is performed by special arrangement only**. **Please call the Division of Laboratory Services for a collection kit.** See Appendix B for specimen collection, processing and transport instructions. Normal Value: Negative Analytic Time: As agreed to by special arrangement. Samples accepted Monday through Thursday. Assays are run on Wednesdays.	$100
Rabies Direct Antigen Detection **DFA** (Human exposure only)	Send appropriate brain tissue at 4°C. Contact the Division of Laboratory Services for assistance. Please call for consultation if animal brain cannot be removed prior to submission. Normal Value: Negative Analytical Time: 1 day *No charge for tissue analysis from animals involving North Dakota residents. $50.00 charge if client is not a North Dakota resident. Positive results will be phoned to submitter.	$50*
Reference Bacteria Culture CPT CODE: 87077 - Aerobic 87077 - Enteric 87076 - Anaerobic	Send pure isolate in appropriate tubed transport medium or Amies transport medium. Plates not accepted. Normal Value: Not applicable Analytical Time: 7 days See Also: " Bacterial Culture Aerobic, Reference ", " Bacterial Culture Anaerobic, Reference" or "Bacterial Culture Enteric, Reference"	$26
Reference Culture with MIC Susceptibility Testing See Antimicrobial Susceptibility Testing – Reference Bacteria	Send pure isolate in appropriate tubed medium. Plates are not accepted. Normal Value: Susceptible, intermediate or resistant to panel of antimicrobials. Analytical Time: 2 days	$26

Clinical Laboratory Testing and Fee Schedule
Set-Up Days: Monday through Friday unless otherwise indicated.

TEST	EXPLANATION	COST
Respiratory Syncytial Virus (RSV) IgM and Total Ig Antibody IFA CPT CODE: 86756	Send 2 ml acute phase sera. Collect from infants age 2 years and younger. Include required **patient data** on request slip. Normal Value: <1:8 Analytical Time: 1 day	$26
Respiratory Syncytial Virus (RSV) Culture CPT CODE: 87252 - Culture 87253 - ID	Send respiratory specimens in viral transport media at 4°C. Collect from infants age 2 years and younger. Normal Value: Negative Analytical Time: 14 days	$41
Ricin Toxin TRF (Environmental BT Specimens Only)	Detection of Ricin toxin by Time Resolved Immunoflourescence. Used for testing environmental samples: Liquid, soil, powder, wipes, swabs, paper, plant material and food samples are acceptable. **Notify the Division of Laboratory Services and the Division of Disease Control if bioterrorism is suspected.** **After normal work hours, contact state radio to speak to the case manager or contact our on-call microbiologist at 701.400.2772.** Normal Value: Negative Analytical Time: 1 day	No Charge
Rocky Mountain Spotted Fever Antibody IFA CPT CODE: 86757	Send 2 ml acute and convalescent (3 weeks post onset) phase sera. Include required **patient data** on request slip. Normal Value: <1:64 or < four fold rise in titer between acute and convalescent sera. Analytical Time: 1 day (Seasonal)	$26
RPR Syphilis Screen Rapid Plasma Reagin CPT CODE: 86592	By special arrangement only. Send 2 ml serum. Normal Value: Nonreactive Analytical Time: 1 day	No Charge
Rubella (German Measles) Virus IgM Antibody EIA CPT CODE: 86762	Send 2 ml acute phase serum. Include required **patient data** (date of onset, symptoms, vaccine history) on request slip. Normal Value: Negative Analytical Time: 1 day	$26

Clinical Laboratory Testing and Fee Schedule
Set-Up Days: Monday through Friday unless otherwise indicated.

TEST	EXPLANATION	COST
Rubella Virus Immune Status IgG/IgM Antibody Latex Agglutination CPT CODE: 86318	Testing reserved for premarital screening of individuals applying for a marriage license in states requiring the test (out-of-state premaritals only). Send 2 ml serum. Normal Value: Immune Analytical Time: 1 day	No Charge
Rubeola (Measles) Virus Antibody, IgM and Total Ig IFA CPT CODE: 86765	Send 2 ml acute phase serum. Include required **patient data** (date of onset, symptoms, vaccine history) on request slip. Normal Value: <1:8 Analytical Time: 1 day	$26
Staphylococcus enterotoxin B TRF	Contact the Division of Laboratory Services for specific recommendation regarding collection and transportation. This testing is appropriate for non-clinical samples only. **Notify the Division of Laboratory Services and the Division of Disease Control if bioterrorism is suspected. Prior arrangements must be made before sending suspect bioterrorism specimens.** **After normal work hours, contact State Radio to speak to the case manager or contact our on-call microbiologist directly at 701.400.2772**. Normal Value: Not applicable Analytical Time: Preliminary results 1 day	No Charge
St. Louis Encephalitis Antibody IFA	See Arboviral Encephalitis Panel	
Salmonella Serotyping CPT CODE: 87147 - 8 antisera (minimum)	Send pure isolate in appropriate tubed transport medium. Normal Value: Not applicable Analytical Time: 4 days	No Charge
Shigella Serotyping CPT CODE: 87147x5	Send pure isolate in appropriate tubed transport medium. Normal Value: Not applicable Analytical Time: 2 days	No Charge

Clinical Laboratory Testing and Fee Schedule
Set-Up Days: Monday through Friday unless otherwise indicated.

TEST	EXPLANATION	COST
Smallpox PCR CPT CODE: 87798	Infectious Substance Shippers with collection/transportation directions have been provided to all Level A sentinel laboratories. **Contact the Division of Laboratory Services for consultation regarding sample collection/shipment.** Specimens to collect will include: Fluid and cells from two or more unroofed vesicles/pustules; A minimum of four touch preparation slides; Two to four non-cotton swabs in viral transport media. **The smallpox risk level** should be clearly noted on the laboratory requisition form accompanying any specimen labeled as "vesicle," "blister," "rash," or otherwise suggestive of acute/generalized vesicular or pustular rash illness. Call the North Dakota Department of Health if you suspect smallpox, an adverse reaction to smallpox vaccination or require consultation on an unusual or pustular rash illness. **Notify the Division of Laboratory Services and the Division of Disease Control if bioterrorism is suspected. Prior arrangements must be made before sending suspect bioterrorism specimens. After regular work hours, contact State Radio to speak to the case manager or contact the on-call microbiologist at 701.400.2772.** Normal Value: Negative Analytical Time: Preliminary results within 1 day	No Charge
Streptococcus Group B Confirmation Latex Agglutination CPT CODE: 86403	Send pure isolate in appropriate tubed transport medium. Normal Value: Positive Analytical Time: 2 days	No Charge
***Streptococcus pneumoniae* Drug Susceptibility Testing**	See antimicrobial Susceptibility Testing	
Streptococcus Serological Grouping Latex Agglutination CPT CODE: 87147 x 5	Send pure isolate in Amies (with charcoal) transport medium. Normal Value: Group designation Analytical Time: 2 days	$31
Syphilis Confirmation Fluorescent Treponemal Antibody CPT CODE: 86780	Send 2 ml serum. Testing performed on Thursdays. Normal Value: Non-reactive Analytical Time: 1 day *FTA performed on a non-reactive RPR will be charged $25.00.	*No Charge

Clinical Laboratory Testing and Fee Schedule
Set-Up Days: Monday through Friday unless otherwise indicated.

TEST	EXPLANATION	COST
Syphilis Screen, (RPR) CPT CODE: 86592	**By special arrangement only**. Send 2 ml serum. Normal Value: Non-reactive Analytical Time: 1 day	No Charge
TORCH Antibodies, IgM and Total Ig IFA/EIA CPT CODE: 86777 - Toxo IFA 86762 - Rubella EIA 86645 - CMV IFA 86694 - Herpes IFA	Send 2 ml acute phase serum. Include required **patient data** (date of onset, symptoms, vaccine history) on request slip. Reserved for infants younger than six months or by special arrangement only. Tests can be ordered individually. Normal Value: Toxoplasma <1:16; Rubella negative; CMV and Herpes <1:8 Analytical Time: 1 day Tests can be ordered individually (see alphabetical listings).	$104
***Toxoplasma gondii* Antibody, IgM and Total Ig IFA** CPT CODE: 86777 - Total Ig 86778 - IgM	Send 2 ml acute phase serum. Include required **patient data** on request slip. Normal Value: <1:16 Analytical Time: 1 day	$26
Tuberculosis (TB) Culture CPT CODES: 87206 - Direct smear 87015 - Concentration 87116 - Presum Cult 87118 - Biochem ID 87149x3-DNA probes M. tb complex M. avium complex M. gordonae	Collect in sterile container and send in appropriate shipping container **under refrigeration temperature.** Contact the Division of Laboratory Services for collection and mailing kit. Refer to collection, handling and source specific instructions in Appendix B. **(Includes acid-fast smear, culture and identification)** Normal Value: No mycobacteria isolated. (Positive mycobacteria will be identified) Analytical Time: 2 to 8 weeks *Positive results will be phoned to your facility.	No Charge
Tularemia (Francisella) Antibody Serum Agglutination CPT CODE: 86000	Send 2 ml acute and convalescent (3 weeks post onset) phase sera. Normal Value: Negative Analytical Time: 1 day	$16

