Acadian Medical Center

CLIENT SERVICE MANUAL

09/21/2020

Acadian Medical Center
Table of Context

Acadian Medical Center

MISSION STATEMENT

Mission Statement

Making Communities Healthier

Vision Statement

We want to create places where:

- People choose to come for healthcare
- Physicians want to practice
- Employees want to work

Acadian Medical Center

Laboratory Information

Acadian Medical Center

3501 Hwy 190 East

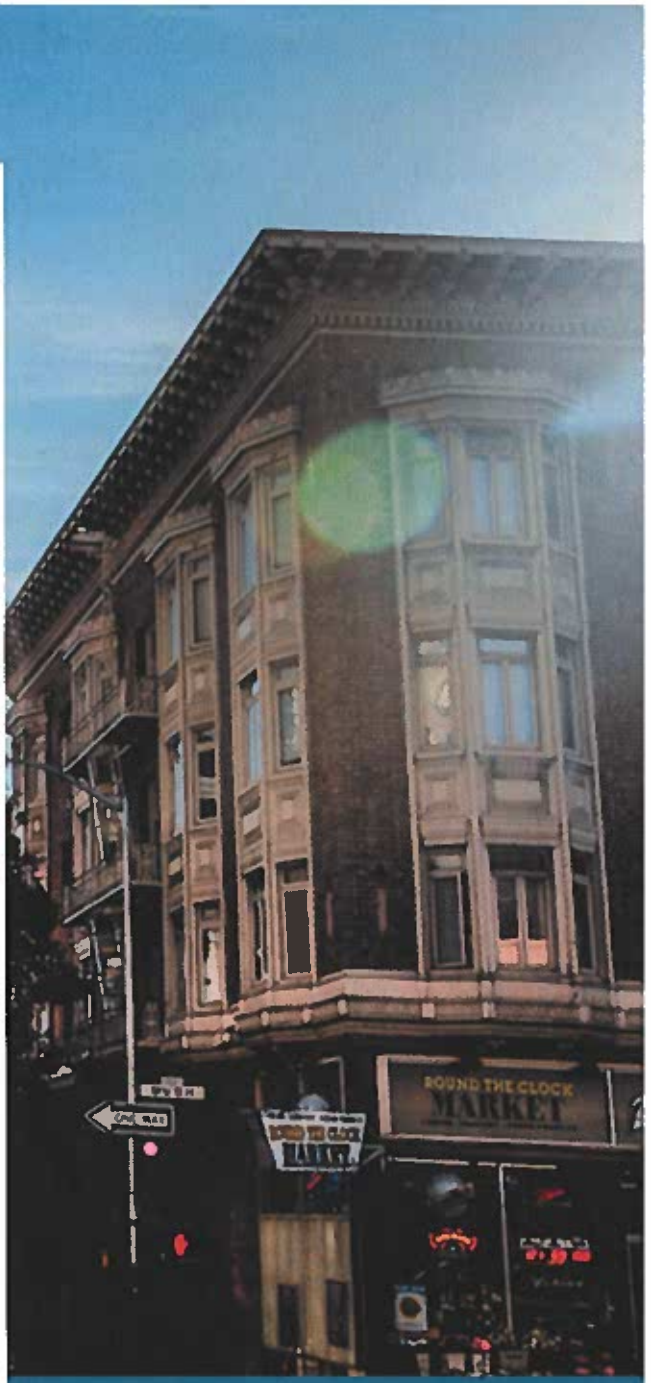
Eunice, La 70535

Laboratory phone number: 337-580-7560

Hours of Operation

24/7

TEST MENU



SEPTEMBER 21

Acadian Medical Center

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NOTE:

1) **All unspun blood samples are to be received into the laboratory within 90 minutes from the time of collection unless your facility has the capability of centrifuging specimens according to the following chart – otherwise the sample will be rejected.**
2) **Patient blood samples that have been centrifuged are to be transported and received at the temperatures found in the sample requirements in the following charts. Samples will be monitored at the hospital to assure that samples are maintained at the appropriate temperature – if the samples are not received at the required temperature the samples will be rejected.**
3) **If the test you are looking for is not listed in the test menu – please call the laboratory for specific specimen requirements.**

Laboratory Information

Acadian Medical Center

3501 Hwy 190 East

Eunice, La 70535

Laboratory phone number: 337-580-7560

Hours of Operation

24/7

Test/Panel	Collection Requirements	Additional Requirements	Stability at Room Temp	Stability Stored 2-8 °C
CBC (Compete Blood Count) with differential				
WBC, RBC, HGB, HCT, PLT (includes red cell indices MCV,MCH, MCHC, RDW)	Lavender top	Minimum 1/2 full	24 hours	24 hours
Auto diff includes % Segs, Lymphs, Eos, Monos , and Basos	Lavender top	Minimum 1/2 full	24 hours	24 hours
Manual differential performed as needed or requested	Lavender top	Minimum 1/2 full	24 hours	24 hours
H&H only	Lavender top	Minimum 1/2 full	24 hours	24 hours
CMP (Complete Metabolic Panel)				
Glucose, BUN, Creatinine, Sodium, Potassium, Chloride, CO2, Calcium, Albumin, ALT, AST, Alkaline Phos, Total Protein, Total Bili	Green or Red top	Must be separated within 2 hours	8 hours	2 days
BMP (Basic Metabolic Panel)				
Glucose, BUN, Creatinine, Sodium, Potassium, Chloride, CO2, Calcium	Green or Red top	Must be separated within 2 hours	8 hours	3 days
Hepatic Profile				
ALT, AST, Alkaline Phos, Total Protein, Albumin, Total Bilirubin, Direct Bilirubin	Green or Red top	Must be separated within 2 hours	8 hours	3 days
Renal Panel				
Glucose, BUN, Creatinine, Sodium, Potassium, Chloride, CO2, Calcium, Phos, Albumin	Green or Red top	Must be separated within 2 hours	8 hours	3 days
Test/Panel	**Collection Requirements**	**Additional Requirements**	**Stability at Room Temp**	**Stability Stored 2-8 °C**
Thyroid Profile			8 hours	2 days
Lipid Profile				
Cholesterol, Triglycerides, HDL Cholesterol, LDL Cholesterol	Green or Red top	Must be separated within 2 hours	8 hours	7 days
Individual Chemistry Tests				
Test/Panel	**Collection Requirements**	**Additional Requirements**	**Stability at Room Temp**	**Stability Stored 2-8 °C**
Acetaminophen	Green or Red top	Must be separated within 2 hours	24 hours	1 week
Albumin (Alb)	Green or Red top	Must be separated within 2 hours	7 days	1 month
Alkaline phosphatase (ALP)	Green or Red top	Must be separated within 2 hours	48 hours	4 days
Alanine transaminase (ALT)	Green or Red top	Must be separated within 2 hours	**48 hours**	**3 days**
Ammonia (Ammon)	Green top	Must be separated ASAP	n/a	at 2-4 degrees Celsius for 3 hours
Amphetamine (Amph)	Urine	fresh - if turbid must be centrifuged	7 days	30 days

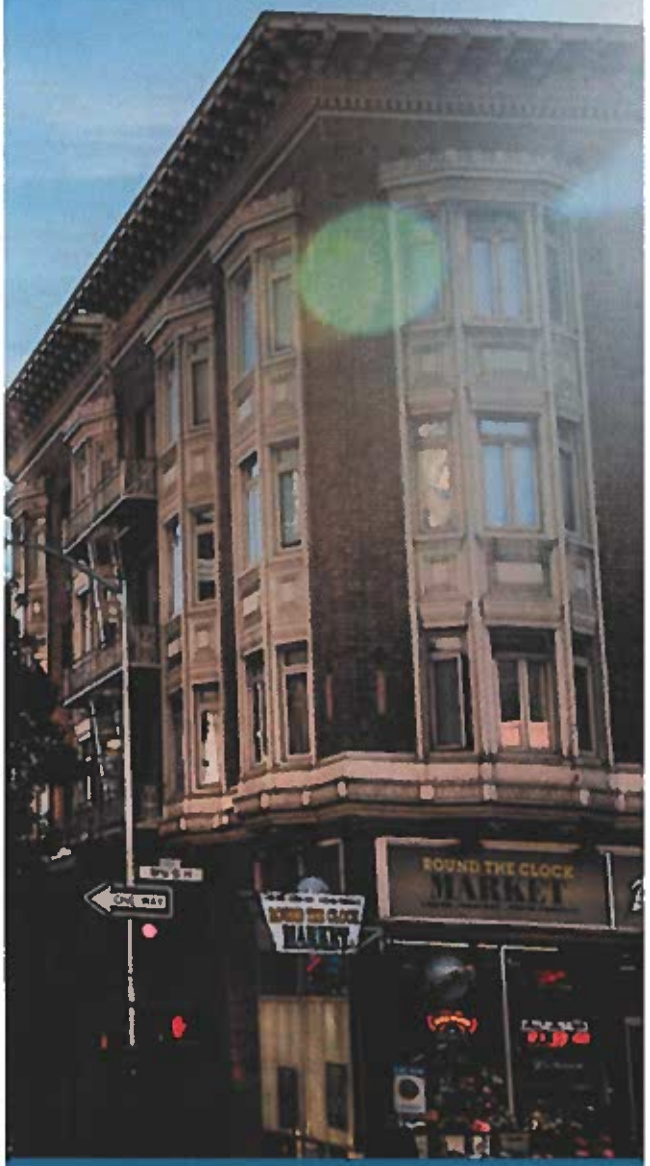
Amylase (Amy)	Green or Red top	Must be separated within 2 hours	7 days	1 month
Aspartate transaminase (AST)	Green or Red top	Must be separated within 2 hours	1 day	4 weeks
Barbiturate (Barb)	Urine	fresh - if turbid must be centrifuged	7 days	30 days
Benzodiazepine (Benz)	Urine	fresh - if turbid must be centrifuged	7 days	30 days
Beta Human Chorionic Gonadatropin (BHCG) total	Green or Red top	Must be separated within 2 hours	8 hours	48 hours
Bilirubin Direct (Dbil)	Green or Red top	Must be separated within 2 hours	8 hours	3 days
Bilirubin Total (Tbil)	Green or Red top	Must be separated within 2 hours	8 hours	serum - 3 days
Blood Urea Nitrogen (BUN)	Red top	Must be separated within 2 hours	1 day	7 days
B natriuretic peptide (BNP) Triage	Lavender top only		7 hours	24 hours
Calcium (CA)	Green or Red top	Must be separated within 2 hours	7 days	22 days
Cannabinoids (THC)	Urine	fresh - if turbid must be centrifuged	7 days	30 days
Carbamazepine (CBMN)	Green or Red top	Must be separated within 2 hours		1 month
Chloride/Sodium/Potassium (CL/NA/K)	Green or Red top	Must be separated within 2 hours	CL/ 7days	CL/NA/K 7 days
Cholesterol (Chol)	Green or Red top	Must be separated within 2 hours	48 hours	7 days
Carbon Dioxide (CO2)	Green or Red top	Must be separated from cells promptly	1 day	7 days
Cocaine (COC)	Urine	fresh - if turbid must be centrifuged	7 days	30 days
Creatine Kinase (CK)	Green or Red top	Must be separated within 2 hours	4 hours	8 - 12 hours
Creatine Kinase-MB (CK-MB)	Green or Red top	Must be separated within 2 hours	8 hours	48 hours
Creatinine (Creat)	Green or Red top	Must be separated within 2 hours	48 hours	serum - 7 days urine - 6 days
C Reactive Protein (CRP)	Red top	Must be separated within 2 hours	11 days	2 months
Test/Panel	**Collection Requirements**	**Additional Requirements**	**Stability at Room Temp**	**Stability Stored 2-8 °C**
Digoxin (DIG)	Green or Red top	Must be separated within 2 hours	8 hours	7 days
Ethyl Alcohol (ETOH)	Green or Red top	Must be separated within 2 hours		3 days
Ferritin (Ferr)	Green or Red top	Must be separated within 2 hours	48 hours	7 days
Folate	Green or Red top	Must be separated within 2 hours		48 hours
Free Thyroxine (FT4)	Green or Red top	Must be separated within 2 hours	8 hours	48 hours
Glucose (Glu)	Gray or Red Top	Must be separated within 1 hours	serum 8 hours plasma 72 hours CSF 5 days	serum 72 hours
Gentamicin	Green or Red top	Must be separated within 2 hours	16 hours	6 weeks

