

# **Lane Regional Medical Center's Laboratory Specimen Collection and Processing Guide**

LABORATORY MEDICAL DIRECTOR: DR JOHN SIMMONS

LABORATORY MANAGER: DAVID BROUSSARD

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## GENERAL LABORATORY INFORMATION

### Hospital Clinical Lab:

**Phone: (225)658-4320; Fax: (225)658-4417.**

The Clinical Laboratory is located on the first floor of Lane Regional Medical Center, 6300 Main Street, Zachary, LA 70791. Hours: Mon - Fri, 6 a.m. – 5 p.m.

Note: After-hours Outpatient Services are available. Patients should report to the ER Registration desk for assistance.

Additional, specific test or specimen related information can be obtained by contacting a Laboratory Supervisor. For consultation regarding test utilization or interpretation, please request the Medical Director or Laboratory Manager.

### Outpatient Diagnostic Center:

**Phone: (225)658-4581; Fax: (225)658-4179.**

The Outpatient Diagnostic Center collection site is located on the first floor of the Lane Medical Plaza & Outpatient Diagnostic Center, 6550 Main Street, Zachary, LA 70791. Hours: Mon – Thurs, 7 a.m. – 4:30 p.m. and Friday, 7a .m. – 2:30 p.m.

### Outpatient Collection Site Services for Non Network Coverage

LRMC Lab will act as a collection site for those patients that have the following insurances.

- Humana PPO – LabCorp Network Provider
- Cigna – LabCorp Network Provider
- People's Choice – Quest Network Provider
- Aetna (excluding Aetna Entergy & Aetna ExxonMobil) – Quest Network Provider
- Blue Cross Community Blue – LabCorp Network Provider
- Blue Cross Magnolia Local HMO- LabCorp Network Provider

Please Note: If a Patient presents with a LabCorp or Quest Requisition from the Physician's office, LaneRMC interprets this as a referral request, therefore LaneRMC will act as a Collection Site only.

For STAT Testing performed on behalf of LabCorp or Quest, please refer to the STAT Test List for each company, listed on pages 18 & 19.

### **Courier Services**

LaneRMC Lab operates a limited courier network throughout the surrounding area for previously approved clients. Specimens are stored in appropriate containers ensuring their integrity during transport to the testing site. For information regarding courier service, contact Department Manager David Broussard at (225)658-4377.

### **Specimen Collection Supplies**

Specimen collection supplies are provided to our Clients for specimen collection to our laboratory. For special collections, there are supplies available for your use. Be sure to rotate your supplies and check for expiration dates. Do not use any supplies beyond the expiration date. For additional information, please contact a lab employee at (225)658-4320.

### **Test Requests**

Laboratory tests may be ordered by using either of the following:

- By use of a hard copy laboratory test request form completed by a physician
- By verbal phone request from physician's office
- Physician Script - handwritten order from physician
- Computer generated ordering systems

All orders must include all necessary ICD-10 codes. Some tests require prior scheduling. Refer to the individual test listings in the [LaneRMC Laboratory Test Directory](#) or contact the lab for assistance.

## Patient Identification

All patients from whom clinical specimens are obtained must be positively identified prior to specimen collection. Positive identification is the responsibility of the person collecting the sample. LaneRMC requires each patient to be positively identified by the following two identifiers:

- **PATIENT'S FIRST AND LAST NAME**
- **PATIENT'S DATE OF BIRTH**

## Specimen Labeling

The following information must be legibly recorded on a label affixed in an irreversible fashion to the specimen container:

- **PATIENT'S NAME** and **PATIENT'S Date Of Birth**
- **DATE AND TIME** the specimen was collected
- **INITIALS** of the person who identified the patient, collected the specimen, and labeled the specimen.

Pre-printed patient labels that include the correct patient information generated by an information system may be used. **The date collected and the initials of the collector must be recorded after the specimen has been drawn and after verifying that the patient name and D.O.B. on the label agrees with that on the test requisition.** This is the single most important factor in preventing errors in patient specimen identification.

- Use one label per specimen.
- Transport specimens in leak-proof, sealed, plastic biohazard bag designed for specimen transport.
- Place the labeled specimen in the bag. The label should be affixed to the specimen container and not the bag.
- Place the matching requisition in the outside pouch of the bag.

Use of a request form wrapped around the container is not acceptable as a specimen label. Specimens will not be accepted if the information on the specimen label does not match the information on the accompanying requisition.