TEST	EXPLANATION	COST
Tularemia (Francisella) Confirmation PCR/Culture CPT CODE: 87077 - Culture 87798 - PCR	Send isolate in appropriate tubed media or cut out a piece of agar with growth and send in a sterile container. Identification by means of differential media, DFA, biochemicals and molecular analysis. **Plates not accepted.** For primary isolation and PCR collect blood, biopsied tissue or ulcer scraping. Blood should be transported at room temperature. Transport tissue and ulcer samples at 2°C to 8°C. **Notify the Division of Laboratory Services and the Division of Disease Control if bioterrorism is suspected. Prior arrangements must be made before sending suspect bioterrorism specimens.** **After regular work hours, contact State Radio to speak to the case manager or contact our on-call microbiologist directly at 701.400.2772.** Normal Value: Not applicable Analytical Time: Preliminary results 1 day; Confirmation 2 to 4 days	No Charge
Typhus Fever Group IFA CPT CODE: 86757	Send 2 ml acute and convalescent (3 weeks post onset) phase sera. Include required **patient data** on request slip. Normal Value: <1:64 or < four-fold rise in titer between acute and convalescent sera. Analytic Time: 1 day; Seasonal testing only.	$26
Vaccinia PCR CPT CODE: 87798	Infectious Substance Shippers with collection/transportation directions have been provided to all Level A sentinel laboratories. **Contact the Division of Laboratory Services for consultation regarding sample collection/shipment.** Specimens to collect will include: Fluid and cells from two or more unroofed vesicles/pustules; A minimum of four touch preparation slides; Two to four non-cotton swabs in viral transport media. **The smallpox risk level** should be clearly noted on the laboratory requisition form accompanying any specimen labeled as “vesicle,” “blister,” “rash,” or otherwise suggestive of acute/generalized vesicular or pustular rash illness. Call the North Dakota Department of Health if you suspect smallpox, an adverse reaction to smallpox vaccination or require consultation on an unusual or pustular rash illness. **Notify the Division of Laboratory Services and the Division of Disease Control if bioterrorism is suspected. Prior arrangements must be made before sending suspect bioterrorism specimens. After regular work hours, contact State Radio to speak to the case manager or contact the on-call microbiologist at 701.400.2772.** Normal Value: Negative Analytical Time: Preliminary results within 1 day	No Charge

Clinical Laboratory Testing and Fee Schedule
Set-Up Days: Monday through Friday unless otherwise indicated.

TEST	EXPLANATION	COST
Varicella-Zoster Virus Antibody, IgM and Total Ig IFA CPT CODE: 86787	Send 2 ml acute phase serum. Include required **patient data** (date of onset, symptoms, vaccine history) on request slip. Normal Value: <1:8 Analytical Time: 1 day	$26
Varicella-Zoster Virus Antibody, IgG IFA CPT CODE: 86787	Send 2 ml serum. Testing performed on Fridays. Normal Value: >1:16 Analytical Time: Test performed on Fridays	$26
VDRL(Syphilis screen) Slide Flocculation CPT CODE: 86592	Send 1 ml spinal fluid. Testing performed on Fridays. Normal Value: Non-reactive Analytical Time: Weekly on Fridays.	$11
***Vibrio cholerae* Agglutination** CPT CODE: 87147x3	Send pure isolate in appropriate tubed medium or Amies transport medium. Plates not accepted. Referred to the Centers for Disease Control and Prevention. Normal Value: Not applicable Analytical Time: CDC dependent	No Charge
Vibrio Culture CPT CODES: 87046 - Presum Cult 87077 - ID	Send stool samples or rectal swabs in appropriate transport media from acute cases. Normal Value: Negative Analytical Time: 3 days	$26
Viral Culture CPT CODES: 87252 - Tissue Cult 87253 - ID	Send appropriate specimen (see specific culture type for more information ie: RSV culture, etc.), patient history, and clinical information indicating which specific virus is suspected. Normal Value: Negative Analytical Time: 14 days	$41
Western Equine Encephalitis Antibody IFA	See "Arboviral Encephalitis Panel"	

Clinical Laboratory Testing and Fee Schedule
Set-Up Days: Monday through Friday unless otherwise indicated.

TEST	EXPLANATION	COST
West Nile Virus Antibody, IgM EIA CPT CODE: 86788	Send 2 ml late acute phase serum. Include required **patient data** on request slip. Normal Value: Negative Analytical Time: 2 days (In season: June 1 – September 30) *Please contact the Division of Laboratory Services to make arrangements for out-of-season testing. A $60 charge applies if performed out-of-season.	$60* out-of-season No Charge In-Season
Whooping Cough *Bordetella pertussis* PCR/Culture CPT CODE: 87798 - PCR 87070 - Culture 87077 - ID	Collect duplicate nasopharyngeal specimens on Dacron swabs. Place one in a Regan Lowe transport for isolate recovery and the second swab into the plastic transport tube for nucleic acid amplification. Both collection devices must be sent together. See specimen collection directions in appendix B of this document. Contact the Division of Laboratory Services for transport kits. Include patient symptoms and vaccine history. Normal Value: Negative Analytical Time: 2 days *Positive results will be phoned to your facility.	$51
***Yersinia pestis* (Plague)Confirmation PCR/Culture** CPT CODES: 87077 - Culture 87798 - PCR	Send isolate in appropriate tubed media or cut out a piece of agar with growth and send in a sterile container. Identification by means of differential media, DFA, biochemicals and molecular analysis. **Plates not accepted.** For primary isolation and PCR collect blood , tissue aspirate or biopsied tissue. Transport blood at room temperature. Transport tissue samples at 2°C to 8°C. **Notify the Division of Laboratory Service and the Division of Disease Control if bioterrorism is suspected. Prior arrangements must be made before sending suspect bioterrorism specimens.** **After regular work hours, contact State Radio to speak to the case manager or contact our on-call microbiologist directly at 701.400.2772.** Normal Value: Not applicable Analytical Time: Preliminary results 1 day; Confirmation 3 to 5 days*:*	No Charge

SPECIFIC TESTS NOT IN THIS LISTING MAY BE AVAILABLE
CONSULT THE DIVISION OF LABORATORY SERVICES

PHONE: 701.328.6272

FOR THE MOST ACCURATE CPT CODE ASSIGNMENT, PLEASE REFER TO THE 2011 CURRENT PROCEDURAL TERMINOLOGY MANUAL.

Index

Index

Index

Index

Appendix A
IATA Guidance Document for Infectious Substances

Guidance Document

Infectious Substances

Note: 1. *The following Guidance Document was developed by the ICAO DGP. The original ICAO document reflects references to the ICAO Technical Instructions these have been amended to reflect the references applicable to the 51st Edition (2010) of the IATA Dangerous Goods Regulations (DGR).*

Introduction

Provisions applicable to the classification of Infectious Substances were extensively revised and then published in the 13th and 14th revised editions of the UN Recommendation on the Transport of Dangerous Goods (Model Regulations). The revised provisions were developed in coordination with experts from the World Health Organization (WHO) and other technical experts in the field of transport, packaging and health.

The purpose of this document is to provide guidance for complying with provisions applicable to the transport by air of infectious substances as set out in the DGR. Specifically the document provides guidance on:

- Definitions;
- Classification;
- Exceptions;
- Packaging Provisions for Infectious Substances, affecting humans or animals, UN 2814 or UN 2900;
- Packaging Provisions for Biological Substances, Category B, UN 3373;
- Packaging for Exempt Patient Specimens;
- Prohibitions;
- Passenger Provisions;
- Training and Emergency Response.

Definitions

Infectious substances are substances which are known to contain, or are reasonably expected to contain, pathogens. Pathogens are defined as micro-organisms (including bacteria, viruses, rickettsiae, parasites, fungi) and other agents such as prions, which can cause disease in humans or animals.

Cultures are the result of a process by which pathogens are intentionally propagated. This definition does not include human or animal patient specimens.

Patient specimens are those collected directly from humans or animals, including, but not limited to, excreta, secreta, blood and its components, tissue and tissue fluid swabs, and body parts being transported for purposes such as research, diagnosis, investigational activities, disease treatment and prevention.

Medical or clinical wastes are wastes derived from the medical treatment

of animals or humans or from bio-research.

Classification

For transport purposes the classification of infectious substances according to risk groups was removed from the DGR in the 46th edition (2005).

Infectious substances are now classified either as Category A or Category B.

There is no direct relationship between Risk Groups and categories A and B.

Category A Infectious Substances are infectious substances in a form that, when exposure to it occurs, is capable of causing permanent disability, life-threatening or fatal disease in otherwise healthy humans or animals. They are assigned the following UN numbers and proper shipping names:

. • UN 2814 – **Infectious Substance, affecting humans**; or
. • UN 2900 – **Infectious Substance, affecting animals** *only*.

Assignment to UN 2814 or UN 2900 is to be based on the known medical history and symptoms of the source human or animal, endemic local conditions, or professional judgment concerning individual circumstances of the source human or animal. If there is any doubt as to whether or not a pathogen falls within this category it must be transported as a Category A Infectious Substance.

Clinical wastes containing Category A infectious substances must be assigned to UN 2814 or UN 2900, as appropriate.

To assist in the assignment of an infectious substance into Category A see the Indicative List provided in Table 3.6.D in the DGR. That list, however is not exhaustive. Infectious substances, including new or emerging pathogens, which do not appear in the table but which meet the same criteria must be assigned to Category A.

Category B Infectious Substances are Infectious Substances that do not meet the criteria for inclusion in Category A. They are assigned the following UN number and proper shipping name:

• UN 3373 – **Biological Substance, Category B**

Clinical wastes containing Category B infectious substances must be assigned to UN 3291.