HDL-Cholesterol (HDL)	Green Top	Must be separated within 2 hours	14 hours	7 days
Iron (Fe)	Green or Red Top	Must be separated within 2 hours	4 days	7 days
Lactate (LAC)	Green Top	Must be separated within 15 minutes	8 hours	14 days
Lactate Dehydrogenase (LDH)	Green or Red Top	Must be separated within 2 hours	48 hours	DO NOT REFRIGERATE
Lipase (Lip)	Green or Red Top	Must be separated within 2 hours	48 hours	7 days
Magnesium (MG)	Green or Red Top	Must be separated within 2 hours	48 hours	7 days
Methadone (Meth)	Urine	turbid specimens must be centrifuged	7 days	30 days
Microalbumin	Urine	turbid specimens must be centrifuged		72 hours
Opiate (OPI)	Urine	turbid specimens must be centrifuged	7 days	30 days
Phencyclidine (PCP)	Urine	turbid specimens must be centrifuged	7 days	30 days
Phenobarbital (PHB)	Green or Red Top	Must be separated within 2 hours	24 hours	1 month
Phenytoin (PTN)	Green or Red Top	Must be separated within 2 hours	24 hours	1 month
Phosphorous (Phos)	RED TOP ONLY	Must be separated within 2 hours	8 hours	7 days
Progesterone (Prog)	Red top	Must be separated within 2 hours	8 hours	48 hours
Prostate Specific Antigen (PSA)	Red top	Must be separated within 2 hours	3 hours	24 hours
Rheumatoid Factors (RF)	Green or Red Top	Must be separated within 2 hours	1 day	8 days
Salicylic Acid	Green or Red Top	Must be separated within 2 hours	48 hours	store 2 - 8 - no time given
Thyroid Stimulating Hormone (TSH)	Green or Red top	Must be separated within 2 hours	18 hours	7 days
Total Protein (TP)	RED TOP ONLY	Must be separated within 2 hours	7 days	1 month
Total Thyroxie (TT4)	Green or Red top	Must be separated within 2 hours	8 hours	24 hours
Triglyceride (Trig)	Green or Red Top	Must be separated within 2 hours	48 hours	7 days
AccuTnI+3 (Troponin)	Green or Red top	Must be separated within 2 hours	2 hours	24 hours
Unsaturated Iron Binding Capacity (UIBC)	Green or Red Top	Must be separated within 2 hours	4 days	7 days
Urine/CSF Protein (UP)	Urine/CSF	Urine fresh or 24 hour		Urine - 48 hours CSF - 72 hours
Uric Acid (Uric)	Green or Red Top	Must be separated within 2 hours	48 hours	5 days
Valproic Acid (VALP)	Green or Red Top	Must be separated within 2 hours	48 hours	
Vancomycin (Vanco)	Green or Red Top	Must be separated within 2 hours	24 hours	48 hours
Coagulation Tests				

Protime with INR	Blue Top	Must be full/ must be separated within 2 hours	24 hours	
APTT	Blue Top	Must be full/ must be separated within 2 hours	4 hours	
D-dimer	Green Top	Must be separated within 2 hours	4 hours	24 hours
Drug Screen EIA (on instrument)	Fresh urine specimen in plastic or glass container stored unrefrigerated for up to 7 days.			
Amphetamines				
Methamphetamines				
Opiates				
Oxycodone				
THC				
Benzodiazepines				
Barbiturates				
Cocaine				
Test/Panel	**Collection Requirements**	**Additional Requirements**	**Stability at Room Temp**	**Stability Stored 2-8 °C**
Miscellaneous Tests				
Fecal Occult Blood (Guiac)	Stool Sample			
Fecal Occult Blood (IFOB)	Stool Sample		14 days	
Rapid UDS (Positive samples submitted to reference lab for confirmation)	Fresh Urine	Refrigerate if not submitted immediately	8 hours	3 days
hcG urine	Fresh Urine	first morning best	8 hours	3 days
hcG serum	Red top			48 hours
ESR	Lavender top	Must be full	4 hours	24 hours
H. pylori Ab	Lavender top			2 days
MonoTest	Red and Lavender top		24 hours Red/Lavender	48 Hours serum only
Rapid Strep (Negative Samples submitted for confirmation)	Throat Swab		24 hours Red/Lavender	48 hours
RSV (Negative samples submitted for confirmation)	Nasal Wash	process as soon as possible		48 hours
Rotavirus	Stool Sample	freeze at -20 if testing is to be delayed		
RF	Red Top	Must be separated within 2 hours	24 hours	7 days
Influenza A&B	Nasal Swab	after adding reagent solution	12 hours	
Serum Acetone	Red, green or purple top	perform on fresh specimens	2 hours	48 hours
Urinalysis (Microscopic performed as requested of as necessary)	Fresh Urine	Refrigerate if not submitted immediately		24 hours
Urinalysis Culture if Positive (Culture submitted to reference lab if Nitrite or Leukocytes positive on dip or >10 WBC's with bacteria present on microscopic analysis)	Fresh Urine	Refrigerate if not submitted immediately		24 hours
Test/Panel	**Collection Requirements**	**Additional Requirements**	**Stability at Room Temp**	**Stability Stored 2-8 °C**
Blood Gas Analysis				

pH	Arterial Stick with Heparinized Syringe		alert Respiratory: 30 minutes at room temp	
pCO2				
pO2				

TEST REQUEST POLICY AND ORDER FORM



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Acadian Medical Center

DEPT: LABORATORY

ACADIAN MEDICAL CENTER

Test Request	**PAGE:** 1 OF 1	**LAB - 64**

Policy

All requests for laboratory tests should be made in writing from a licensed physician, dentist or other personnel who are authorized by law to request and use findings of laboratory examinations.

Licensed Laboratory personnel may accept verbal/phone orders from a physician. Verbal orders are discouraged for routine use and should only be allowed in emergent situations. When a verbal order is accepted a written request must be obtained within 30 days of the verbal request.

Requests should be legible and complete. In the event there is a question concerning the order, the requesting individual should be contacted for clarification.

Requests should include all information required for the performing individual to make professional judgments for appropriates of results obtained. The following information should be identified:

a. Patient Name
b. Patient's Gender
c. Age or Date of Birth
d. Requested Test(s)
e. Special Handing (where applicable)
f. Date and Time to be performed (where applicable)
g. Additional information required by the laboratory to support accurate test interpretation and reporting of results, such as race, ethnicity, or family history

Adopted: 7/2020
Last Revised:
Last Reviewed:

ACADIAN MEDICAL CENTER

LAB REQUISITION FORM

3501 U.S. Hwy 190
Eunice, LA 70530
Acadian Lab: 337-580-7560

Patient Name:_____ **DOB:**_____ **Gender:** ___Male ____ Female

Provider Name:_____ **Provider Fax#:**_____ **Provider Phone#:**_____

Collection Date/Time/Collector's Initials:_____ **Source (if not blood):**_____

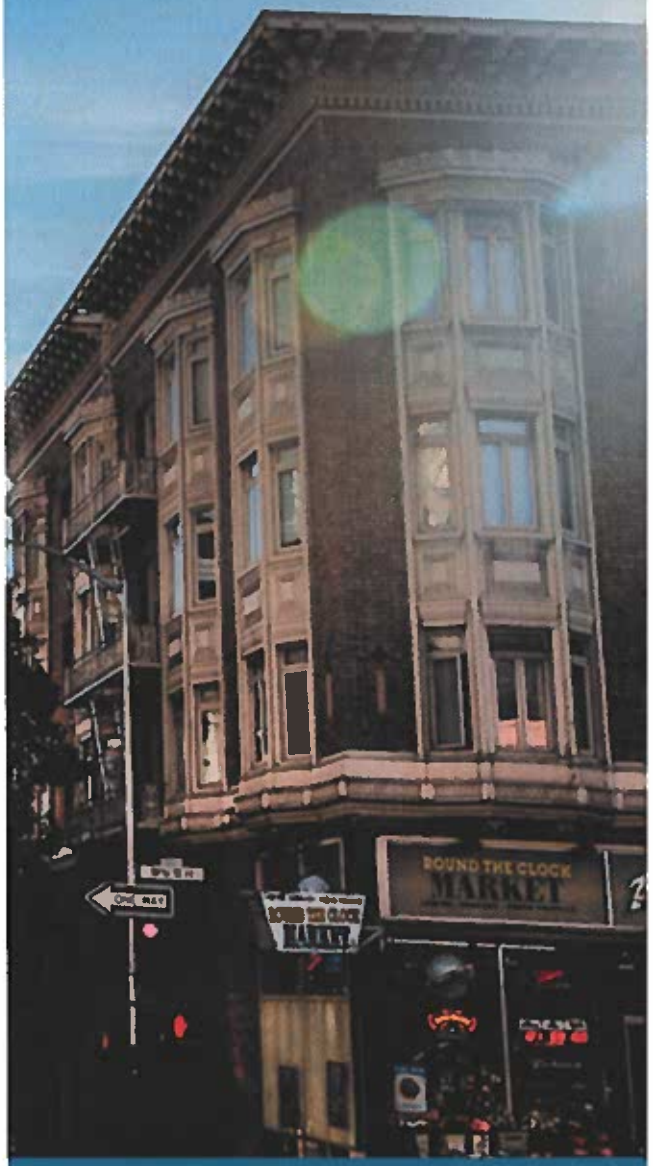
Panels	Chemistry	Miscellaneous
Electrolyte Panel: Na, K, Cl and CO_2	Albumin (Alb)	Serum Acetone
BMP: Na, K, Cl, CO_2, BUN, Creat, Gluc, Ca	Alkaline Phosphatase (Alk Phos)	Serum Pregnancy
CMP: BMP, Alb, TP, Alk Phos, Tbili, SGOT/AST, SGPT/ALT	Alanine Transaminase (ALT)	Urine Pregnancy
Lipid Profile: Chol, Trig, HDL Chol	Amylase (Amy)	CSF Glucose
Hepatic Panel: Dbili, Tbili, Alb, TP, Alk Phos, SGOT/AST, SGPT/ALT	Aspartate Aminotransferase (AST)	CSF Protein, Total
	B-Human Chorionic Gonadatropin(BHCG)	Occult Blood Stool
Cardiac Panel: CK, CKMB, Trop-I	Brain Natriuretic Peptide (BNP)	Influenza A/B
UDS: Amph, Barb, Benzo, Coc, Meth, Opiate, Phencyclidine, THC	Direct Bilirubin (Dbili)	Respiratory Syncytial Virus (RSV)
	Total Bilirubin (Tbili)	C Diff Toxin
***Reproductive Assay Panel**: Urine Preg, BGHC, ***Estradiol**, Prog, ***FSH**, ***LH**, ***DHEA-S**, ***Prolactin**	Calcium (Ca)	Rotavirus
	Cholesterol (Chol)	Rapid Strep A
***Acute Hepatitis Panel**: ***Hep A Ab IGM**, ***Hep B Core Ab IGM**, ***Hep B Surface Ag**, ***Hep C Ab**	Cholesterol HDL (HDL Chol)	***Hemoglobin A1C (HgbA1C)**
	Creatine Kinase (CK)	***DNA Probe GC**
***Prenatal Profile**: CBC w/Auto diff, ***Rubella Ab**, ***Hep B Surface Ag**, ABO, Rh type, Antibody Screen, RPR, ***ANA**, RA, ***ESR**	Creatine Kinase MB (CKMB)	***DNA Probe Chlamydia**
	Chloride (Cl)	***Ova and Parasites**
	Carbon Dioxide (CO_2)	***EPO**
***Thyroid Panel**: Free T3, Total T4, Tuptake	Creatinine (Creat)	**Cultures**
	C-Reactive Protein (CRP)	Culture Routine (Source:_____)
Glucose Tolerance Test	Ferritin	Culture Throat
___ 1Hr ___2Hr ___3Hr ___4Hr ___ 2Hr Post Prandial	Glucose (Gluc)	Culture Stool
	Iron (Fe)	***Culture AFB**
	Total Iron Binding Cap (TIBC)	***Culture Fungus**
Urinalysis	Lactate Dehydrogenase (LDH)	***Culture GC**
Urinalysis Comp	Lactic Acid	**Endocrinology**
Urinalysis Dipstick	Lipase	Folate
Urine Culture: ___ Clean Catch, ___ Catherized, ___ Voided	Magnesium (Mg)	Progesterone
	Phosporous (Phos)	T4, free
	Potassium (K)	T4, total
	Prostate Specific Antigen (PSA)	TSH
TDM	Protein, Total (TP)	Vitamin B12
Acetaminophen (ACTM)	***Transferrin**	***Total T3**
Carbamazepine (CR8M)	Triglyceride (Trig)	***Vitamin D**
Digoxin (DIG)	Troponin I (Trop-I)	**Hematology**
Gentamicin (Gent)	Blood Urea Nitrogen (BUN)	CBC with Auto Diff
Phenobarbital (PHB)	Uric Acid (Uric)	CBC with Manual Diff
Phenytonin (PTN)	**Urine Chemistry**	***Erythrocyte Sedimentation Rate (ESR)**
Salicylate (SALI)	Urine Creatinine	**Immunology**
Valproic Acid (Valp)	Urine Microalbumin	Mononucleosis (Mono)
Vancomycin (Vanc)	Urine Protein, Total	Rapid Plasma Reagin (RPR)
	Creatinine Clearance	Rheumatoid Arthritis (RA)
Coagulation		
D-Dimer	***Other (please write test)**	
PT/INR (Pt. on Coumadin ___ Yes ___ No)		
PTT (Pt. on Heparin ___ Yes ___ No)		