**Specimens with labels that do not contain required information (or for which the information is not legible) will be considered improperly identified.**

## Rejection of Specimens

Proper specimen collection and handling are essential to obtaining valid, timely test results. All test requisitions and specimens must meet the defined criteria for identification, collection, volume, and testing in order to be processed. **The lab will not process unlabeled, mislabeled, or misidentified specimens.**

When such a specimen is received, the laboratory will contact the ordering unit/clinic/physician's office. The nurse or physician will be informed that the specimen is improperly labeled. A new specimen should be obtained. If unable to recollect, the person responsible for the collection has the opportunity to correct the labeling discrepancies. If any criterion is not met, the attending physician, unit, or clinic will be notified immediately so that corrective action can be taken.

## Test Requisition

**Specimens must also be accompanied by a test requisition that contains the following information:**

- **PATIENT'S NAME AND ADDRESS**
- **PATIENT'S GENDER**
- **PATIENT'S DATE OF BIRTH**
- **PATIENT'S SOCIAL SECURITY NUMBER**
- **TESTS REQUESTED, clearly marked**
- **DATE AND TIME, when specimen was collected**
- **NAME OF ORDERING PHYSICIAN OR CLIENT NUMBER**
- **TYPE (OR SOURCE) OF THE SPECIMEN**

- **CLINICAL INFORMATION & ICD-10 CODES** appropriate to ordered tests as indicated on the requisition
- **PATIENT BILLING AND INSURANCE INFORMATION**

**Specimens with requisitions that do not contain this information (or for which the information is not legible) will be considered improperly identified.**

### **Verbal Orders and Add-On Tests**

Regulations require that all verbal orders for tests must be confirmed by a written signed requisition within 30 days of the request. This includes add-on requests and verbal orders for all patients. The laboratory will provide the request form to be used either via fax or mail.

### **Lab Orders and Standing Orders**

**Routine** orders are valid for 30 days from the date stated.

**Standing** orders are valid through the expiration date on the order or for 1 year from the date stated if no specific date is given.

### **Safety Precautions**

All specimens should be regarded as potentially hazardous or infectious. Standard Blood and Body Substance Techniques should be observed.

### **Chain-of-Custody**

Chain of Custody Drug Screen collections are available upon request. A Chain-of-Custody form and/or specific specimen cup must be provided by the participant unless specific supplies have been provided to LaneRMC lab in advance.

LaneRMC can provide an ESCREEN Chain-of-Custody collection. For more information about this service, please contact David Broussard at (225)658-4377.

## Specimen Collection

Proper specimen collection is vital to ensuring an accurate test result. A fasting specimen is preferred and/or required for most of the laboratory tests to reduce possible test interference. Please refer to the individual test listing in the [LaneRMC Laboratory Test Directory](#) for fasting requirements and special collection techniques.

Collect the blood specimen from a vein, avoiding hemolysis and avoiding stasis due to prolonged application of the tourniquet. Use a butterfly needle for pediatric patients and for patients with difficult veins.

- Avoid collecting specimens from veins where administration of fluids will cause abnormal levels of electrolytes, glucose, or drugs.
- Avoid contamination from heparin locks for coagulation tests.
- Collect the specimen into the proper tube or container using the correct sequence of draw. Please refer to the individual test listing in the [LaneRMC Laboratory Test Directory](#).

## Specimen Collection Tubes

- Green-top tube (Lithium heparin)
- SST Gold-top tube (Gel separator)
- Red-top tube (Plain) No additive
- Lavender-top tube (EDTA)
- Light blue-top tube (Sodium citrate)
- Green-top tube (Sodium heparin)
- Gray-top tube (Sodium fluoride)
- White-top tube (PPT)
- Royal blue-top tube (EDTA)
- Royal blue-top tube (Plain) No additive



## Order of Specimen Containers for Blood Draw

A. Obtain blood specimens in the following order when using the Vacutainer system of collection:

- Blood Culture
- Coagulation tube (Light blue-top tube SST Gold-top tube)
- Plain Red
- Gold or SST
- Last- Additive tubes in this order:
  - Heparin: Green-top tube (Sodium heparin) or Green-top tube (Lithium heparin)
  - Lavender-top tube (EDTA)
  - Gray-top tube (Oxalate/fluoride)
  - Other additive tubes

B. When obtaining blood specimens from a patient's line such as a PICC line, 10mls of blood must be discarded prior to filling any tubes to avoid contamination of the blood samples for testing.

C. Pediatric Microtainers must be obtained in the following order for heel stick collections:

- Lavender-top (EDTA)
- Green-top (Heparin)
- Red-top (Non-Additive)

## Specimen Collection and Processing

- Collect the required amount of specimen. While small amounts of blood are now used for many automated tests, there are minimum requirements. Optimum collection volumes allow for the test to be repeated and verified if necessary.
- Minimum volumes are to be used for patients where unnecessary blood loss may affect patient status.