Further assistance on the classification of infectious substances can be obtained from the national health or veterinary authority. (See Annex 1 for Classification Scenarios and Annex 2 for a Classification Flowchart.)

Exceptions

. • Substances, which do not contain infectious substances, or substances, which are unlikely to cause disease in humans or animals, are not subject to the IATA DGR unless they meet the criteria for inclusion in another class;
. • Substances containing micro-organisms, which are non-pathogenic to humans or animals are not subject to the DGR unless they meet the criteria for inclusion in another class;
. • Substances in a form that any present pathogens have been neutralized or inactivated such that they no longer pose a health risk are not subject to the DGR unless they meet the criteria for inclusion in another class;

. • Environmental samples (including food and water samples), which are not considered to pose a significant risk of infection, are not subject to the DGR unless they meet the criteria for inclusion in another class;
. • Dried blood spots, collected by applying a drop of blood onto absorbent material, or faecal occult blood screening tests and blood or blood components which have been collected for the purposes of transfusion or for the preparation of blood products to be used for transfusion or transplantation and any tissues or organs intended for use in transplantation are not subject to the DGR;
. • Patient specimens for which there is minimal likelihood that pathogens are present are not subject to the DGR if the specimen is transported in Packaging for Exempt Patient Specimens (**see below for the Packaging requirements for Exempt Patient Specimens**).

Note:

In determining whether a patient specimen has a minimal likelihood that pathogens are present, an element of professional judgment is required to determine if a substance is exempt under this paragraph. That judgment should be based on the known medical history, symptoms and individual circumstances of the source, human or animal, and endemic local conditions. Examples of specimens which may be transported under this paragraph include the blood or urine tests to monitor cholesterol levels, blood glucose levels, hormone levels, or prostate specific antigens (PSA); tests required to monitor organ function such as heart, liver or kidney function for humans or animals with non-infectious diseases, or therapeutic drug monitoring; tests conducted for insurance or employment purposes and are intended presence of drugs or alcohol; pregnancy tests; biopsies to detect cancer; and antibody detection in humans or animals in the absence of any concern for infection (e.g. evaluation of vaccine induced immunity, diagnosis of autoimmune disease, etc.).

Packaging for Exempt Patient Specimens

Patient specimens (human or animal) that have a minimal likelihood of containing pathogens must be packaged appropriately to further minimize the risk of exposure. While these specimens have a minimal likelihood of containing infectious pathogens in a form that would cause infection, appropriate packaging further minimizes the risk of exposure. Exempt human or animal specimens must be packaged and marked according to the following:

(i) a leak-proof primary receptacle(s);
(ii) a leak-proof secondary packaging; and

(iii) an outer packaging of adequate strength for its capacity, mass and intended use, and with at least one surface having minimum dimensions of 100 mm × 100 mm;

For liquids, absorbent material in sufficient quantity to absorb the entire contents must be placed between the primary receptacle(s) and the secondary packaging so that, during transport, any release or leak of a liquid substance will not reach the outer packaging and will not compromise the integrity of the cushioning material. When multiple fragile primary receptacles are placed in a single secondary packaging, they must be either individually wrapped or separated to prevent contact between them. If such a packaging is used it must be marked "Exempt human specimen" or "Exempt animal specimen", as appropriate. (*See Annex 5 for a graphic depiction of an Exempt Patient Specimen Packaging*)

If other dangerous goods are present with patient specimens the relevant provisions of the DGR apply to those goods.

When dangerous goods intended for air transport are carried by surface transport to or from an airport, any other applicable national or modal transport requirements should be met in addition to those that are applicable for the goods when carried by air.

Packaging Provisions for Infectious Substances, humans or animals, UN 2814 or UN

Packing Instruction 602 in the DGR specifies the type of packaging required for all Category A infectious substances. All other applicable provisions of the DGR apply *(See Annex 3 for a graphic depiction of a package containing category A infectious substances).*

Packaging Provisions for Biological Substances, Category B, Clinical Specimens, Diagnostic Specimens, UN 3373

Packing Instruction 650 in the DGR provides all the information necessary to prepare and transport Category B infectious substances *(See Annex 4 for a graphic depiction of a package containing category B infectious substances).*

Prohibitions

A live animal that has been intentionally infected and is known or suspected to contain an infectious substance must not be transported by air unless the infectious substance contained cannot be consigned by any other means. Infected animals may only be transported under terms and conditions approved by the appropriate national authority.

Passenger Provisions

Category A or B Infectious Substances are not permitted for transport in carry-on or checked baggage and must not be carried on a person. Packages containing Exempt human or animal specimens may be carried in checked or carry-on baggage provided that they meet the applicable packaging requirements.

Training and Emergency Response

Effective employee training and appropriate emergency response procedures are required to significantly minimize the risk of exposure and subsequent transmission of infection or disease.

Mitigation procedure:

DO NOT CLEAN-UP OR DISPOSE OF INFECTIOUS SUBSTANCES, EXCEPT UNDER SUPERVISION OF A SPECIALIST.

- Isolate spill or leak area immediately.
    - Keep unauthorized personnel away.
    - Obtain identity of substance involved if possible and report the spill to the appropriate authorities.
- Do not touch or walk through spilled material.
- Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.

    - Be particularly careful to avoid contact with broken glass or sharp objects that may cause cuts or abrasions that could significantly increase the risk of exposure.
    - Damaged packages containing solid CO_2 (dry ice) used as a refrigerant may produce water or frost from condensation of air. Do not touch this liquid as it could be contaminated by the contents of the parcel.
    - Liquid nitrogen may be present and can cause severe burns.
    - Absorb spilled materials with earth, sand or other non-combustible material while avoiding direct contact.
    - Cover damaged package or spilled material with damp towel or rag and keep wet with liquid bleach or other disinfectant. Liquid bleach will generally effectively inactivate the released substance.

First Aid:

- Move exposed person(s) to a safe isolated area.

CAUTION: Exposed person(s) may be a source of contamination. Persons administering first aid should take precautions to avoid personal exposure or secondary contamination of others.

- Call emergency medical services.
- If clothing and/or shoes are significantly contaminated, remove and isolate them. However, do not allow this to delay other first aid interventions.
- In case of contact of the substance to skin, eyes, nose or mouth, immediately flush the exposed area with copious amounts of running water. Continue this until emergency medical services arrives. Follow their advice for further decontamination.
- Most effects of exposure (inhalation, ingestion or skin contact) to substance are likely to be delayed.
- Ensure that medical personnel are aware of the substances involved so they can take precautions to protect themselves.

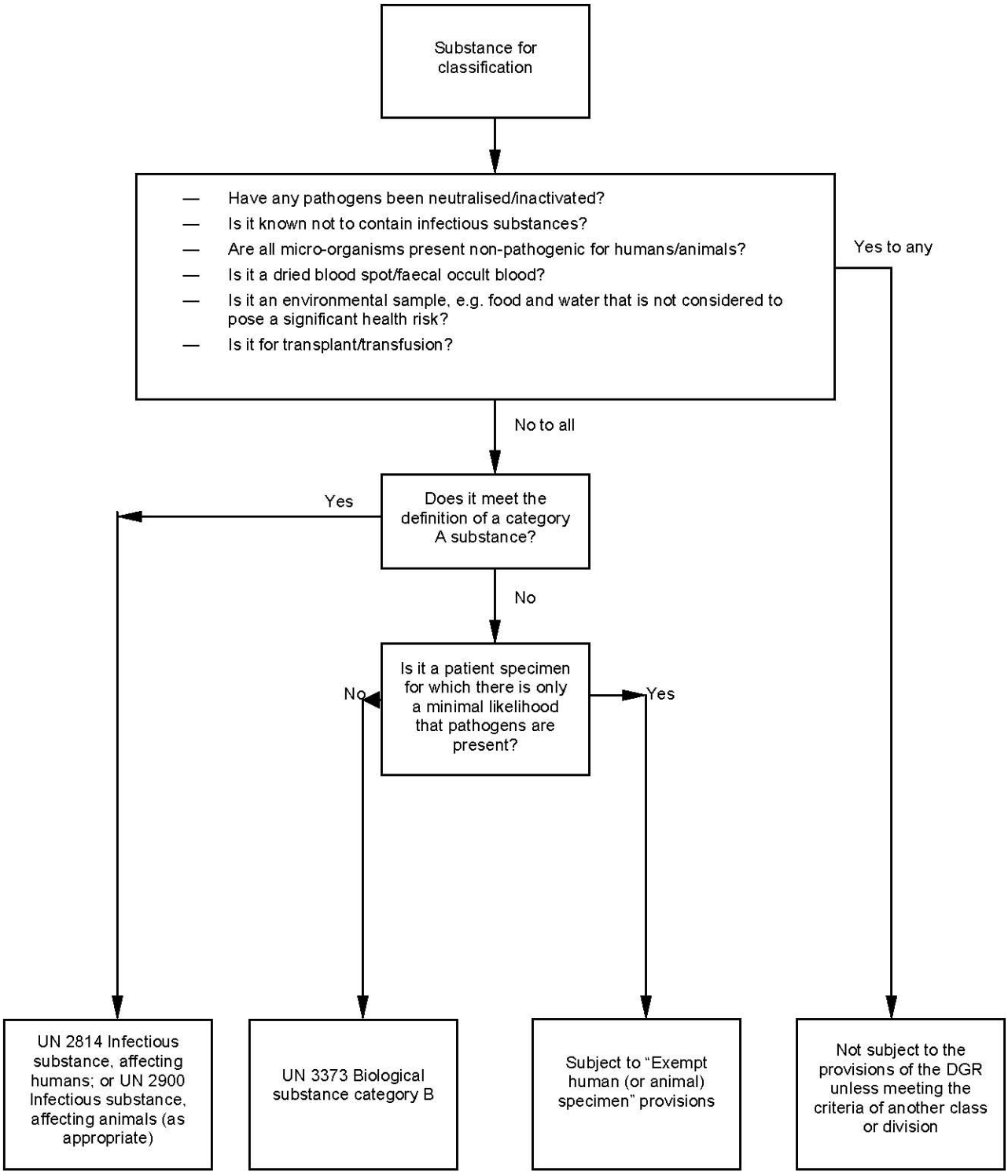
For further assistance, contact the appropriate public health authority