Diagnosis : _____

Physician Signature : _____

*** Tests with astricks are Reference Laboratory Test**

SPECIMEN COLLECTION, LABELING, HANDLING, STORAGE AND TRANSPORT



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Acadian Medical Center

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DEPT: Laboratory		
Specimen Collection, Labeling, Handling, Storage and Transport	**PAGE:** 1 **OF** 9	

SPECIMEN COLLECTION AND HANDLING

I. Purpose:

Improper handling and processing of specimens can introduce test result imprecision or systematic bias before the tests are performed. Specific concerns include transport, proper specimen identification, prolonged contact of cells with serum or plasma, concentration changes due to evaporation or cell lysis, the use of serum separation devices, analyte deterioration because of improper storage, and the use of anticoagulants. Recognition and control of these variables will reduce error and contribute to the medical usefulness of patient test results. This procedure establishes criteria for an optimal specimen for analysis.

II. Scope:

All Laboratory Departments

III. Definition of Terms:

A) Pre-centrifugation phase – the time period after specimen collection and before centrifugation.

IV. Equipment

A) Required Equipment for Specimen Collection – be sure the following materials are readily accessible before performing venipuncture:

1. Appropriate apparel i.e., gloves, eye protection, coats or gowns, and other appropriate apparel for protection from exposure to blood borne pathogens or other potentially infectious materials.
2. All necessary tubes, identified by size, draw and additive.
3. Labels for positive patient identification of samples. Must contain patient's first and last name, patient unique ID Number, date and time of collection and collectors initials.
4. Blood collection needles and holders.
5. Alcohol swabs for cleansing site for routine laboratory work. Non-alcohol based cleansing material for blood alcohol testing. Tincture of iodine or suitable alternative for sterile collection.
6. Dry, clean disposable gauze.

7. Tourniquet (i.e., single use, latex free)
8. Adhesive plaster or bandage (i.e., hypoallergenic)
9. Approved biohazard container for needle disposal.

B) Required Equipment Not Provided for Specimen Processing (if done prior to bringing specimen to laboratory)
   a. Disposable transfer pipets if directing sampling from the instrument is not used or if specimen is stored separately.
   b. Centrifuge capable of generating the recommended RCF at the tube bottom. A horizontal centrifuge head is preferred for barrier quality with gel tubes and to obtain platelet poor plasma for coagulation studies.
   c. Gloves and other personal protective equipment as necessary for protection from exposure to blood borne pathogens.

V. Procedure

A) Recommended order of draw:
   1. Sterile Tubes for sterile samples (Blood Culture Tubes).
   2. Coagulation Study Tubes (citrate).
   3. Serum tubes with or without clot activator, with or without gel.
   4. Heparin tube with or without gel plasma separator.
   5. EDTA tube.
   6. Glycolytic inhibitor tubes.

NOTE: If a winged blood collection set is used, the first tube in the series will be under filled. Therefore, if a coagulation specimen is drawn first, a discard tube (a no-additive or coagulation tube) is recommended to be drawn to this tube to ensure the proper anticoagulant-to-blood ratio. In addition even though studies have shown that PT and APTT tests are not affected if drawn first in a tube series, it is advisable to draw a second tube for other coagulation assays, since it is not known whether or not these tests will be affected.

B) Prevention of Backflow: Most evacuated blood collection tubes contain chemical additives. Therefore it is important to avoid possible blackflow from the tube, due to the possibility of adverse patient reactions. To prevent backflow from the tube into the patient's arm observe the following precautions:
   1. Place patient's arm in a downward position.
   2. Hold tube with the cap uppermost.

3. Release tourniquet as soon as blood starts to flow into tube.
4. Make sure the tube contents do not touch cap or end of the needle during venipuncture.

C) Venipuncture Technique and Specimen Collection General Instructions: *WEAR GLOVES DURING VENIPUNCTURE AND WHEN HANDLING BLOOD COLLECTION TUBES TO MINIMIZE EXPOSURE HAZARD.*

1. Select tube or tubes appropriate for required specimen. For sterile collections, see laboratory policy for sterile specimen collection.
2. Assemble needle in holder. Be sure needle is firmly seated to ensure needle does not unthread during use.
3. Gently tap tubes containing additives to dislodge any material that may be adhering to the stopper.
4. Place tube into holder. Note: Do not puncture stopper.
5. Select site for venipuncture.
6. Apply tourniquet. Prepare venipuncture site with an appropriate antiseptic. DO NOT PALPATE VENIPUNCTURE AREA AFTER CLEANSING.
7. Place the patients arm in a downward position.
8. Remove needle shield. Perform venipuncture WITH ARM DOWNWARD AND TUBE STOPPER UPPER-MOST.
9. Center tubes in holder when penetrating the stopper to prevent sidewall penetration and resultant premature vacuum loss. Push tube onto needle, puncturing stopper diaphragm. Always hold the tube in place by pressing it with the thumb. This will ensure a complete vacuum draw.
10. Remove tourniquet as soon as blood appears in tube. Do not allow contents of tube to contact the stopper end of the needle during procedure.
    Note: Blood may occasionally leak from the needle sleeve. Practice Universal Precautions to minimize exposure hazard. If no blood flows into tube or if blood ceases to flow before an adequate specimen is collected, the following steps are suggested to complete satisfactory collection:

    a. Push tube forward until tube stopper has been penetrated. If necessary, hold in place to ensure complete vacuum draw.
    b. Confirm correct position of needle cannula in vein.
    c. REMOVE TUBE AND PLACE NEW TUBE INTO THE HOLDER.
    d. If second tube does not draw, remove needle and discard. Repeat procedure from Step 1.

11. When first tube has filled to its stated volume and blood flow ceases, gently remove it from the holder.
12. Place succeeding tubes in holder, puncturing diaphragm to begin flow. See recommended order of draw.
13. Gently invert each tube immediately as it is removed from the holder, using the correct number of inversions to achieve the proper mix of additive and blood. While each successive tube is filling, turn the filled tube upside-down and return it to upright position. This is one complete inversion.
    NOTE: Do not shake the tubes. Vigorous mixing may cause foaming or hemolysis. Insufficient mixing or delayed mixing in serum tubes may result in delayed clotting. In tubes with anticoagulants, inadequate mixing may result in platelet clumping, clotting and/or incorrect test results.
14. As soon as blood stops flowing in the last tube, remove tube from holder, remove needle from vein, applying pressure to puncture site with dry sterile gauze until bleeding stops.
15. Once clotting has occurred, apply bandage if desired. Hypoallergenic adhesives may be advisable.
16. After venipuncture, the top of the stopper may contain residual blood. Take proper precautions when handling tubes to avoid contact with blood.
17. Dispose of needle and holder per your facility's policy and guidelines.
18. ***Label tubes with patient's full name, DOB, date and time of draw and collector's initials.***

VI. Specimen storage and preservation is needed:

A. Samples that need to be centrifuged if you have the capability:
   1. Allow samples to clot thoroughly (minimum 30 minutes) after collection. Incomplete clotting may lead to contamination of the instrument and to erroneous results.
   2. Blood collection tubes must be spun within 2 hours after collection. Extended contact of blood cells with the serum or plasma may lead to erroneous results.
   3. Ensure that tubes are properly seated in the centrifuge carrier. Incomplete seating may result in the separation of the Blood Collection Tube Safety Cap from the tube.

ACADIAN MEDICAL CENTER

DEPT: Laboratory

Specimen Collection, Labeling, Handling, Storage and Transport	PAGE: 5 OF 9	

NOTE: Follow the centrifuge speed and times in the Table below.

FOR BD VACUTAINER BLOOD COLLECTION TUBES

Tube Type	Recommended Inversions	Recommended g-force	Recommended Time Minutes
BD SST and BD PST tubes (glass)	5	1000 – 1300 g	10
BD SST Plus and BD PST Plus Tubes (13mm)	5	1100 – 1300 g	10
BD SST Plus and BD PST Plus Tubes (16mm)	8 – 10	1100 – 1300 g	10
BD SST Transport Tubes	8 – 10	1100 – 1300 g	15
BD SST II Advance and BD SST II Tubes	6	1300 – 2000 g	10
All Non-Gel Tubes	8 – 10	≤ 1300 g	10
Citrate Tubes	3 - 4	1500 g	15

FOR GREINER BIO-ONE VACUETTE BLOOD COLLECTION TUBES

Tube Type	Recommended Inversions	Recommended g-force	Recommended Time Minutes
Vacuette Serum Tubes (Clot Activator, No Additive)	5-10	Minimum 1500 g	10
Vacuette Serum Clot Activator w Gel Tubes	5 – 10	1800 g	10
Vacuette K2EDTA with Gel Tubes	8 – 10	1800 – 2200	10
Vacuette Plasma Tubes Lithium Heparin, Sodium Heparin, Glycolytic Inhibitor	5 – 10	2000 – 3000 g	15

Vacuette Lithium Heparin With Gel Tubes	**5 – 10**	**1800 – 2200**	**10 – 15**
Vacuette Coagulation Tubes (Sodium Citrate) **Platelet tests (PRP)** **Routine tests (PPP)** **Preparation for deep freeze Plasma (PFP)**	**4**	**PRP: 150 g** **PPP: 1500 – 2000 g** **PFP: 2500 – 3000 g**	**PRP: 5** **PPP: 10** **PFP: 20**

NOTE: It is not recommended to re-centrifuge tubes once the barrier has been formed

B. Storage of samples must adhere to the manufacturer's storage requirements for ensuring specimen integrity and accurate and reliable test results (Consult individual test methodology sheets for any test requested). As a general rule, if testing cannot be performed within 8 hours, storage of the serum/plasma at 2-8°C for up to 24 hours is acceptable for most analytes. For storage beyond 24 hours, freeze specimen. Never freeze whole blood specimens unless required by the reference lab.
    a) If storage is required, label aliquot tube with patient's full name, DOB, date and time of draw, and collector's initials.
    b) Using a disposable plastic pipette carefully remove cell free serum/plasma from patient tube and dispense into aliquot tube.

C. **Specimen storage and preservation** If storage is required:
a. Label aliquot tube with patient's full name, DOB, date and time of draw, and collector's initials.
b. Using disposable plastic pipette (exact calibrated volume not indicated for aliquot procedure) carefully remove cell free serum from patient tube and dispense into aliquot tube

VII. Conditions for specimen transportation.

The laboratory follows the manufacturer's or referral laboratory's instructions, as appropriate, for transport of specimens in all cases.

1. On site – specimens should be transported within the hospital to the laboratory in as short a time period as possible. Specimen agitation should be kept to a minimum to avoid hemolysis.

2. External sites, including physician offices, home health services, and nursing home collection specimens, must be transported in a biohazard labeled secondary container which is maintained in an upright position throughout transport which is leak-proof on the sides and bottom which minimized extreme temperature changes. Ice packs and specimen tubes must be separated by several layers of disposable towels to prevent hemolysis.

3. Special handling considerations must be applied for certain tests. These handling instructions can be found in the LabCorp collection book, on the LabCorp website, and laboratory instrument operating manuals/procedure manuals.

Chilled specimen – chilling of specimens form 2-8°C inhibits the metabolism of blood cells and stabilized certain labile constituents such as ammonia, rennin, and lactate. To properly chill specimens, place tube in either crushed ice or a mixture of ice and water. Specimen should be completely immersed in the cooling medium, specimen should remain chilled until the time of centrifugation and analysis.