ANNEX 1 - Classification Scenarios

1. A blood sample known or reasonably suspected to contain EBOLA VIRUS. **Appropriate classification**: Infectious substances, affecting humans UN 2814.
2. A culture of FOOT AND MOUTH DISEASE. **Appropriate classification**: Infectious substances, affecting animals, UN 2900.
3. A blood sample taken from a patient known or suspected to have a category B pathogen, such as HEPATITIS B or HIV. **Appropriate classification**: Biological substance, category B, UN 3373.
4. Culture of BOVINE TUBERCULOSIS. **Appropriate classification**: Biological substance, category B, UN 3373.
5. Laboratory stock culture of a pathogen in category B, e.g. INFLUENZA VIRUS. **Appropriate classification**: Biological substance, category B, UN 3373. Specimen containing a category A or B infectious substance, treated so as to inactivate or neutralise the pathogens such that they no longer pose a health risk. **Appropriate classification**: Not subject to the transport requirements for dangerous goods, unless meeting the criteria for another class or division.
6. Patient specimens other than those known or reasonably suspected to contain a category A infectious substance e.g. those sent for testing for Cholesterol (blood), diabetes (urine), bowel cancer (faecal).**Appropriate classification:** this will depend on professional judgment, i.e.:

    i. If a professional judgment is made that there is only a minimal likelihood that pathogens are present, the specimen is not subject to the provisions of the DGR, provided they are packed in accordance with the provisions detailed under “Packaging for Exempt Patient Specimens” in this Guidance Document;
    ii. If no professional judgment is made, the specimen must be classified as UN3373.

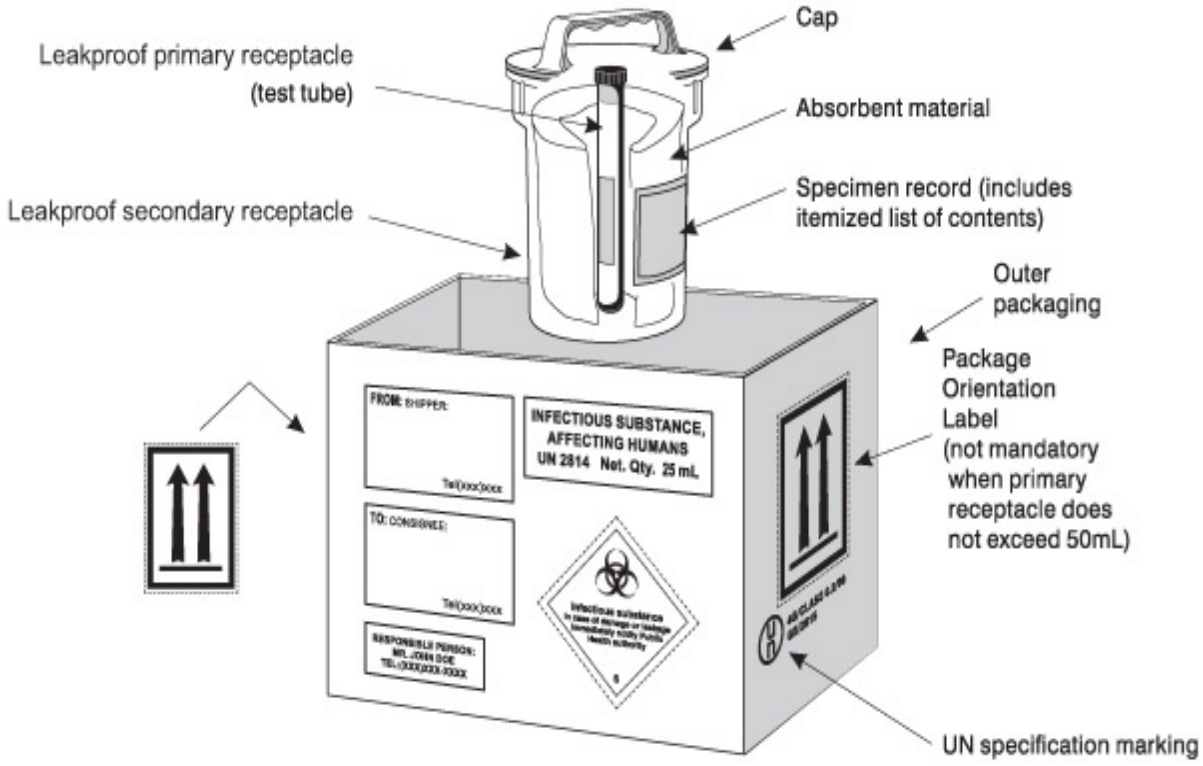
ANNEX 2 – Classification Flowchart



ANNEX 3

Example of Packing and Marking for Category A Infectious Substances

(See Packing Instruction 602 for additional requirements)



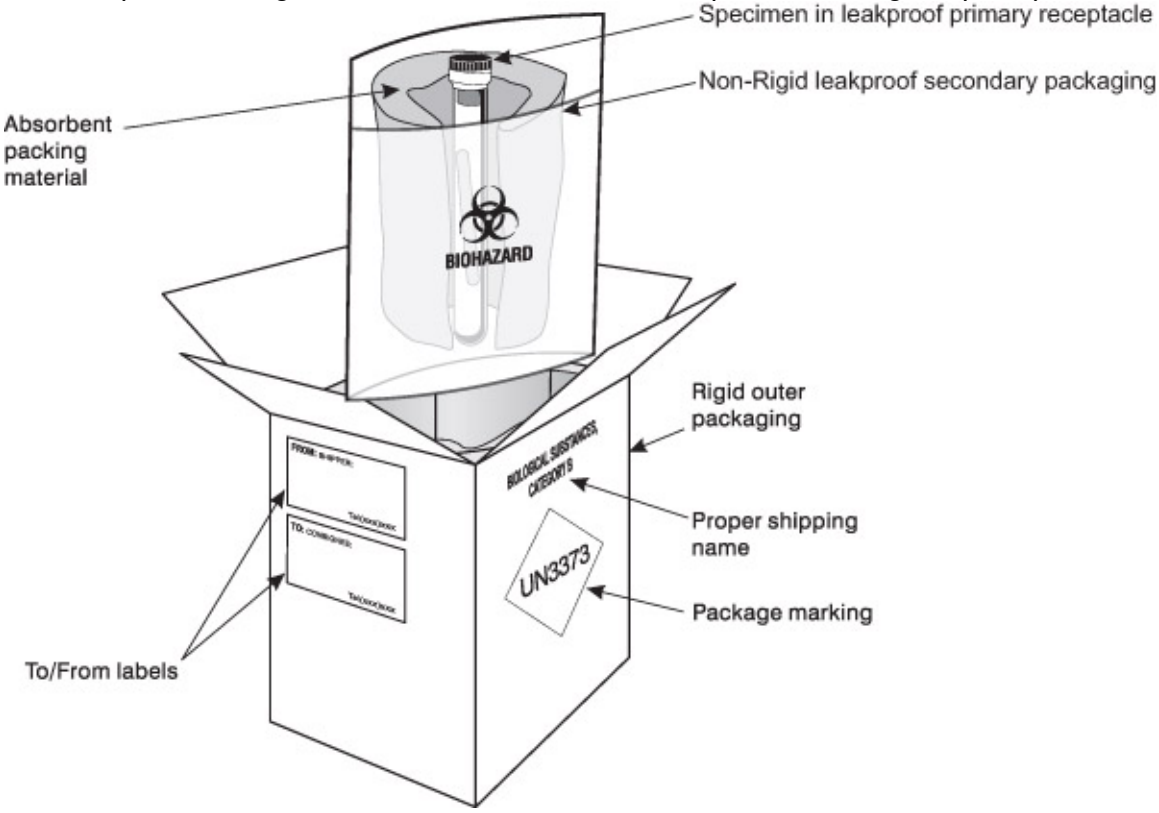
Notes:

1. The smallest external dimension of the outer packaging must not be less than 100 mm;
2. The primary receptacle or the secondary packaging must be capable of withstanding, without leakage, an internal pressure producing a pressure differential of not less than 95 kPa.