Routine urines – urine specimens will be collected by appropriate personnel and transported to the lab in a securely closed urine container within properly closed transport bags. Lab test request form must accompany specimen in external pouch.

6. Specimen processing: Specimen processing includes receiving the specimen, accessioning the specimen, preparing the specimen for in-house analysis, preparation to send to a reference laboratory, preparing slides, and inoculating primary culture media such as urine culture tubes, etc.

The laboratory has a system in place to differentiate specimens that have similar names or identification information. Hospital number and/or social security number must be used.

Timed patient specimens (e.g. peaks and troughs): Specimens should be received as soon as possible after collection to allow sorting and separation of the specimens.

Specimens are distributed to each clinical area as necessary. Those requiring centrifugation are placed on centrifuge counter until clotted. Timed or STAT specimens are designated as such by writing on the lab request form. The STAT orders are put in the computer system as a STAT order so the labels will have the word STAT on them.

Specimens should be centrifuged within 2 hours after collection: To obtain serum, red top tube should be allowed to stand a minimum of 30 - 60 minutes for clot formation to occur. Yellow top tubes contain clot activator so clot formation time is decreased.

Anti-coagulated specimens can be centrifuged within minutes after collection. Be sure to check for clotting. Rocking the tube back and forth is usually enough for an adequate check. You can also check the specimen

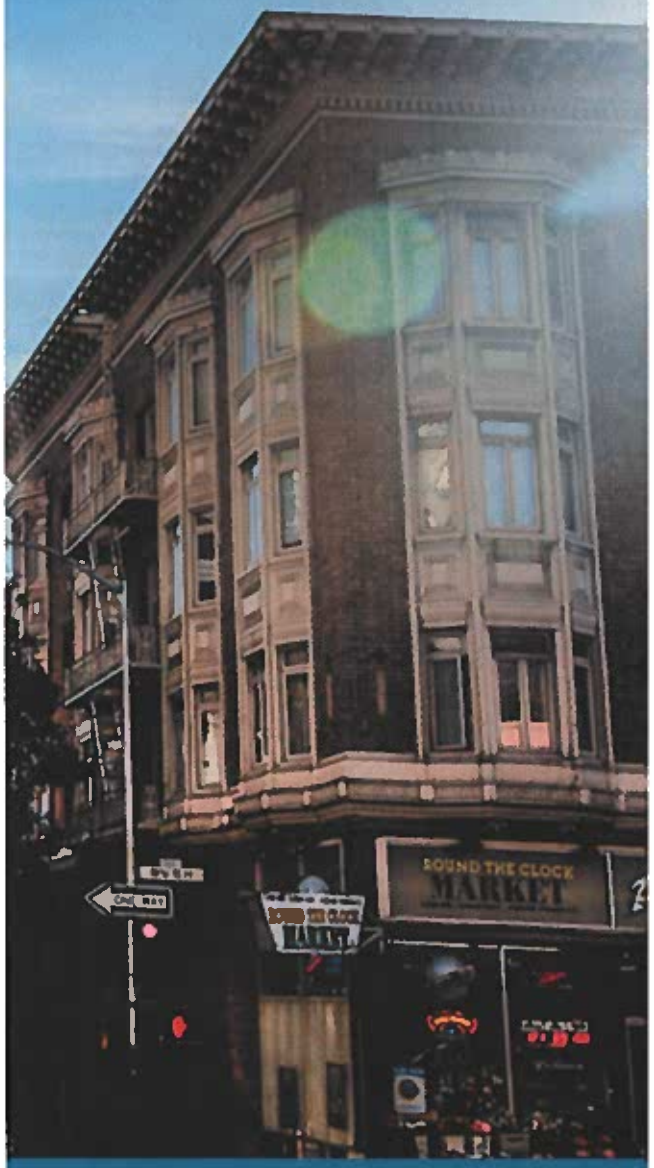
using a wood applicator stick if you cannot see the blood clearly. The clot will adhere to the stick and cling to it when removed. If a clot is present, request a re-stick.

Tubes should remain stoppered from collection until analysis thus preventing an increase in pH, exogenous contamination, and preventing evaporation.

Note on patient report if a "timed collection" (I.E. peak/trough drug level, glucose tolerance testing, cardiac markers) is not drawn at appropriate time and document reason on appropriate QA form. In cases where a specimen is received without a written request, a verbal request can be accepted. Test will be performed within time limit due to integrity of specimen, i.e. coagulation studies or and emergency (i.e. trauma), but results held until written test request form is received.

Urine drug screens – allow urine to equilibrate to room temperature before analyzing. Also turbid specimens must be centrifuged and supernatant used for analysis.

SPECIMEN REJECTION AND REFERRAL



SEPTEMBER 21

Acadian Medical Center

ACADIAN MEDICAL CENTER

DEPT: Laboratory

Specimen Rejection Policy	PAGE: 1 OF 2	

Specimen acceptability and rejection: Criteria for specimen acceptability and rejection must include the disposition of the rejected specimen(s). The laboratory should promptly notify the authorized person when a specimen meets its rejection criteria and is unsuitable for testing.

Criteria for Specimen Rejection:

1) Clot formation in an anti-coagulated tube
2) Wrong color top tube was collected.
3) Inadequate volume in an additive tube.
4) Tubes for hematology (purple top) must be 1/2 full for testing
5) Blue top tubes for coagulation testing must be full.
6) Hemolysis is noted in any collection tube.
7) Collection tube for ammonia not kept on ice or not tested within 30 minutes of collection.
8) Specimen received unlabeled.
9) Cultures collected in a leaking container.
10) Urine samples with obvious stool contamination.
11) Blood Bank specimens improperly labeled.
12) Sample received is clearly mislabeled.
13) Incomplete or missing requisition form.
14) Failure to store samples properly for delivery to laboratory.
15) Broken or leaking containers.

Specimens must be checked for hemolysis, lipemia, and icteria. If any of these conditions are found in the specimen, note the condition on patient report using the following options:

This specimen is (*), therefore, test results may be affected.

* Slightly lipemic

* Moderately lipemic

*Grossly lipemic

ACADIAN MEDICAL CENTER

DEPT: Laboratory		
Specimen Rejection Policy	**PAGE: 2 OF 2**	

* Slightly icteric
* Moderately icteric
* Grossly icteric
* Slightly hemolyzed
* Moderately hemolyzed
* Grossly hemolyzed

Hemolysis of specimen – excessive hemolysis can result from a difficult venipuncture or from improper handling of the collected blood. Hemolysis affects potassium, LDH, and plasma hemoglobin most significantly. A crossmatch or type and screen should never be performed on a hemolyzed specimen.

a) If possible, request a re-stick and inform appropriate nursing personnel of delay in testing if necessary. If unable to recollect specimen, note the degree of hemolysis on patient report.
b) If hemolysis exists upon re-stick, notify nurse or physician of condition and ask if they would like another re-stick. Request re-stick if desired, otherwise proceed with below.
c) Run test and call results to floor. Inform the degree of hemolysis and verbally give results. Release results stating on patient report the number of re-sticks obtained and degree of hemolysis remaining.
d) If analysis is performed on a suboptimal specimen as instructed by physician or on behalf of physician, document on patient report the name of person requesting analysis on suboptimal specimen.

Fecal contamination of urine specimens warrants recollection. If urine is brought to lab after working hours, it must be placed in refrigerator and time of receipt into lab logged on test request form and/or specimen log sheet. Refrigerate urines after two hours of collection to maintain specimen integrity in case of a possible urine culture request.

ACADIAN MEDICAL CENTER

DEPT: Laboratory

Specimen Referral	PAGE: 1 OF 1	UA 2

Specimen referral.

A. The laboratory has a current service manual available for each reference laboratory that it uses that contains the reference laboratory's specimen requirement for the test to be performed. The laboratory will refer a specimen for testing only to a CLIA-certified laboratory or a laboratory meeting equivalent requirements by CMS.
   i) Laboratory personnel are familiar with procedures to prepare and/or submit specimens to the appropriate reference laboratory.
   ii) The laboratory ensures that each reference laboratory has and maintains a current CLIA certificate. A copy of their certificate is requested and kept on file.

B. The laboratory must document the date and time it receives a specimen. When a sample is collected and brought to the lab, the date and time of receipt is recorded in the laboratory computer.

C. If the ***laboratory accepts a referral specimen***, written instructions must be available to the laboratory's clients and must include, as appropriate, the information specified in the Specimen Collection, Labeling, Handling, Storage and Transport Policy.
   i) The laboratory has provided written instructions to each client that sends specimens/test requests. The instructions may contain information on specimen handling (e.g. collection, preservation, storage, transport, testing schedule times and how to obtain additional assistance for unusual circumstances.

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ACADIAN MEDICAL CENTER

Reference Lab	PAGE: 1 OF 2	LAB - 54

POLICY:
It is the policy of the Clinical Laboratory Department to utilize outside reference services, with the approval from the Laboratory Medical Director and the Medical Staff to provide laboratory services and transport of specimens for those tests that are not performed at AMC laboratory.

Referral or consultation services shall be available and approved by the Medical Staff.
Clinical Reference Laboratories and/or Services shall be recommended to the Medical Staff for acceptance through its designated mechanism on an annual basis.

PROCEDURE:
The following is a list of referral laboratories utilized by Acadian Medical Center:

Laboratory Corporation of America (LabCorp)
Lafayette, Louisiana
337-233-5711

LifeShare Blood Center
Lake Charles, Louisiana
337-439-5851

United Blood Services
Lafayette, Louisiana
1-800-259-7640
337-235-2198

Women and Children's Hospital
Lafayette, Louisiana
337-521-9100

Prometheus Laboratory
San Diego, California
888-423-5227

Central Laboratory
Metairie, Louisiana
504-219-4413

Savoy Medical Center's Laboratory
Mamou, Louisiana
337-468-0140

Genoptix
2110 Rutherford Rd
Carlsbad, CA 92008
1-800-755-1605

Reliapath
Opelousas, Louisiana
337-948-8663

Mayo Medical Center
Rochester, MN
507-266-5700

Tulane Medical Center
New Orleans, Louisiana
504-988-5244

Office of Public Health
Metairie, Louisiana
504-219-4692

Opelousas General's Laboratory
Opelousas, Louisiana
337-948-5145

Applied Diagnostics
1140 Business Center Drive, Suite 370
Houston, Texas 77043
1-855-239-8378

Myriad Genetic Laboratories, Inc.
320 Wakara Way
Salt Lake City, Utah 84108

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ACADIAN MEDICAL CENTER

Reference Lab	PAGE: 2 OF 2	LAB - 54

REVIEW

This policy has been reviewed and approved:

Laboratory Medical Director Date

Chief of Medical Staff Date

Last Revised:
Last Reviewed
Adopted 7/2020

BLOOD COLLECTION FOR SPECIALTY TESTING

SEPTEMBER 21

Acadian Medical Center

DEPT: LABORATORY

ACADIAN MEDICAL CENTER

Blood Alcohol Collection Procedure	**PAGE:** 1 OF 2	**COLL**

I. Purpose:

Improper handling and processing of specimens can introduce test result imprecision or systematic bias before the tests are performed. Specific concerns include transport, proper specimen identification, prolonged contact of cells with serum or plasma, concentration changes due to evaporation or cell lysis, the use of serum separation devices, analyte deterioration because of improper storage, and the use of anticoagulants. Recognition and control of these variables will reduce error and contribute to the medical usefulness of patient test results. This procedure establishes criteria for an optimal specimen for analysis

II. Scope:

All Laboratory Departments

III. Definition of Terms:

A) Pre-centrifugation phase – the time period after specimen collection and before centrifugation.

IV. Equipment

A) Required Equipment for Specimen Collection – be sure the following materials are readily accessible before performing venipuncture:

1. Appropriate apparel i.e., gloves, eye protection, coats or gowns, and other appropriate apparel for protection from exposure to blood borne pathogens or other potentially infectious materials.
2. All necessary tubes, identified by size, draw and additive.
3. Labels for positive patient identification of samples. Must contain patient's first and last name, patient unique ID Number, date and time of collection and collectors initials.
4. Blood collection needles and holders.
5. **Non-alcohol based cleansing material for blood alcohol testing**.
6. Dry, clean disposable gauze.
7. Tourniquet (i.e., single use, latex free)
8. Adhesive plaster or bandage (i.e., hypoallergenic)
9. Approved biohazard container for needle disposal.

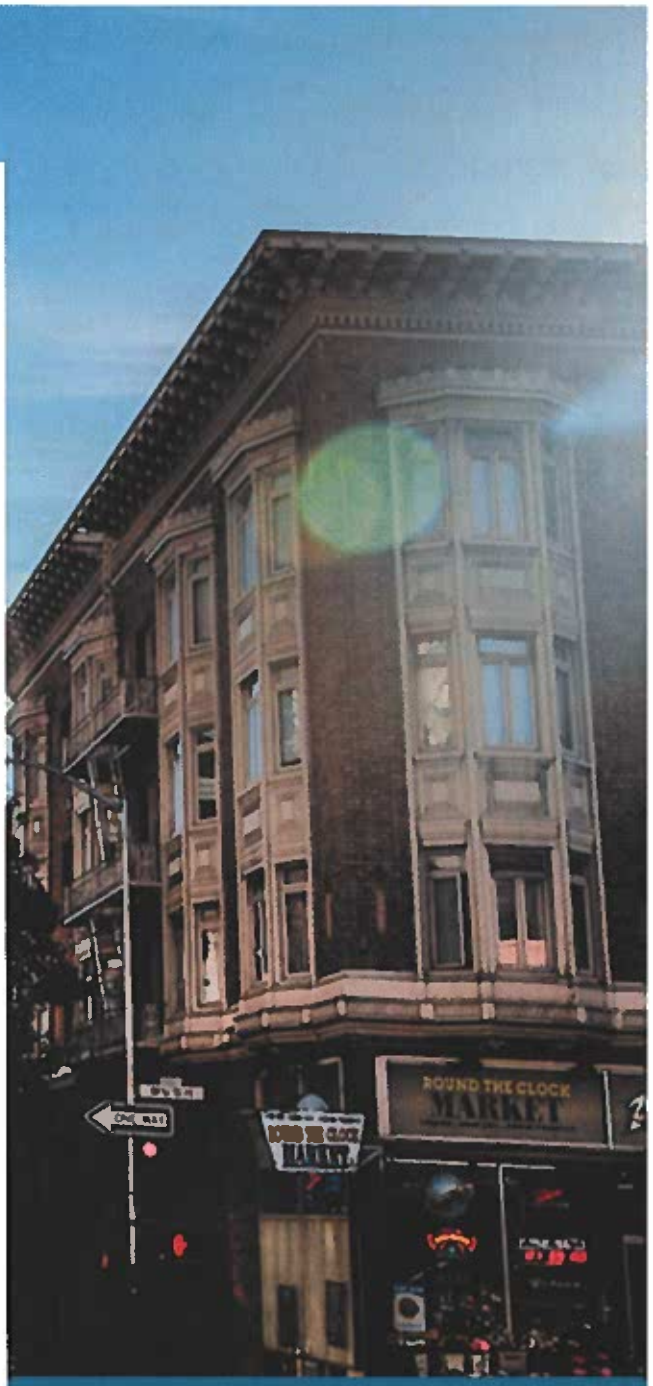
V. Procedure:

1. This assay requires serum (red top) or plasma (gray or green top).

2. **Follow laboratory Specimen Collection Policy and Procedure**.
3. Be sure the sample tube is kept tightly closed to prevent evaporation of alcohol.
4. Fluoride/oxalate tubes preserve alcohol by preventing glycolysis They are the preferred method for storing plasma specimens for ETOH analysis. EDTA, fluoride/oxalate, and heparin have been tested and may be used with Beckman Coulter ETOH analysis.
5. If not analyzed immediately, specimens may be stored refrigerated at 2-8 degrees Celsius for up to 3 days following collection.
6. Specimens with high turbidity should be centrifuged before analysis.
7. Do not open the tube until time to run test. After the test is performed, immediately restopper the tube.

References:
Beckman Coulter Emit II Plus Ethyl Alcohol Assay Insert.

MICROBIOLOGY SPECIMEN COLLECTION



SEPTEMBER 21

Acadian Medical Center

ACADIAN MEDICAL CENTER

TITLE: Blood Culture Collection	PAGE: 1 OF 6	

I. PRINCIPLE

The detection of microorganisms in a patient's blood has diagnostic and prognostic importance. Blood cultures are essential in the diagnosis and treatment of the etiologic agents of sepsis. Bacterial sepsis constitutes one of the most serious infectious diseases and, therefore, the expeditious detection and identification of bloodborne bacterial pathogens is an important function of the diagnostic microbiology laboratory.

II. MATERIAL NEEDED:

A. MEDIA

1. *BACTEC* PLUS Aerobic/F Culture Vial[1]

Optimum blood volume for each vial is 8 to 10 mL; 3 to 10 mL of blood is acceptable.

a. Each vial contains:

- 25 mL Enriched Soybean-Casein Digest broth (TSB)
- 0.05% Sodium Polyanetholesulfonate (SPS)
- Cationic and Non-ionic Adsorbing Resins
- Carbon dioxide (CO_2)
- Oxygen (O_2)
- Sensor for the detection of fluorescence

2. *BACTEC*™ PLUS Anaerobic/F Culture Vial[1]

Optimum blood volume for each vial is 8 to 10 mL; 3 to 10 mL of blood is acceptable.

a. Each vial contains:

- 25 mL pre-reduced enriched Soybean-Casein Digest broth.
- 0.05% SPS
- Resins
- CO_2 and Nitrogen gas (N_2)
- Sensor for the detection of fluorescence.

3. *BACTEC PEDS PLUS/F* Culture Vial[2]

Optimum blood volume for each vial is 1 to 3 mL; 0.5 to 5 mL of blood is acceptable.

a. Each vial contains:

- 40 mL Enriched Soybean-Casein Digest broth
- 0.02% SPS
- Resins
- CO_2
- O_2
- Sensor for the detection of fluorescence.

NOTE: All Blood Culture Vials are to be stored at 2° to 25° C.

B. APPROPRIATE APPAREL: gloves, eye protection, coats or gowns, and other appropriate apparel for protection from exposure to blood borne pathogens or other potentially infectious materials.

C. LABELS: For patient identification of samples; must include patient's first and last name, patient uniques identifier number, date and time of collection and collectors initials.

D. Blood Collection Needles and Holders.

E. Non-alcohol based cleaning material: Examples are Tincture of Iodine or other suitable alternative for sterile collection.

F. Dry clean disposable gauze

G. Tourniquet (i.e., single use, latex-free)

H. Adhesive bandage

I. Approved biohazard container for needle disposal

III. SPECIMEN COLLECTION

1. SITE SELECTION

a. Select a different body site for each culture drawn.

b. Avoid drawing blood through indwelling intravascular catheters unless blood can not be obtained by venipuncture. Blood collected from intravascular catheters should be done with the knowledge that contamination may be an issue.

2. SITE PREPARATION

a. Locate the vein to be used.
b. If patient is < 2 months old, using an isopropanol soaked pad (70% isopropanol or ethyl alcohol), scrub skin vigorously for 60 seconds.
c. Allow to dry.
d. If patient is >2 months old, a ChloraPrep Single Swabstick (2% Chlorhexidine) is used in place of Isopropanol.
e. Apply using repeated back and forth strokes of the applicator for approximately 30 seconds.
f. Allow to dry. Do not blot or wipe away.
g. Remove flip-off caps from Bactec culture vials and inspect the vial for cracks, contamination, excessive cloudiness, and bulging or indented stoppers. **DO NOT USE** if any defect is noted.
h. Wipe tops of vials with single alcohol swab and allow to dry.
i. Using aseptic technique, attach needle to syringe.
j. Insert the needle into the prepared vein and collect 10 to 20 ml blood in syringe.

Note: Avoid drawing blood through indwelling intravenous or intra-arterial catheters unless blood cannot be obtained through venipuncture.

k. Distribute blood equally into aerobic and anaerobic vials.

3. DISINFECTING BLOOD CULTURE VIALS-

a. Remove the flip-off caps from BACTEC culture vials.

a. Wipe top of each vial with a separate 70% isopropyl alcohol pad and allow to dry.

c. Do not use iodine to disinfect tops of vials.

4. VENIPUNCTURE

a. Avoid touching the venipuncture site. If it is necessary to touch the site after it has been cleaned, wipe your fingers with povidone iodine before touching the site.

b. When using the Blood Collection Set ("butterfly") the phlebotomist **MUST** carefully monitor the volume collected by using the 5 mL graduation marks on the vial label. If the volume is not monitored, the stated maximum amount collected may be exceeded. This condition may adversely create a 'false' positive result, due to high blood background.

c. If using a needle and syringe, typically a 20 mL syringe is used for adults. Draw 16 to 20 mL of blood for one blood culture set (aerobic and anaerobic). Aseptically inject 8 to 10 mL of specimen into each vial.

d. For pediatric patients, a 3 mL syringe is frequently used. Draw 1 to 3 mL of blood and transfer the entire amount into ***BACTEC™*** *PEDS PLUS*/F vial.

c. After all specimens have been collected, use a sterile alcohol pad to remove the povidone-iodine solution.

g. Continue to care for the collection site following guidelines recommended by your institution.

The inoculated *BACTEC* vials should be transported as quickly as possible to the laboratory.

B. VOLUME

The volume of blood cultured is critical because the number of organisms per mL of blood in most cases of bacteremia is low, especially if the patient is on antimicrobial therapy. In infants and children, the number of organisms per mL of blood during bacteremia is higher than adults, so less blood is required for culture.[6]

1. Children: 1 to 5 mL of blood per venipuncture. Transfer the entire amount to a ***BACTEC™*** *PEDS PLUS*/F vial.

2. Adult: 16 to 20 mL of blood per venipuncture. If it is impossible to draw the required amount, aliquot as follows:

Amount per Venipuncture	Amount in *BACTEC* Plus Aerobic Vial	Amount in *BACTEC* Plus Anaerobic Vial
16-20 mL	Split equally between aerobic and anaerobic vials	

13-16 mL	8 mL	5 - 8 mL
10-12 mL	5 - 7 mL	5 mL
5-9 mL	entire blood amount	0

NOTE: Optimum recovery of isolates will be achieved by adding 8 to 10 mL of blood (***BACTEC*** *PEDS PLUS*/F: 1 - 3 mL; ***BACTEC*** MYCO/F LYTIC - 3 to 5 mL). The use of lower or higher volumes may adversely affect recovery and/or detection times.

C. SPECIMEN LABELING

1. Each vial should be labeled with the appropriate patient information:

- Patient's First and Last Name
- Appropriate 2nd Identifier (Date of Birth)
- Date and time of collection
- Collector's initials
- Sample Type / Source for Culture

D. NUMBER AND TIMING

Most cases of bacteremia are detected using two to three sets of separately collected blood cultures. More than three sets of blood cultures yield little additional information. Conversely, a single blood culture may miss intermittently occurring bacteremia and make it difficult to interpret the clinical significance of certain isolated organisms.[6]

VI. LIMITATIONS: Contamination

Care must be taken to prevent contamination of the sample during collection and inoculation into the *BACTEC*™ vials. A contaminated sample will give a positive reading, but this does not indicate a clinically significant result.

General Considerations

Optimum recovery of isolates will be achieved by adding the appropriate volume of blood for the type of vial inoculated. Use of lower or higher volumes may adversely affect recovery and/or detection times. Blood may contain antimicrobials or other inhibitors which may slow or prevent the growth of microorganisms. False negative readings may result when certain organisms do not produce enough CO_2 to be detected by the system or if significant growth has occurred before placing the vial into the system. False positivity may occur when the white blood cell count is high.

VII. REFERENCES

1. *BACTEC*™ PLUS Aerobic/F and PLUS Anaerobic/F Culture Vials Insert. Rev. PP-088E BD Biosciences.

2. *BACTEC*™ *PEDS PLUS*/F Culture Vials Insert.Rev. PP-091-I. BD Biosciences.

3. *BACTEC* MYCO/F LYTIC Culture Vials Insert.Rev. PP-162C. BD Biosciences.

4. *BACTEC* Blood Culture Procedural Trays. Document Number L-001810 (A). BD Biosciences.

7. Isenberg, H.D. editor in chief. 1992. Clinical Microbiology Procedures Handbook. American Society for Microbiology, Washington, DC.