ANNEX 4

Example of Packing and Marking for Category B Infectious Substances

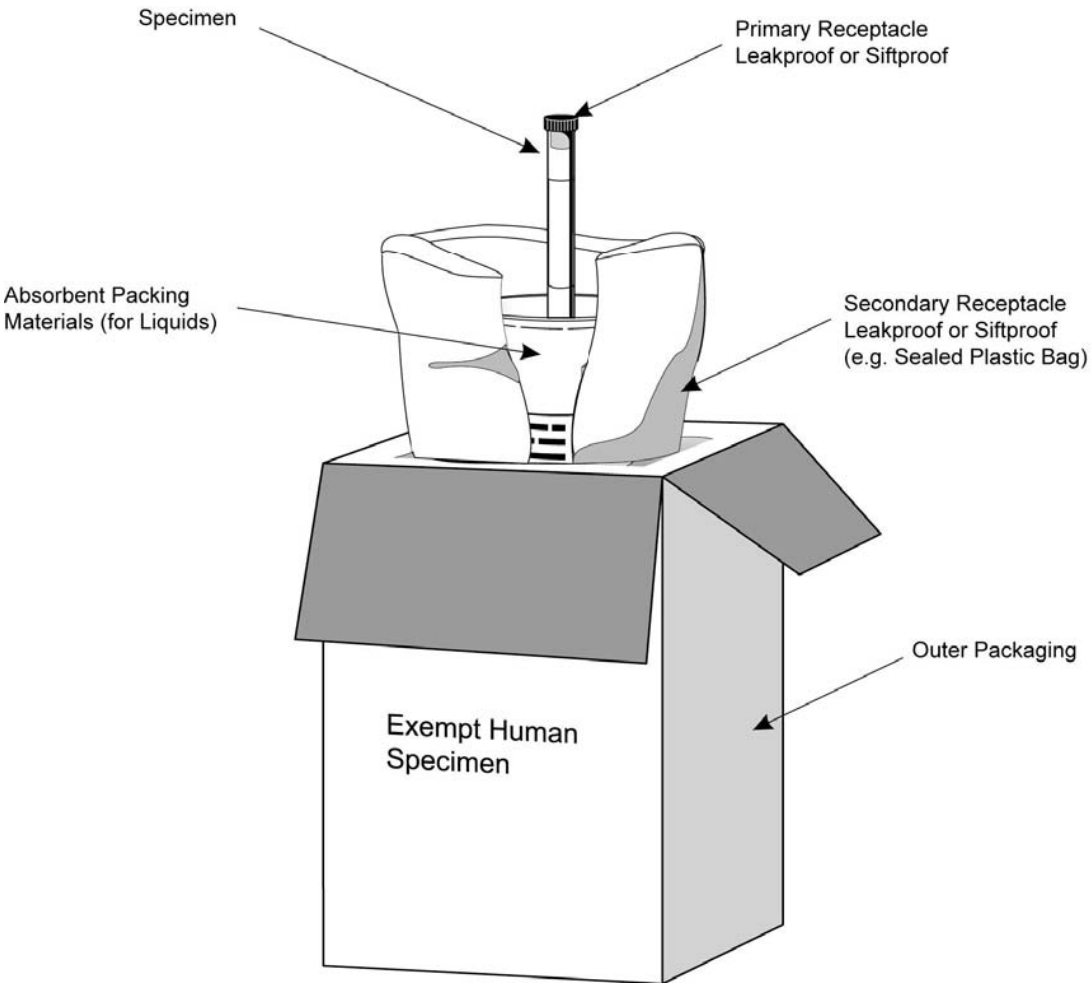
(See Packing Instruction 650 for additional requirements, e.g. drop test)



Notes:

1. At least one surface of the outer packaging must have a minimum dimension of 100 mm x 100 mm;
2. The primary receptacle or the secondary packaging must be capable of withstanding, without leakage, an internal pressure producing a pressure differential of not less than 95 kPa.

ANNEX 5
Example of Packing and Marking for Exempt Specimens



Notes:

1. At least one surface of the outer packaging must have a minimum dimension of 100 mm x 100 mm;
2. The outer packaging must be of adequate strength for its capacity, mass and intended use.

Appendix B
Specimen Collection and Handling

Specimen Transport Devices

The following specimen kits are furnished free of charge upon request. See Appendix C for a supply requisition form.

1. CHLAMYDIA/GC AMPLIFIED PROBE – Gen-Probe® UNISEX Swab Specimen Collection Kits and Gen-Probe® Urine Specimen Collection Kits.

2. CHLAMYDIA DFA – Slide collection kits.

3. ENTERIC PATHOGENS – Amies with charcoal transport medium in screw cap tube.

4. FUNGUS CULTURES – Saboraud's agar slants in screw cap tubes.

5. INFLUENZA – Viral transports.

6. MYCOBACTERIA (Tuberculosis) – One plastic 30 ml container (no preservative) for sputum and other body fluids. Ship mycobacteria specimens in coolers with ice packs. See appendix B for specimen collection instructions.

7. PARASITES – One-ounce containers with preservative for stool specimens.

8. PERTUSSIS CULTURE – Collection kits available from the Division of Laboratory Services. Kit includes two nasopharyngeal swabs, one tube of Reagan Lowe transport media for culture and one plastic transport tube for PCR. See appendix B for specimen collection instructions.

9. REFERENCE CULTURES – Send on solid tubed media. Do not send plates of actively growing organisms. If cultures in tubed media are not available, a portion of growth can be cut out of an agar plate and placed in a (sterile, screw top, water-tight) container for referral.

10. SEROLOGY – Mailing containers only.

11. SMALLPOX/VACCINIA SHIPPERS – Collection devices and instructions are included in UN certified Category A Infectious Substance Mailers. Call the Division Of Laboratory Services for assistance.
12. SPECIAL CULTURES – Contact laboratory for instructions.

13. TRANSPORT MEDIA – Amies transport media with charcoal in screw cap tubes for transporting aerobic bacterial specimens.

14. VIRAL CULTURES – Viral transports.

15. WHOOPING COUGH – See Pertussis culture.

FIGURE A-1. Blood collection for thin or thick blood films

Gloves should be worn when processing blood.

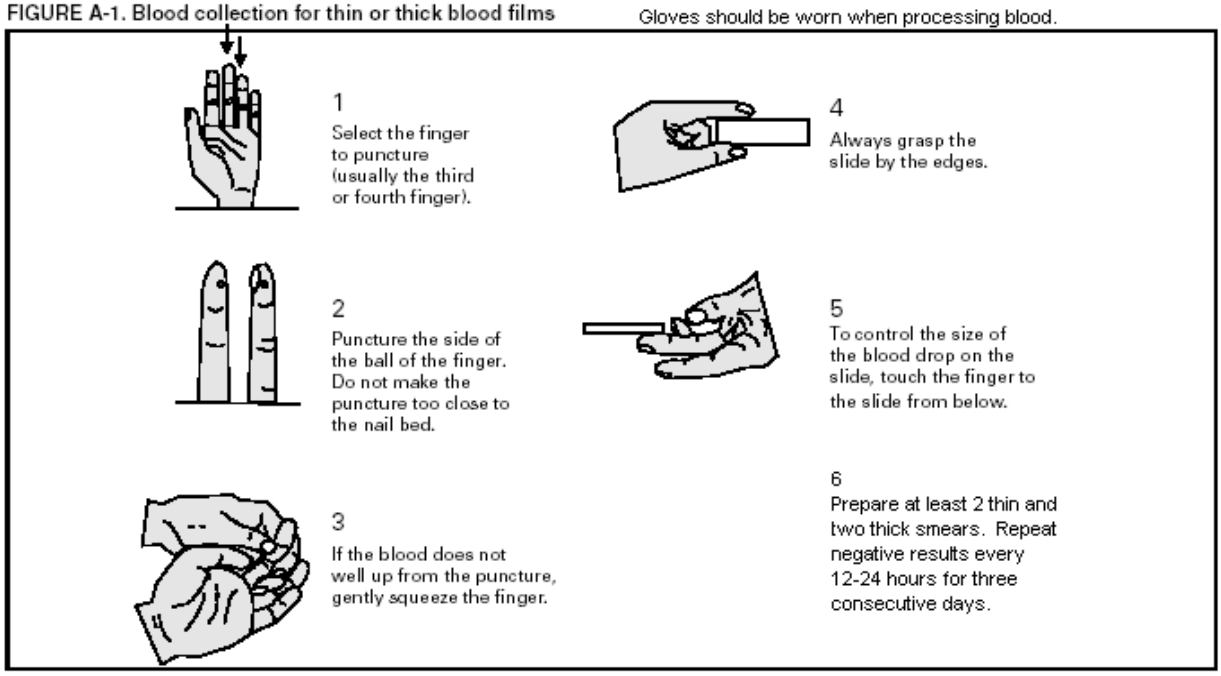
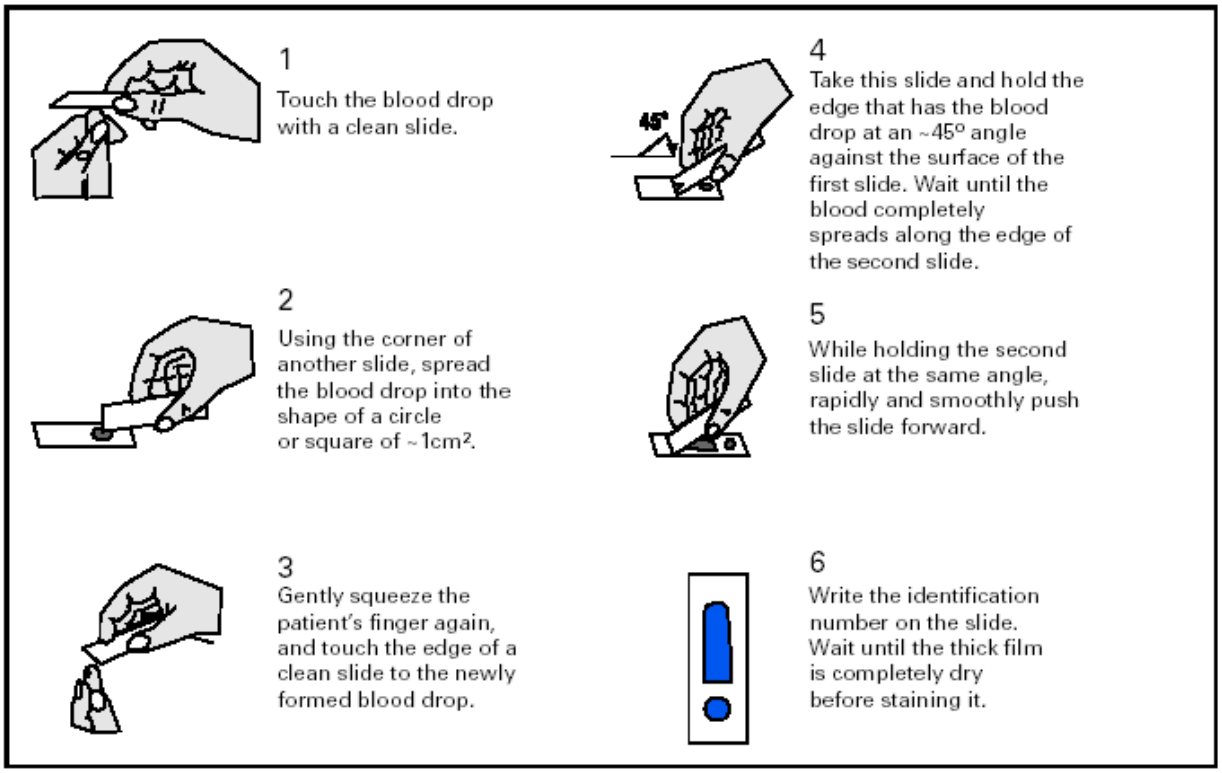