8. Balows, A. *et al.* Manual of Clinical Microbiology. 6th ed. American Society for Microbiology, Washington, DC, 1995.

9. Howden, R.J. J. Clin. Path. 1976, *29*:50-53.

10. Bloodborne Pathogens. Code of Federal Regulations, Title 29, Part 1910.1030 Federal Register 1991, *56*:64175-64182.

DEPT: LABORATORY

ACADIAN MEDICAL CENTER

Midstream Clean Catch Urine Collection Procedure	PAGE: 1 OF 2	COLL 12

Materials Required

- Mid-stream Clean Catch Collection Kit
- Written Instructions for the patient (to be provided upon request)
- Supplies for labeling the container

Procedure

1. Patient identification must have 2 unique identifiers on each patient, one being name and the other being account number or date of birth (ER and Outpatient).
2. READ THE PATIENT THE INSTRUCTIONS. Explain instructions to the patient and give him or her a written copy if requested.

A. FEMALE:

1. Wash hands thoroughly with soap and water. Dry hands.
2. Tear edge off towelette package. Do not remove towelette from package yet.
3. Separate labia (folds covering opening from which you urinate) with one hand. With the other hand, remove the towelette from the package and unfold it. Use one edge of the towelette to cleanse the meatus (opening from which you urinate) and surrounding area well using a downward stroke (front to back). Discard the towelette in the wastebasket.
4. Repeat the cleaning with the two remaining towelettes.
5. Clasp the white lid by the tab and remove to prepare to collect the specimen.
6. Begin urinating in the toilet, then catch a stream of urine directly into the container. Avoid touching the top rim of the container or the inside of the container. Do not fill the container to the top. Finish urinating in the toilet.
7. Unscrew the protective collar (green) from the container and discard.
8. Without touching the specimen container cap, pick up the white lid and screw the cap onto the container.
9. Wash hands when completed.
10. Give container with urine to lab or nursing personnel.

B. Male:

1. Wash hands thoroughly with soap and water. Dry hands.
2. Tear edge off of towelette package. Do not remove towelette from package yet.
3. Hold foreskin back with one hand. With the other hand, remove the towelette from the package and cleanse the meatus (opening from which you urinate) well using a circular motion from center to outward. Discard the towelette in the wastebasket.
4. Repeat the cleaning with the two remaining towelettes.
5. Clasp the white lid by the tab and remove to prepare to collect the specimen.
6. Begin to urinate in the toilet, then catch a stream of urine directly into the container. Do not fill the container to the top. Avoid touching the top rim of the container or the inside of the container. Finish urinating in the toilet.

7. Unscrew the protective collar (green) from the container and discard.
8. Without touching the specimen container cap, pick up the white lid and screw the cap onto the container.
9. Wash and dry hands.
10. Give the specimen to lab or nursing personnel.

3. GUIDE THE PATIENT TO THE BATHROOM where the specimen may be collected. Assist any patient who may need assistance such as the old, weak, or obese.
4. LABEL URINE CONTAINER in accordance with the specimen labeling policy. Use the permanent marking pen. Affix the label to the urine container, not the cap.
5. Transport the urine specimen to the laboratory as soon as possible. If transport is delayed, the specimen should be refrigerated as not to compromise the integrity of the specimen.

SPECIAL CIRCUMSTANCES

None

HANDLING CONSIDERATIONS

Universal Precautions apply. Gloves must be worn.

A urine specimen should be tested immediately upon collection. If this is not possible, it should be tightly capped and refrigerated. All specimens should be processed within 2 hours. Any refrigerated specimen should be warmed to room temperature before testing.

SOURCES OF ERROR

1. If the specimen is not used immediately, changes will take place in the microorganism levels found in urine. Prolonged storage of urine specimens may result in clinically significant differences in urine microorganism populations.
2. Refrigerated urine specimens may have different crystal structures than room-temperature specimens.
3. Patient cooperation is essential in obtaining a culturable urine specimen.
4. Extraneous bacterial contamination may result from:
    - Bacteria from the hands, skin or clothing.
    - hair form the perineum falling into the collecting receptacle.
    - Bacteria beneath the prepuce in males may contaminate the stream.
    - Bacteria from vaginal secretions or distal urethra in females may contaminate the stream.

REFERENCES

Bard® Mid-stream Urine Collector, package insert
Collection and Handling of Laboratory Specimens, A Practical Guide
P. 104; The Mayo Foundation

Last Revised:
Last Reviewed:
Adopted 7/2020

DEPT: LABORATORY

ACADIAN MEDICAL CENTER

Routine Culture Collection Procedure	**PAGE:** 1 OF 5	**COLL 15**

Purpose

Good laboratory technique begins with the proper collection of specimens. The laboratory depends on the personnel assigned to specimen collection to prepare the patient properly and to obtain and adequate amount of the right type of specimen. At the same time, the laboratory depends on these personnel not to unduly inconvenience or discomfort the patient and not to mishandle the specimen so as to ruin it for testing.

The intimate contact demands that personnel treat patients with the utmost of courtesy. This should encourage more complete cooperation of the patient and thus lead to better specimens. Courteous treatment includes politeness, preparation and expertise.

Responsibility

1. Laboratory Personnel
2. Nursing Services

Policy

Routine culture collection on outpatients shall be performed by the laboratory personnel. Routine culture collection on ambulatory, observation and inpatients shall be performed by nursing personnel.

General Considerations

Microorganisms can exist and remain viable on practically all environmental surfaces, especially the hands. Furthermore, many areas of the body have large numbers of various types of microorganisms occurring there normally, termed normal flora. To avoid contamination of the culture source desired by environmental microorganisms or by normal flora, strict aseptic technique and particular attention to the individual procedures must be followed. A second precaution to be observed is that specimens for culture should be transported to the laboratory department as soon as possible to prevent loss of viability of any pathogens in the specimen.

Call the laboratory with any questions prior to beginning the collection procedures.

Note: All required culture swabs and transport media should be obtained through the laboratory.

THROAT, Bacteria and Fungus:

Material:

- Sterile swab (calcium alginate swab is preferable)
- Tongue depressor
- Carrier media

Procedure:

1. Patient identification must have 2 unique identifiers on each patient, one being name and the other being account number.
2. Peel open aerobic/anaerobic culturette package.
3. Grasp culturette touching only the blue tip using aseptic technique.
4. Swab the desired source/site.
5. Remove the opaque cap from the transport tube using aseptic technique and discard. Place the swab down into the transport media. Seal cap lightly. Never refrigerate.
6. Label the transport tube as per the specimen labeling policy and transport to the laboratory
   Note: It is important to also include the source and/or site on the label.

NASAL, Bacteria and Fungus:
Material:

- Sterile wire swab (calcium alginate swab is preferable)
- Carrier media

Procedure:

1. Patient identification must have 2 unique identifiers on each patient, one being name and the other being account number.
2. Peel open aerobic/anaerobic culturette package.
3. Grasp culturette touching only the tip using aseptic technique.
4. Swab the desired source/site. Insert swab into nasal passage until it meets gentle resistance. Swirl around to collect specimen.
5. Remove the opaque cap from the transport tube using aseptic technique and discard. Place the swab down into the transport media. Seal cap lightly. Never refrigerate.
6. Label the transport tube as per the specimen labeling policy and transport to the laboratory
   Note: It is important to also include the source and/or site on the label.

EAR, Bacteria and Fungus:
Material:

- Wire swab (preferably calcium alginate), sterile
- Carrier media

Procedure:

1. Patient identification must have 2 unique identifiers on each patient, one being name and the other being account number.
2. Open package with wire swab using aseptic technique.
3. Insert swab into ear, being careful to avoid touching outer ear.
4. When swab is comfortably inside patient's ear, swirl to collect specimen.
5. Remove swab again trying to avoid touching outer ear.

6. Remove cap on carrier medium tube and push swab in. Cut wire with scissors below portion that was handled. Replace cap.
7. Label the transport tube as per the specimen labeling policy and transport to the laboratory.

Note: It is important to also include the source and/or site on the label.

EYE, Bacteria and Fungus

Material:

- Sterile, wire swab (calcium alginate swab is preferable)
- Tube of carrier media

Procedure:

1. Patient identification must have 2 unique identifiers on each patient, one being name and the other being account number.
2. Remove swab from package.
3. Holding eye open with forefinger and thumb of one hand, swab mucous membrane of eye especially area that may have an accumulation of pus.
4. Place swab into carrier medium and cut wire with scissors below portion that was handled.
5. Label the transport tube as per the specimen labeling policy and transport to the laboratory.

Note: It is important to also include the source and/or site on the label.

SPUTUM, Bacteria, fungus, AFB:

Material:

- Wide mouth sterile specimen container with screw cap

Procedure:

1. Patient identification must have 2 unique identifiers on each patient, one being name and the other being account number.
2. Have patient rinse mouth well before collection and then raise sputum by coughing.
   - Note: Early morning collection and immediate transport to the lab is recommended. 24 hour sputum is satisfactory for AFB but not for routine or fungus cultures.
3. Label the specimen container as per the specimen labeling policy and transport to the laboratory.

Note: It is important to also include the source and/or site on the label.

SKIN LESIONS, Bacteria:

Material:

- Sterile swab
- Carrier media
- 70% alcohol

- Cotton balls or gauze

Procedure:

1. Patient identification must have 2 unique identifiers on each patient, one being name and the other being account number.
2. Peel open aerobic/anaerobic culturette package.
3. Grasp culturette touching only the tip using aseptic technique.
4. Swab the desired source/site. Insert swab into nasal passage until it meets gentle resistance. Swirl around to collect specimen.
5. Remove the opaque cap from the transport tube using aseptic technique and discard. Place the swab down into the transport media. Seal cap lightly. Never refrigerate.
6. Label the transport tube as per the specimen labeling policy and transport to the laboratory.

Note: It is important to also include the source and/or site on the label.

SKIN, HAIR, NAILS, Fungi:

SKIN

Material:

- 70% alcohol (or sterile distilled water)
- gauze
- scalpel or lancet
- sterile specimen container

Procedure:

1. Patient identification must have 2 unique identifiers on each patient, one being name and the other being account number.
2. Clean area with 70% alcohol (or sterile water if area is inflamed).
3. Scrape with blade or long edge of lancet along the border of the lesion. Procedure should be performed so that scrapings fall directly into the sterile specimen container.
4. Label the specimen container as per the specimen labeling policy and transport to the laboratory.

Note: It is important to also include the source and/or site on the label.

NAIL

Material:

- 70% alcohol (or sterile distilled water)
- gauze
- scalpel or lancet

- sterile specimen container

Procedure:

1. Patient identification must have 2 unique identifiers on each patient, one being name and the other being account number.
2. Scrub briskly with alcohol-soaked gauze.
3. Select crumbled or discolored area of nail.
4. Scrape top and bottom of nail, allowing scrapings to fall directly into specimen container.
5. Label the specimen container as per the specimen labeling policy and transport to the laboratory.

Note: It is important to also include the source and/or site on the label.

HAIR

Material:

- Forceps (preferably toothless)
- Sterile specimen container

Procedure:

1. Patient identification must have 2 unique identifiers on each patient, one being name and the other being account number.
2. Remove with forceps about 15 hairs appearing infected.
3. Place in sterile specimen container.
4. Label the specimen container as per the specimen labeling policy and transport to the laboratory.

Note: It is important to also include the source and/or site on the label.

Reference:

Manual of Clinical Microbiology , fifth edition.
BBl Cultureswab Plus, package.

DEPT: LABORATORY

ACADIAN MEDICAL CENTER

Collection of Throat Swab for Rapid Tests	**PAGE:** 1 OF 1	**COLL 6**

Purpose

Rapid screening tests for bacterial and viral antigens may require throat swabs to be collected on special collection swabs provided with the rapid screening kit. This procedure is to assure that the appropriate collection swab and collection procedure be utilized.

Policy

Throat swabs for rapid screening test procedures shall be obtained by competent laboratory personnel.

Material Required

1. Tongue Depressor
2. Appropriate swab as per procedure:
   - Strep A Screen – swab provided with the kit

Collection Procedure

1. Properly identify the patient using 2 unique identifiers as per policy.
2. Ask the patient to open his/her mouth.
3. Depress the tongue completely with the tongue depressor. It often helps with children to ask them to "pant like a dog". Most adults are more comfortable with making an "EHHH" sound as in "less".
4. Using the appropriate swab, vigorously swab each tonsillar pillar and the posterior pharyngeal wall. Any visible exudates should also be swabbed. Use one continuous motion during the collection. Correct technique will results in discomfort for the patient.
5. Label the specimen in accordance with the specimen labeling policy and transport to the laboratory as soon as possible.

Sources of Error

The most common error in throat swab collection is not using enough vigor during the swabbing. It is essential that the swab be inundated with exudates from the patient's throat.

References:

Sophia Strep A Screen Package Insert.