FIGURE A-2. Preparation of a thin and a thick blood film on the same slide

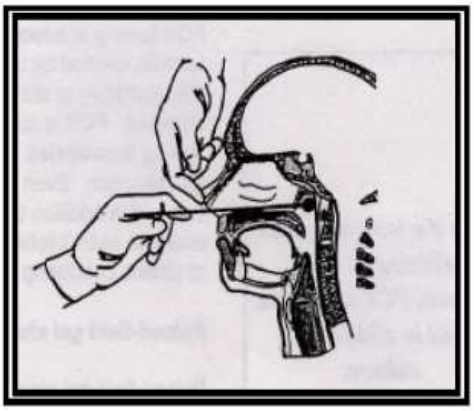


NORTH DAKOTA
DEPARTMENT of HEALTH

SPECIMEN COLLECTION AND HANDLING INSTRUCTIONS FOR THE *BORDETELLA PERTUSSIS* DNA PCR AMPLIFIED PROBE

1. The *B. pertussis* collection kit provided by the Division of Laboratory Services – Microbiology includes:
    a. One tube of Regan-Lowe transport medium. Store the unused medium at 2º to 8ºC until the indicated expiration date. Allow the tube to warm to room temperature before use.
    b. One small sterile plastic tube.
    c. Two sterile Dacron® polyester-tipped swabs suitable for the collection of nasopharyngeal specimens.

2. The specimen of choice is a nasopharyngeal swab collected in duplicate. (See picture below for proper collection of specimen)



    a. Place one swab in the tube of Regan-Lowe transport medium.
    b. Place the second swab in the small plastic tube provided. If this tube is unavailable, use any clean, sterile container that is free of detergents or preservatives.
    c. Cut the excess length of the wire shaft of each swab with a clean scissors and cap the tubes tightly.

3. Return both tubes to the zipper-lock plastic bag that contained the collection supplies.

4. Complete a Laboratory Test Request Form with the requested information. Be sure to complete the Patient Data section (symptoms and immunization history). Select the test "*Bordetella pertussis* Amplified Probe."

5. Place the specimens (in the plastic bag) and the completed request form into a cardboard mailing container provided by the Division of Laboratory Services – Microbiology.

6. As soon as possible, send both tubes at ambient (room) temperature to:

Division of Laboratory Services – Microbiology
2635 East Main Avenue
Bismarck, ND 58504

North Dakota Department of Health
Mycobacteria Collection and Handling

Source	**Collection** *Collect initial specimens before antimicrobial therapy is started.* *Collect specimens aseptically.* *Label each specimen container with patient name, specimen source and date of collection.* *Do not use fixatives or preservatives.*	**Volume**	***Container/Transport** *Use sterile, leak-proof containers.* *Transport specimens as quickly as possible.* *Refrigerate if transportation will be delayed.* *All specimens except blood and bone marrow must be shipped refrigerated.* *Never mail cultures in petri dishes or specimens in urine cups.*
Sputum	Aseptically collect three to six specimens on consecutive days. For best results collect early in the morning. Collect the material that is brought up after a deep, productive cough. **Specimens collected on the same day will be considered the same and only one processed.**	5-10ml **Do not pool specimens**	Ship specimens within 24 hours. Do not wait and send consecutively collected specimens together.
Body Fluids	Disinfect site with alcohol if collecting with syringe.	Abdominal 10-15ml Pericardial, Synovial 3-5ml CSF 2ml	
Blood and Bone Marrow	Disinfect site as for routine blood culture.	5-10ml	SPS (yellow top) is preferred. Sodium heparin may be used. No EDTA or other preservatives. Keep at room temperature. Do NOT refrigerate.
Tissue	Aseptically collect in sterile container without fixatives or preservatives. Add only enough sterile saline to prevent drying.	1gram (Only one specimen will be tested unless sources are significantly different)	Do not wrap in gauze or send on swab.
Urine	First morning void collected on three consecutive days. Either clean-catch or catheterization. Do not pool specimens or obtain from catheter bag.	40 ml	
Bronchial Wash	Avoid contaminating bronchoscope with tap water.	5-7ml	
Swab	Not an acceptable specimen. The hydrophobic nature of the mycobacteria cell wall inhibits transfer of the organism from the swab to the aqueous media.		If only specimen available, add sufficient sterile saline to keep moist and send in sterile, leak proof container.

***See appendix A for packing and labeling instructions.**

APPROVAL CRITERIA FOR USE OF THE MTD TEST

The *Mycobacterium tuberculosis* direct test (MTD) is available free of charge through the Division of Laboratory Services for select specimens. Testing criteria is based on guidance from the Centers for Disease Control and Prevention (CDC) in the Jan. 16, 2009, issue of *Morbidity and Mortality Weekly Report* **Updated Guidelines for the Use of Nucleic Acid Amplification Tests in the Diagnosis of Tuberculosis**. A summary of these guidelines can be accessed online at www.ndhealth.gov/microlab. The Division of Laboratory Services receives funding through CDC and must test specimens according to their guidelines. The MTD test may only detect 50 percent of AFB-smear negative, culture-positive pulmonary TB cases, so the Division of Laboratory Services will only perform the MTD test on specimens coming from patients **with a high clinical suspicion of TB**.
MTD Test Approval Criteria:

1. **Specimen is AFB smear positive OR meets clinical criteria.** The patient must have a combination of two or more of the following:
    a. Positive tuberculin skin test or gamma-interferon release assay
    b. HIV infection or other immune-compromising condition
    c. Contact to infectious TB case
    d. Radiologic evidence of current TB disease
    e. Currently taking two or more anti-TB medications

MTD TEST APPROVAL REQUEST

For testing to be approved, fill out the information below and return with the Laboratory Request form (SFN 5826). If smear positive results are called to your facility and you would like to request an MTD, fax request to 701.328.6280. If you have any questions, call 701.328.6272.

Patient Name: _____ DOB: _____/____/_____

Requesting Physician:_____

Facility:_____

1. What clinical criteria listed above does the patient meet?

   _____

2. What are the smear results from the clinical specimen?_____

3. Has the patient had antituberculin therapy in the last 12 months?

   □ YES □ NO

QuantiFERON -TB Gold In-Tube

COLLECTION

Collection MUST BE performed using the QuantiFERON-TB Gold In-Tube Collection Kit.

1. Collect 1 mL blood by venipuncture into each of the three tubes.
    - **Tubes fill slowly.**
    - Use of a syringe may ensure correct blood volume.
    - When tube is upright, blood must meet the small black mark on the label.
    - If butterfly needle is used, first collect other required tubes or use a "purge" tube to remove the air. Then proceed with collecting the QTB tubes.
    - These tubes are manufactured to draw 1 mL of blood and perform optimally within the range of 0.8 to 1.2 mL. If the level of blood is not close to the BLACK INDICATOR LINE, another blood specimen should be collected.

2. Immediately SHAKE the tubes vigorously for 5 seconds (10x).
    - Entire inner surface of tube must be coated with blood.
    - Blood should be frothy after shaking.
    - Thorough mixing is required to ensure complete integration of the tube's contents into the blood.

3. LABEL tubes appropriately. The label should be placed below colored 'QuantiFERON' band so back window is visible on all three collection tubes.