Last Revised:
Last Reviewed:
Adopted: 7/2020

DEPT: MICROBIOLOGY

ACADIAN MEDICAL CENTER

TITLE: Sputum Cultures	**PAGE:** 1 OF 2	**Micro – 15.0**

PRINCIPLE

Bacterial pneumonia, pulmonary tuberculosis, and chronic bronchitis constitute a most important group of human diseases. Since specific treatment frequently depends on a bacteriological diagnosis, the prompt and accurate examination of a properly collected sputum specimen by smear, culture, and antimicrobial susceptibility testing is imperative. This is particularly true in pneumonia caused by *Klebsiella pneumonia* and *Staphylococcus aureus*, which may be more rapidly fatal than that caused by *Streptococcus pneumonia*. Furthermore, other bacterial species, including the gram-negative enteric bacilli, *Pseudomonas aeruginosa*, and *Haemophilus influenza*, are being reported in hospital associated pneumonia in the debilitated patient.

Sputum cultures may contain any one or more of numerous genera of bacteria such as gram-negative rods (including Haemphilus species), Neisseria, Staphylococcus, and Streptococcus. Fungi may also be isolated from sputum cultures. If fungi are found, yeast is reported and the plates are sent to a Reference Laboratory for identification upon request.

Normal flora includes, but is not limited to: A varied microbial flora is found in the oral cavity. Prominent organisms would be Neisseria, Bordetella, Corynebacterium, and Streptococcus spp.

SPECIMEN

Sputum obtained for culture should be from a deep cough which is collected in a sterile container. The volume of specimen should be 1 to 3 ml. Prior to setting up sputum cultures, acceptability for culturing must be determined by grading. A purulent portion of the sputum should be transferred to a clean microscope slide, gram stained and examined. On **Expectorated Sputum** the most reliable specimen has less than 10 epithelial cells and more than 25 leukocytes per low-power field. Also acceptable would be sputum specimens with fewer than 25 epithelial cells regardless of leukocyte presence per low-power field. **If these criteria are not met**, another specimen should be collected ASAP and acceptability for culturing determined again. Unacceptable samples are not cultured (unless specifically requested by a physician). Otherwise, specimen will be canceled, the nurse in charge is notified so another specimen can be collected and ordered.

Do not reject any **Induced Sputum** specimens. **If these criteria are met,** continue with gram stain procedure. Note externally in sputum report the number of epithelial and WBCs. Do not finalize the report.

REAGENTS

Sterile Swab	Fisher
Loop	Fisher
Blood Agar	BBL Laboratory
Chocolate Agar	BBL Laboratory
MacConkey Agar	BBL Laboratory
Co2 Incubator	Thermo Scientific

Adopted: 7/2020
Last Reviewed:
Last Revised:

DEPT: MICROBIOLOGY

ACADIAN MEDICAL CENTER

TITLE: Sputum Cultures	**PAGE:** 2 OF 2	**Micro – 15.0**

PROCEDURE

Ensure proper specimen / patient identification protocols are followed per Micro-1.0

Once gram stain is done and sputum is acceptable:

1. Inoculate Blood, Chocolate, BHI and MacConkey Agar with sterile swab or loop.
2. Perform isolation streaking on each plate.
3. Incubate at 35 degrees C in Co2 environment.
4. Read and report results at 24 and 48 hours.
5. Discard plates in acceptable biological wastebasket.

RESULTS

Report using the LIS microbiology module's on-line workcard and canned text comments. (complete list of comments will be posted on the microbiology workbench. In addition, it can be viewed on-line in the LIS.

Sputum Acceptability Reporting

Report as:

1. "<10>25" for "<10 epithelial cells and more than 25 leukocytes per low-powered field = acceptable specimen
   or
2. "<25" for "<25 epithelial cells per low-powered field = acceptable specimen

Culture Reporting

Read at 24 and 48 hours

If negative, use "NG24" for No Growth at 24 hours (preliminary) and "NG48" for No Growth at 48 hours (Final).

If positive, report as "ADTST" for ID/MIC to Follow. Set up panels on Microscan for any growth.

REFERENCE

Bailey and Scott's Diagnostic Microbiology, 9th Edition, 1994, Mosby, Inc.
St. Louis, p. 228 - 233.
Isenberg, H.D. 1992. Lower Respiratory Tract Specimens, Vol 2., p. 1.15.1, Clinical Microbiology Handbook.
American Society for Microbiology.

Adopted: 7/2020
Last Reviewed:
Last Revised:

DEPT: MICROBIOLOGY

ACADIAN MEDICAL CENTER

TITLE: Routine & Wound Cultures	**PAGE:** 1 OF 2	**Micro – 14.0**

PRINCIPLE

The microbial flora of infected wounds frequently is varied. Soft tissue and skin infections result primarily from a break in the skin surface. Wound infections can occur as complications of surgery, trauma, and bites or diseases that interrupt a mucosal skin surface.

Normal flora includes, but is not limited to: normal flora from a routine/wound culture could be viewed as normal skin flora. These organisms would include Candida, Micrococcus, Staphylococcus, Clostridium, Propionibacterium, and Diphtheroid spp.

Typical Pathogens include, but is not limited to: Staphylococcus aureus, Streptococcus pyogenes, and other organisms that grow as pure cultures.

SPECIMEN

1. The most desirable method of collection is aspirating material from the depths of the wound with a sterile needle and syringe.
2. If material cannot be obtained with a needle and syringe, a swab must be used to collect the specimen. The skin should be cleansed with sterile saline and/or 70% alcohol. The swab should be extended deep into the wound, taking care not to touch the adjacent skin areas.
3. If tissue or fluid is collected, it should be in a sterile container without a preservative. Sterile saline is acceptable

REAGENTS

Loop	Fisher
Blood Agar	BBL
MacConkey Agar	BBL
Chocolate Agar	BBL
THIO Broth	BBL

DEPT: MICROBIOLOGY

ACADIAN MEDICAL CENTER

TITLE: Routine & Wound Cultures	**PAGE:** 2 OF 2	**Micro – 14.0**

PROCEDURE

Ensure proper specimen / patient identification protocols are followed per Micro-1.0

With one swab, inoculate the Blood, Chocolate, and MacConkey plates using the isolation streaking technique. Put the same swab used to streak the plates in the Thio broth. Use the other swab for the gram stain and then discard. Incubate all media in a 35 degree C - CO2 incubator. Gram stains are reported using the LIS microbiology module immediately if ordered.

RESULTS

Report using the LIS microbiology module's on-line workcard and canned text comments. (complete list of comments will be posted on the microbiology workbench. In addition, it can be viewed on-line in the LIS.

Read at 24 and 48 hours

If negative, use "NG24" for No Growth at 24 hours (preliminary) and "NG48" for No Growth at 48 hours (Final).

If positive, report as "ADTST" for ID/MIC to Follow. Set up panels on Microscan for any growth.

REFERENCE

1. Bailey and Scott's Diagnostic Microbiology, 9th Edition, 1994, Mosby, Inc., St. Louis, p. 274 - 283 and 63.

Adopted: 7/2020
Last Reviewed:
Last Revised:

DEPT: LABORATORY

ACADIAN MEDICAL CENTER

Anaerobic Culture Collection Procedure	PAGE: 1 OF 2	COLL 2

Policy

Routine culture collection on outpatients shall be performed by the laboratory personnel. Routine culture collection on ambulatory, observation and inpatients shall be performed by nursing personnel.

Responsibility

1. Laboratory Personnel
2. Nursing Services

General Considerations

Microorganisms can exist and remain viable on practically all environmental surfaces, especially the hands. Furthermore, many areas of the body have large numbers of various types of microorganisms occurring there normally, termed normal flora. To avoid contamination of the culture source desired by environmental microorganisms or by normal flora, strict aseptic technique and particular attention to the individual procedures must be followed. A second precaution to be observed is that specimens for culture should be transported to the laboratory department as soon as possible to prevent loss of viability of any pathogens in the specimen.

Note: All required culture swabs and transport media should be obtained through the laboratory.

SPECIMENS ACCEPTABLE FOR ANAEROBIC CULTURING

1. Body Fluids - Ascitic, cerebrospinal, pericardial, pleural, prostatic, seminal, synovial, thoracentesis, bile, bone marrow transudate.
2. Exudates - Aspirated pus from wounds or abscess, or if "sulfur granules" are present.
3. Genital Specimens -
   - Female - Material from placenta, glands, culdocentesis, endometrium fallopian tube.
   - Male - Prostatic or seminal fluids.
4. Lesions - Material from gallbladder, etc.
5. Surgical Specimens - Material from gallbladder, etc.
6. Respiratory - Transtracheal aspirate.
7. Urine - Suprapubic aspiration.

SPECIMENS NOT ACCEPTABLE FOR ANAEROBIC CULTURE

1. Exudate - Pus from superficial wounds or abscesses.
2. Genital Specimens -
   - Female - Vaginal, cervical, or uretheral swabs.

- Male - Urethral swabs.

3. Lesions - Material from burns, cysts or ulcers.
4. Respiratory - Throat, tonsillar, nasal, nasopharyngeal, or ear swabs; bronchial washings, expectorated sputum.
1. Gastrointestinal - Stool or rectal swab.
2. Urine - Voided or catheterized urine.

Note: The collection and transport culture swab shall be obtained from the laboratory.

Procedure for Collection by Swab

1. Peel open aerobic/anaerobic culturette package.
2. Grasp culturette touching only the blue tip using aseptic technique.
3. Swab the desired source/site.
4. Remove the opaque cap from the transport tube using aseptic technique and discard. Place the swab down into the transport media. Seal cap lightly. Never refrigerate.
5. Label the transport tube as per the specimen labeling policy and transport to the laboratory.

Note: It is important to also include the source and/or site on the label.

Collection of Liquid or Purulent Specimen

1. Collect specimen with sterile syringe and needle. Expel air trapped in syringe.
2. Remove the needle and replace with a blunt device.
3. Peel open aerobic/anaerobic culturette package.
4. Grasp culturette touching only the blue tip using aseptic technique.
5. Inoculate the swab with a few drops of the specimen from the syringe using aseptic technique.
6. Remove the opaque cap from the transport tube using aseptic technique and discard. Place the swab down into the transport media. Seal cap lightly. Never refrigerate.
7. Label the transport tube as per the specimen labeling policy and transport to the laboratory along with the labeled syringe.

Note: It is important to also include the source and/or site on the label.

Reference:

Manual of Clinical Microbiology , fifth edition.
BBl Cultureswab Plus, package.

DEPT: LABORATORY

ACADIAN MEDICAL CENTER

Stool Collection Procedure	**PAGE:** 1 OF 2	**COLL 18**

General Considerations

Stool specimens can satisfactorily and usually more conveniently be obtained at home. To ensure proper collection, adequate instructions must be given to the patient, or to a responsible party in cases of bedridden, incapacitated or pediatric patients. Because of the large numbers of bacteria normally present, sterile containers and aseptic technique are unnecessary, even for microbiological studies.

- Products such as cathartics, laxatives and lubricants should not be used unless specifically instructed by the physician.
- Specimens may be collected in clean bedpans, diapers, etc. then transferred to the container provided; however, such collections must not be contaminated by urine.
- Specimens should be collected early enough during the day, then transported to the lab without delay or kept cool until brought to the lab.

Random Collection Procedure:

Use:
- Culture (and Sensitivity), Parasitology, Occult Blood, Trypsin, Qualitative test for Fat, etc.

Materials:
- Disposable Stool Cup
- One or two tongue blades

Procedure:

1. Label Stool Cup with patient's name (as it appears on the request slip) and account number/date of birth.
2. Instruct patient as follows:
    - Products such as cathartics, laxatives and lubricants should not be used unless specifically instructed by the physician.
    - Specimens may be collected in clean bedpans, diapers, etc. then transferred to the container provided; however, such collections must not be contaminated by urine.
    - Specimens should be collected early enough during the day, then transported to the lab without delay or kept cool until brought to the lab.

1. Collect a random stool into the container provided or transfer to the cup with the tongue blades.
2. Transport to the lab as soon as possible.

- Note 1: Specimens for culture should be obtained early in the morning.
- Note 2: Specimens for occult blood may be obtained by the physician by rectal probe, and smeared directly to the test card (obtained form lab), then transported to the lab for analysis.

Timed Collection Procedure:

Use:

- Quantitative measurements e.g. of fat.

Material:

- Container large enough to hold a 72 hour stool collection. The following are suitable:
  - gallon-sized wide-mouth jar
  - collapsible urine container
  - tissue bag, etc.

Procedure:

1. Patient identification must have 2 unique identifiers on each patient, one being name and the other being account number.
2. Label container with patient's name (as it appears on the request slip) and date.
3. Instruct patient as follows:
   - Products such as cathartics, laxatives and lubricants should not be used unless specifically instructed by the physician.
   - Specimens may be collected in clean bedpans, diapers, etc. then transferred to the container provided; however, such collections must not be contaminated by urine.
   - Specimens should be collected early enough during the day, then transported to the lab without delay or kept cool until brought to the lab.
   - Follow any instructions on diet physician has told patient, e.g. low fat, high carbohydrate, or no restrictions (i.e. eat normally).
4. Collect stool for 72 hours (or whatever time is specified by the physician) into the container, or transfer to the container.
5. Refrigerate during collection; e.g. place container in plastic bucket and cover with ice, the replenish ice as necessary.
6. Transport to lab as soon as possible on completion of collection.

Reference: Manual of Clinical Microbiology, fifth edition, 1991

CRITICAL VALUES

SEPTEMBER 21

Acadian Medical Center

DEPT: LABORATORY

ACADIAN MEDICAL CENTER

Critical Value Policy	PAGE: 1 OF 5	LAB 11

Policy
The laboratory technologist or technician assumes the responsibility of calling Critical Values to the appropriate licensed nurse or physician within 15 minutes of verification of the result. The appropriate recipient should be available to take a critical value within 10 minutes of notification. The person receiving the value shall read the value back to the laboratory personnel. The laboratory documents the lab caller, the receiver of the call, date, time, and VRB (Verbal Read Back) in MedHost.

Exception: The ordering physician may request the laboratory to omit calling a critical value on a known patient. The request must be written with each test order.

See Policy in Cardiopulmonary on Critical Value- ABGs.

Responsibility
Laboratory technical staff and nursing staff

CRITICAL VALUES on Patients within AMC
Critical Values on inpatients or on patients in other departments located within the hospital are called to a licensed nurse in the appropriate unit/department.

CRITICAL VALUES on Outpatient or Industrial Specimens:
During office hours, the technologist or technician phones the critical value, within 60 minutes of verification of the result, to the attending physician, nursing home, or healthcare facility. The results may be given to the physician's staff after the laboratory confirms that the physician is available to receive these results.

Contacting Physicians after Office Hours
After office hours, weekends, and holidays, the technologist phones the physician directly via home phone, cell phone or pager and reports the results to the attending physician, or the physician's coverage. The laboratory may provide the physician with the outpatient's home phone number. Patient telephone numbers can be obtained through the hospital's computer system. All outpatient critical results will be faxed to the ordering Physician or appropriate agency and documented. At least three (3) attempts via phone (cell, office, home) or pager are made to contact the Physician/Agency. All attempts to contact the Physician/Agency are documented in MedHost with appropriate date/time. If after three (3) attempts the Laboratory staff is unable to reach the ordering Physician/Agency, Laboratory Director or designee will be notified and will attempt to contact the patient to inform him/her of the critical result. Patient phone numbers on industrial specimens are only available if the physician's office supplies that information on the test requisition.

Any critical results, which were phoned to a coverage physician are placed in the ordering physician's medical record box.

Last Revised: 10-2020
Last Reviewed:
Adopted 7/2020

DEPT: LABORATORY

ACADIAN MEDICAL CENTER

Critical Value Policy	PAGE: 1 OF 5	LAB 11

Policy
The laboratory technologist or technician assumes the responsibility of calling Critical Values to the appropriate licensed nurse or physician within 15 minutes of verification of the result. The appropriate recipient should be available to take a critical value within 10 minutes of notification. The person receiving the value shall read the value back to the laboratory personnel. The laboratory documents the lab caller, the receiver of the call, date, time, and VRB (Verbal Read Back) in MedHost.

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Any critical results, which were phoned to a coverage physician are placed in the ordering physician's medical record box.

Last Revised: 10-2020
Last Reviewed:
Adopted 7/2020

Call Documentation for Critical Values

The laboratory person, who calls the results, asks the receiver to read back the results and documents the call statement in the laboratory computer system. The documentation consists of the person's computer initials, the name of the person taking the report, the location, the time called in military time, and VRB to indicate verbally read back. This information may be automatically time stamped by the information system. This documentation becomes a permanent part of the patient's record.

Annual Review

The MEC will review and approve the Critical Value policy annually.

Attachments:

Approved Critical Value List

REVIEW

This policy has been reviewed and approved:

_____

Laboratory Medical Director Date

_____

Chief of Medical Staff Date

DEPT: LABORATORY

ACADIAN MEDICAL CENTER

Critical Value Policy	PAGE: 3 OF 5	LAB 11

MEDICAL EXECUTIVE APPROVED VALUES for AMC:

Critical Values

CHEMISTRY				
TEST	**LOW**	**POSSIBLE EFFECT**	**HIGH**	**POSSIBLE EFFECT**
ALT (< 16 years)			>50 U/L	
ALT (> 16 years)			>300 U/L	
AST (<2 years)			>80 U/L	
AST (>2 years)			>45 U/L	
Bilirubin (newborn)			>15.0 mg/dl	Brain Damage
Calcium	<6.5 mg/dl or	Tetany	>13.0 mg/dl	
Calcium (Newborn)	<6.5 mg/dl	Tetany	>12.0 mg/dl	
CKMB			>3.6 ng/ml	
CO2	<10 mmol/L		>40 mmol/L	
COVID-19			POSITIVE	
Creatinine			>3 mg/dl	
Glucose	<50 mg/dl	Loss of Consciousness	>400 mg/dl	Loss of Consciousness
Glucose (<6months)	<40 mg/dl	Loss of Consciousness	>200 mg/dl	Loss of Consciousness
Sodium	<125 m/L	Renal disease; diarrhea	>150 mEq/L	Dehydration; brain injury
Magnesium	<1.0 mg/dl	Tetany	>4.0 mg/dl	Decreased Reflex
Mag (L&D Patient			>8.0 mg/dl	Heart Block
Phosphorus	<1.2mg/dl		>9.0 mg/dl	
Potassium	<2.5 mmol/L		>6.0 mmol/L	Cardiac Arrhythmia
Potassium (Newborn)	<2.5 mmol/L	Cardiac Arrhythmia	>7.0 mmol/L	Cardiac Arrhythmia
Troponin I			>0.50 ng/ml	Myocardial Infarct
Lactate Level			>2.0 mmol/L	Sepsis
Acetaminophen			>200 ug/ml (4 hours post dose)	Hepatotoxicity
Alcohol			>300 mg/dl	Coma
Digoxin			>2.0 ug/ml	Cardiac arrhythmia
Gentamycin Trough			>2.0 ug/ml	Nephrotoxicity
Gentamycin Peak (Adult)			>10 ug/ml	Hearing Impairment
Gentamycin Peak (Pediatric)			>12 ug/ml	Hearing Impairment
Phenobarbital			>40 ug/ml	Ataxia; coma
Phenytoin			>20 ug/ml	Ataxia; convulsions
Salicylate			>30 mg/dl	Toxicity
Theophylline			>20 ug/ml	Nausea; arrhythmia
Vancomycin Trough			>25 ug/ml	Nephrotoxicity
Vancomycin Peak			>40 ug/ml	Hearing impairment

DEPT: LABORATORY

ACADIAN MEDICAL CENTER

Critical Value Policy	PAGE: 4 OF 5	LAB 11

HEMATOLOGY

TEST	LOW	POSSIBLE EFFECT	HIGH	POSSIBLE EFFECT
WBC	2.0 cell/MM^3	Leukemia	30.0 cell/MM^3	Infection
Platelet	30 K/UL	Hemorrhage	1000 K/UL	
Hematocrit (Newborn)	<40 %	Heart failure; Anoxemia	>70 %	Heart failure; Anoxemia
Hematocrit	<20 %	Heart failure; Anoxemia	>60 %	Heart failure; Anoxemia
Hemoglobin(Newborn)	<13.0 gm/dl	Heart failure; Anoxemia	>23.0 gm/dl	Heart failure; Anoxemia
Hemoglobin	<7.0 gm/dl	Heart failure; Anoxemia	>20.0 gm/dl	Heart failure; Anoxemia
Blasts	Any blasts seen on differential	Possible Acute Leukemia		
CSF (WBC)			>10/cumm	Meningitis

COAGULATION

TEST	LOW	POSSIBLE EFFECT	HIGH	POSSIBLE EFFECT
INR			>5.0	Hemorrhage
PTT			>60 sec.	Hemorrhage
PTT (Heparin Therapy)			>80 sec.	Hemorrhage
D-Dimer			≥ 0.5	

ARTERIAL BLOOD GASES(Adult)

TEST	LOW	POSSIBLE EFFECT	HIGH	POSSIBLE EFFECT
pH	<7.30		>7.50	
pCO	<30		>50	
pO2	<55			
O2 Saturation	<89%			

ATERIAL BLOOD GASES (NEWBORNS)(60mins,1day,5days)

TEST	Low	Possible Effect	High	Possible Effect
pH	<7.25		>7.60	
pCO	<20.0		>70.0	
pO2	<50.0		>800.0	
O2 Saturation	<89%			

VENOUS CORD BLOOD GASES for NEWBORNS

TEST	LOW	POSSIBLE EFFECT	HIGH	POSSIBLE EFFECT
pH	<7.25		>7.40	

BLOOD BANK

FINDING	POSSIBLE EFFECT
Positive antibody screen	May be unable to provide x-match compatible blood when needed
Delay or inability to procure blood or blood	May be unable to provide x-match compatible blood or appropriate blood

components for a patient	component when needed
Delay or inability to provide compatible units for a patient	Would not be able to provide compatible blood when needed
Delay or inability to provide RH-negative red cell components for an RH-negative patient	Would not be able to provide appropriate blood component to patient when needed
Inability to obtain a reliable Type and/or Rh of a patient	Unable to determine proper type and Rh of components to be administered
Positive Direct Antiglobulin Test (DAT) on newborn	Anemia, elevated bilirubin, cell destruction in the newborn
Transfusion reaction evaluation suggestive of a hemolytic transfusion reaction or bacterial contamination of a transfused blood component	Death of a patient due to intravascular hemolysis and/or sepsis

MICROBIOLOGY

FINDING	POSSIBLE EFFECT
Positive results for Gram Stain or Culture of AFB, Blood, CSF or any normally sterile body cavity fluid	
Positive Blood Culture	Sepsis
Positive CSF Culture	Meningitis
Positive Directogen	Meningitis; sepsis
Positive TB smear or culture	Public health implications; nosocomial infections
Any Positive Salmonella, Shigella, or Campylobacter sp. Culture	Public health implications; nosocomial infections
Any Positive systemic fungus culture	Sepsis; disseminated systemic mycosis
Any Positive joint, bone, pericardial, pleural or thoracentesis fluid	Septic arthritis; pericarditis; empymea; peritonitis
Eye Pseudomonas, Staph aureus or a pure culture of any organism	Serious eye damage or blindness
Methacillan (oxicillan) resistant Staph aureus	Prevent nosocomial spread
Vancomycin resistant Enterococcus	To receive most effective therapy
Neisseria gonorrhoeae	Public health implications
C-Diff – Positive	

SEROLOGY

TEST	FINDING	POSSIBL EFFECT
RPR (obstetrical patients)	Reactive	Delivery precautions; Public health implications

DEPT: LABORATORY

ACADIAN MEDICAL CENTER

Test Request	**PAGE:** 1 OF 1	**LAB - 64**

Policy

All requests for laboratory tests should be made in writing from a licensed physician, dentist or other personnel who are authorized by law to request and use findings of laboratory examinations.

Licensed Laboratory personnel may accept verbal/phone orders from a physician. Verbal orders are discouraged for routine use and should only be allowed in emergent situations. When a verbal order is accepted a written request must be obtained within 30 days of the verbal request.

Requests should be legible and complete. In the event there is a question concerning the order, the requesting individual should be contacted for clarification.

Requests should include all information required for the performing individual to make professional judgments for appropriates of results obtained. The following information should be identified:

a. Patient Name
b. Patient's Gender
c. Age or Date of Birth
d. Requested Test(s)
e. Special Handing (where applicable)
f. Date and Time to be performed (where applicable)
g. Additional information required by the laboratory to support accurate test interpretation and reporting of results, such as race, ethnicity, or family history

Last Revised: 4/1/2010; 11/2019
Last Reviewed: 12/2012; 11/2013; 12/2014; 11/2015; 12/2016; 12/2017;11/2018; 11/2019