4. MAINTAIN tubes at room temperature until incubation.

5. It is recommended the INCUBATION at your facility start as soon as possible. It must be started within 16 hours of collection.

INCUBATION and CENTRIFUGATION

1. Incubate all three tubes upright at 37°C for 16 to 24 hours.
    - If delayed following collection, re-mix tubes again by vigorously shaking for five seconds immediately before incubation (hemolyzed plasma is acceptable).
    - Improper incubation may cause erroneous results.
    - Humidity and CO_2
2. CENTRIFUGE tubes for 15 minutes at 3000 RCF (g) after incubation.
3. PLACE all three tubes together back in the QTB transport bag (supplied).
4. STORE: refrigerate 2° to 8°C

SHIPPING

1. Ship QTB kit at refrigerate temperature (2° to 8°C).

Appendix C
Forms

HANTAVIRUS PULMONARY SYNDROME CASE REPORT FORM

Please return with Diagnostic Specimen Submission Form to:

North Dakota Dept of Health
Division of Laboratory Services – Microbiology
2635 East Main Ave.
PO Box 5520
Bismarck, ND 58506-5520
PHONE: 701-328-6272 **FAX: 701-328-6280**

Information below is required for identification and meaningful interpretation of laboratory diagnostic results. HPS may not be confirmed without compatible clinical and/or exposure data.

Patient's last name _____First name_____ Middle initial: ___

Street Address: City _____County _____State _____Zip: _____

DOB:____ Sex: Male____ Female____ Occupation: _____

Ethnicity: Hispanic or Latino____ Not Hispanic or Latino____ Unk____

Race: American Indian/Alaska Native____ Asian____ Black or African American____
Native Hawaiian or Other Pacific Islander____ White____

History of any rodent exposure in 6 weeks prior to onset of illness? Yes____ No____ Unk____

If yes, type of rodent: Mouse____ Rat____ Other____ Rodent nest____ Unk____

Place of contact (town, county, state): _____

Symptom onset date: _____	Specimen acquisition date: _____

Signs and Symptoms:

Fever > 101˚ F or > 38.3˚ C Yes____ No____ Unk____
Thrombocytopenia (platelets ≤ 150,000 mm) Yes____ No____ Unk____
Elevated Hematocrit (Hct) Yes____ No____ Unk____
Elevated creatinine Yes____ No____ Unk____
WBC Total:____ Total Neutrophils:____% Band Neutrophils:____% Lymphocytes: ____%
Supplemental oxygen required? Yes____ No____ Unk____
Was patient intubated? Yes ____ No____ Unk____
Was patient hospitalized? Yes ____No ____ If Hospitalized Provide Dates_____
CXR with unexplained bilateral interstitial
infiltrates or suggestive of ARDS? Yes____ No____ Unk____

Outcome of illness? Alive____ Dead____ Unk____
Was an autopsy performed? Yes____ No____ Unk____

Has specimen been tested for hantavirus at another laboratory? Yes____ No____ Unk____
If yes, where? _____ Type of specimen? _____ Results (i.e. titer, OD)_____

Date form completed: _____
Person completing report: _____Phone number _____
Name of patients's physician: _____ Phone number _____

For State Use:
State Health Dept. reporting case: _____ State ID number: _____

HIV SEROLOGY

NORTH DAKOTA DEPARTMENT OF HEALTH

SFN 16486 (Rev. 05-2004) TELEPHONE (701) 328-6272

NOTICE: Free, confidential HIV testing is made available through funding from the Centers for Disease Control and Prevention and is contingent upon this surveillance data. Therefore, it is imperative to complete this form in its entirety.

Patient's Name (Last) (First) (MI)

Patient's Address | Date of Birth | Sex 1-M ☐ 2-F ☐

City | State | Zip Code

Telephone Number | Date Collected

ENTER YOUR ASSIGNED IDENTIFICATION CODE: ☐☐☐

Previously Tested?
NO YES
When? ____/____/____
Where? _____/_____
(State) (County)

FOR LABORATORY USE

Physician's Name (Last, First) | Specimen Drawn By

Facility | Telephone Number

Address

City | State | Zip Code

RACE
- ☐ 1 - American Indian/Alaskan Native
- ☐ 2 - Asian
- ☐ 3 - Black or African American
- ☐ 4 - Native Hawaiian/Pacific Islander
- ☐ 5 - White

ETHNICITY
☐Hispanic ☐Non-Hispanic

Source of Specimen:
(Specify Type)
- ☐ Serum
- ☐ Oral Fluid
- ☐ Other _____

REASON FOR TEST (Must check at least one)
- ☐ 1 Symptomatic for HIV
- ☐ 2 Client referral
- ☐ 3 Provider referral
- ☐ 4 STD related
- ☐ 5 Drug treatment related
- ☐ 6 Family planning related
- ☐ 7 Prenatal/OB related
- ☐ 8 TB related
- ☐ 9 Court ordered
- ☐ 10 Immigration/travel req.
- ☐ 11 Occupational exposure
- ☐ 12 Retest
- ☐ 13 Requesting HIV Test
- ☐ 14 Other

RISK BEHAVIORS (Check all that apply)
- ☐ 1- Sex with a man.
- ☐ 2- Sex with a woman.
- ☐ 3- Injection drug use.
- ☐ 4- Sex with HIV + person.
- ☐ 5- Sex with IDU.
- ☐ 6- Sex with MSM.
- ☐ 7- Sex in exchange for money/drugs.
- ☐ 8- Current STD diagnosis.
- ☐ 9- Child of HIV - infected woman.
- ☐ 10- Other.

HIV SEROLOGY

NORTH DAKOTA DEPARTMENT OF HEALTH

SFN 16486 (Rev. 05-2004) TELEPHONE (701) 328-6272

NOTICE: Free, confidential HIV testing is made available through funding from the Centers for Disease Control and Prevention and is contingent upon this surveillance data. Therefore, it is imperative to complete this form in its entirety.

Patient's Name (Last) (First) (MI)

Patient's Address | Date of Birth | Sex 1-M ☐ 2-F ☐

City | State | Zip Code

Telephone Number | Date Collected

ENTER YOUR ASSIGNED IDENTIFICATION CODE: ☐☐☐

Previously Tested?
NO YES
When? ____/____/____
Where? _____/_____
(State) (County)

FOR LABORATORY USE

Physician's Name (Last, First) | Specimen Drawn By

Facility | Telephone Number

Address

City | State | Zip Code

RACE
- ☐ 1 - American Indian/Alaskan Native
- ☐ 2 - Asian
- ☐ 3 - Black or African American
- ☐ 4 - Native Hawaiian/Pacific Islander
- ☐ 5 - White

ETHNICITY
☐Hispanic ☐Non-Hispanic

Source of Specimen:
(Specify Type)
- ☐ Serum
- ☐ Oral Fluid
- ☐ Other _____

REASON FOR TEST (Must check at least one)
- ☐ 1 Symptomatic for HIV
- ☐ 2 Client referral
- ☐ 3 Provider referral
- ☐ 4 STD related
- ☐ 5 Drug treatment related
- ☐ 6 Family planning related
- ☐ 7 Prenatal/OB related
- ☐ 8 TB related
- ☐ 9 Court ordered
- ☐ 10 Immigration/travel req.
- ☐ 11 Occupational exposure
- ☐ 12 Retest
- ☐ 13 Requesting HIV Test
- ☐ 14 Other

RISK BEHAVIORS (Check all that apply)
- ☐ 1- Sex with a man.
- ☐ 2- Sex with a woman.
- ☐ 3- Injection drug use.
- ☐ 4- Sex with HIV + person.
- ☐ 5- Sex with IDU.
- ☐ 6- Sex with MSM.
- ☐ 7- Sex in exchange for money/drugs.
- ☐ 8- Current STD diagnosis.
- ☐ 9- Child of HIV - infected woman.
- ☐ 10- Other.

LABORATORY TEST REQUEST FORM

North Dakota Department of Health
Division of Laboratory Services-Microbiology
www.ndhealth.gov/microlab
Telephone: 701-328-6272
Fax: 701-328-6280
After Hours: 701-400-2772

FOR LABORATORY USE

SFN 5826 (Rev. 11/2010)

Patient's Name (Last) (First) (MI)

Patient's Address	Date of Birth	Sex ☐ Male ☐ Female	Race/Ethnicity
City	State / Zip Code	Patient's Telephone Number	

FACILITY		Customer Code
Address	State / Zip Code	Facility's Telephone Number
Physician's Name (Last, First)		

SPECIMEN DATA	Type/Source	☐ Acute ☐ Convalescent	Date of Collection:

PATIENT DATA	Disease Suspected	Date of Onset	
Principal Symptoms:		Fever (over 100°)	Rash ☐YES ☐ NO
Hospitalization ☐YES ☐NO	Recent Immunizations (specify)	Date of Immunization	

☐ Adenovirus Culture
☐ Arbovirus Encephalitis Panel (Seasonal)*
☐ Aerobic Culture ID (Submit Isolate)
☐ Anaerobic Culture ID (Submit Isolate)
☐ Bacillus anthracis Culture
☐ Bordetella pertussis PCR/Culture*
☐ Brucella Antibody*
☐ Brucella Culture
☐ Campylobacter Confirmation (Submit Isolate)
☐ Chlamydia trachomatis DFA
☐ Chlamydia trachomatis/Neisseria gonorrhoeae Nucleic Acid Amplified Probe
☐ Corynebacterium diphtheriae Culture
☐ Cytomegalovirus Antibody, IgM
☐ Cytomegalovirus Culture
☐ Encephalitis Panel*
☐ Enterovirus Culture
☐ Epstein-Barr Antibody, IgM*
☐ Escherichia coli O157:H7 Culture
☐ Escherichia coli O157:H7 Serotyping
☐ Flourescent Treponema Antibody (FTA-ABS)
☐ Francisella tularensis Antibody*
☐ Francisella tularensis Culture
☐ Fungal Culture
☐ Fungal Smear
☐ Haemophilus influenzae Serotyping
→ **Hantavirus Antibody** (Use Hantavirus Form)
☐ Hepatitis A & B Panel*
☐ Hepatitis A Antibody, IgM*
☐ Hepatitis A, B & C Panel*
☐ Hepatitis B & C Panel*
☐ Hepatitis B Core Antibody (Anti-HBC)*
☐ Hepatitis B Surface Antibody Immune Status (Anti HBs)*
☐ Hepatitis B Surface Antigen (HBsAg)*
☐ Hepatitis B Surface Antigen (HBsAg) & Hepatitis B Core Antibody (Anti HBc)*
☐ Hepatitis C Antibody (Anti-HCV)*
☐ Herpes Simplex Virus Antibody, IgM*
☐ Herpes Simplex Virus Culture
→ **HIV Antibody** (Use HIV Form)
☐ Influenza Virus Type A & B Culture
☐ Influenza Virus PCR*
☐ Legionella pneumophila Antibody*
☐ Legionella pneumophila Culture Confirm.
☐ Legionella pneumophila Culture & DFA
☐ Lyme Disease Antibody EIA*
☐ Malarial Thick and Thin Blood Smears*
☐ Measles Virus Antibody, IgM*
☐ Measles Virus Culture
☐ Mumps Virus Antibody, IgM*
☐ Mumps Virus Culture
☐ Mycobacteria Culture (TB) & Smear
☐ Mycobacteria Direct Probe (Amplified)* **(Requires Culture & Smear)**
☐ Mycobacteria Susceptibility
☐ Mycoplasma pneumoniae Antibody, IgM*
☐ Neisseria gonorrhoeae Culture
☐ Neisseria meningitidis Serogrouping
☐ Ova and Parasites
☐ Parainfluenza Virus Types 1,2,3, Culture
☐ Prenatal Hepatitis B Surface Antigen (HBsAg)*
☐ Respiratory Syncytial Virus Antibody, IgM (infants to 2 years)*
☐ Respiratory Syncytial Virus Culture (infants to 2 years)*
☐ Rocky Mountain Spotted Fever Antibody*
☐ Rubella Virus Antibody, IgM*
☐ Rubella Virus Culture
☐ Salmonella Serotyping
☐ Shigella Serotyping
☐ Syphilis Screen (RPR)
☐ TORCH Antibodies Panel, IgM (Newborn)*
☐ Toxoplasma gondii Antibody, IgM*
☐ Typhus Antibody*
☐ Varicella-Zoster Virus Antibody, IgM*
☐ Varicella-Zoster Virus Culture
☐ Vibrio Culture
☐ VDRL (CSF)
☐ West Nile Virus EIA, IgM*
☐ Yersinia pestis Culture
☐ _____
☐ _____
☐ _____
☐ _____
☐ _____
☐ _____
☐ _____
☐ _____
☐ _____
☐ _____
☐ _____

*Patient data required WHITE COPY – Division of Laboratory Services YELLOW COPY – Customer

RABIES INFORMATION

NORTH DAKOTA DEPARTMENT OF HEALTH
DIVISION OF LABORATORY SERVICES – MICROBIOLOGY
2635 EAST MAIN AVE. PO BOX 5520
BISMARCK, ND 58502 Phone #: (701) 328-6272

For Laboratory Use

SFN 8742 (10-2007)

Date of Incident	Date Submitted	Type of Animal
Owner's Name		Telephone Number
Address		City, State, Zip Code
Veterinarian's Name		Telephone Number
Address		Submitting Organization Lab Code
City, State, Zip Code		Physician's Name
Name of Submitting Organization		Telephone Number
Address		City, State, Zip Code
Number of Persons Involved		Location of Bite

NAME OF PERSON INVOLVED	ADDRESS	AGE	SEX

BEHAVIOR OF **SUSPECT** (Check Appropriate Description)

□ Aggressive	□ Furious	□ Dumb	□ Sick	□ Scenting (skunk)
□ Paralysis	□ Blind	□ Salivating	□ Absence of Fear	□ Tremors
□ Chasing	□ Biting	□ Scratching	□ Unable to Eat or Drink	□ Normal
□ Hyper-friendly	□ Convulsions	□ Staggering		

Give brief history of exposure incident:

Signature of Person Who Filled Out Form

Appendix C

Supply Request Form

LABORATORY SUPPLY REQUEST
North Dakota Department of Health
Division of Laboratory Services-Microbiology
SFN 16120 (05-09)
Phone Number: 701.328.6272
FAX Number: 701.328.6280

DATE: _____

Facility	Customer Code		
Address			
City	Zip Code		
Name of Caller	OFFICE USE ONLY		

ITEM REQUESTED	QUANTITY		Call-In Initials	SENT	
	Pkg/Box	Each		No.	Date/Tech
Amies Transports					
Forms HIV Serology Request					
Supply Request Form					
Test Request Form					
Aptima™ Transports (Chlamydia/Gonorrhea Amplified Probe) – 50/box					
Influenza Kit					
O & P Transports					
Pertussis DNA Probe Transports					
Saboraud Fungus Transports					
Serology Mailer					
TB Containers (Sputum and AFB)					
Urine Transports (Chlamydia/Gonorrhea Amplified Probe)					
Viral Culturettes™					
Other					

Supplies may also be ordered on-line at www.ndhealth.gov/microlab

NORTH DAKOTA MORBIDITY REPORT
North Dakota Department of Health
Division of Disease Control
SFN 7630 (Rev 12-2010)

See other side for listing of reportable conditions

Confidentiality Protected by North Dakota
Century Codes 23-07-02.1 and 23-07-02.2

		County		Report Date (M/D/Y)	
Disease or Condition	Last Name	First Name		Date of Onset (M/D/Y)	
Date of Birth (M/D/Y)	Telephone No.	Race	Ethnicity ☐Hispanic ☐Non Hispanic	Gender M / F	Marital Status M / S
Street Address	City	State	Zip Code		
Has Diagnosis Been Confirmed by Laboratory Test? ☐ No ☐ Yes-Name of Lab:	Name of Test: Result:				
Specimen Source:	Date Specimen Collected (M/D/Y)	Pregnant ☐Yes ☐No			
Treatment (if applicable)					
Reason Test Conducted: ☐ Infection ☐ Screen ☐ Other (specify_____)	Is Isolate Resistant to Any Antimicrobial Agent? ☐ No ☐ Yes-Type of Antimicrobial:				
Was Patient Hospitalized? ☐ No ☐ Yes-Name of Hospital:	Date Admitted (M/D/Y)	Date Discharged (M/D/Y)	Outcome ☐ Survived ☐ Expired		
Person Reporting	Address/Facility	Telephone Number			

Was sample submitted to North Dakota Public Health Laboratory (NDPHL)? ☐ Yes ☐ No

If yes was sample: ☐ Original Material ☐ Serum ☐ Pure Isolate (Specific Agent Identified _____)

Health Care Provider

Cancer Site	**Date Cancer Diagnosed (M/D/Y)**	**Cancer Histology**

Comments

*To report diseases online go to www.ndhealth.gov/Disease/Disease%20Reporting/Report.htm

Website References

North Dakota Department of Health;
Division of Laboratory Services-
Microbiology: www.ndhealth.org/microlab

Centers for Disease Control and Prevention:
www.cdc.gov

North Dakota Department of Health;
Division of Disease Control:
www.ndhealth.gov/disease

American Society for Microbiology:
www.asm.org

For Assistance with Packaging and Shipping Regulations:

- North Dakota Department of Health;
  Division of Laboratory Services-Microbiology
  Online Packaging and Shipping Course
  https://lms.ndhealth.gov

- IATA Guidance Document (**International Air Transport Association)**

http://www.iata.org/SiteCollectionDocuments/Documents/Guidance_Doc62DGR_51.pdf

- DOT (Department of Transportation)

http://hazmat.dot.gov/hazhome.htm

- ICAO (International Civil Aviation Organization)
  http://www.icao.int/

- FedEx Guidance
  FedEx Dangerous Goods Forms
  http://www.fedex.com/us/services/options/dangerousgoods/declarationforms.html
  FedEx Dangerous Goods Job Aid 2010
  http://images.fedex.com/us/services/pdf/DG_Job_Aid_2010.pdf
  Fed Ex Dangerous Goods Acceptance Checklist – 2010
  http://images.fedex.com/us/services/pdf/DG_NRChecklist_US_2010_Print.pdf

For Safety Recommendations:

- Biosafety in Microbiological and Biomedical Laboratories (BMBL) 5th edition
  http://www.cdc.gov/od/ohs/biosfty/bmbl5/bmbl5toc.htm

Links in this document were current as of the date of printing.

NORTH DAKOTA
DEPARTMENT *of* HEALTH