- When difficulties are encountered with blood volumes, consult the laboratory.
- Avoid hemolysis, which can elevate certain lab results. (e.g. LDH, K, AST).
- Use of the wrong container can result in erroneous results, which will necessitate redraw of the specimen.
- Specimens must be submitted to the laboratory in the container used originally for collection.
- Never decant or aliquot the specimen from one type of container to another.
- Unusual specimens (lipemic, icteric, hemolyzed) may require a recollection of the specimen for repeat testing.
- When using tubes with anticoagulants, especially for coagulation tests, a sufficient fill volume is required to ensure the appropriate specimen dilution.
- Use the proper container and mix all specimens containing anticoagulant or preservative by gentle inversion for 15 seconds.

### **Separator Tubes**

Collect blood in SST Gold-top tubes for most chemistry tests or as specified in test requirements. Mix by gentle inversion for 15 seconds. Allow sample to completely clot then centrifuge at 3,000 – 3,500 rpm for 10 to 15 minutes. Proper centrifugation is critical for proper separation. Always store specimen upright (helps maintain separation). Store the spun specimens upright in the refrigerator unless otherwise specified by the test requirements.

### **Urine Specimens**

Random collection for Routine Urinalysis or Urine Culture: All urine specimens should be collected as clean catch urine specimens. The first voided morning specimen is preferred. Samples should be delivered to the Lab as soon as possible. If there will be any delay in testing, the sample should be refrigerated or kept on ice until testing can begin.

## Patient Instructions: Male

- The hands are to be thoroughly washed with soap and water and dried with a paper towel.
- The initial portion of urine is passed into the toilet bowl. A portion of the remaining urine should be passed into a sterile, screw-cap plastic cup. (Mid-stream)
- When specimen stability may be an issue, aliquot a portion to a urine transport tube (contains preservative) for routine urinalysis or special urine culture transport tube for Microbiology testing.
- Transport the specimen to the lab immediately or refrigerate if transport is delayed.

## Patient Instructions: Female

- The hands are to be thoroughly washed with soap and water and dried with a paper towel.
- With one hand the patient should spread her labia and keep them continuously apart until the urine is voided in to a sterile screw-cap container.
- The patient should cleanse the urethral meatus from front to back.
- The patient should void the urine and after the first portion of the urine is passed, a specimen should be caught in the sterile container without stopping the stream. The sterile container should be held in such a way that contact with the legs, vulva, or clothing is avoided.
- When specimen stability may be an issue, aliquot a portion to a urine transport tube (contains preservative) for routine urinalysis or special urine culture transport tube for Microbiology testing.
- Transport the specimen to the lab immediately or refrigerate if transport is delayed.

## Timed Urine Collections: 24 hours:

Request a 24-hour Urine Collection Container and specify test. In order to calculate body surface area for Clearance test, patient height and weight must be given and a blood specimen is required. If multiple tests are ordered, more than one method of preservation may be required and additional specimen collection periods at a different time will be necessary.

## Patient Instructions: 24-Hour or Timed Urine Collection

It is critical to keep the specimen collection container refrigerated during collection and delivery to the laboratory. (Small Styrofoam containers may be used to keep the sample on ice.)

- Collect the specimen in a separate disposable container and add collection to 24-Hour container. Do not void directly into container.
- When adding specimen to container, add carefully to avoid splatter.
- If splatter occurs wash off immediately with cold water.
- Normal fluid intake is allowed during the collection period.
- Dietary restrictions are required for some tests (check Test Directory/Lab Guide or as directed by physician).
- Refrigerate container during collection and transport. (A small cooler with ice works well.)

## Instructions for Day of Test:

**Day 1: Discard** first morning specimen and record time.

Collect **ALL** specimens during the remainder of the day and night. Do not void directly into container. Collect the specimen in a separate disposable container and carefully pour into 24-hour container. Refrigerate during and after collection.

**Day 2:** Collect the first morning specimen and collect all urine until the Start time from the previous day then stop the collection (9 am, Day 1 until 9 am, Day 2). Label specimen with patient's full name, date and time start and end of collection.

Attach completed Test Request form. (See Specimen Labeling section on page 5.) Tighten lid securely. Keep upright. Transport to laboratory as soon as possible. Keep refrigerated during transport.

**Note: The entire urine voided in the 24-hour period must be included.** If the amount of specimen exceeds capacity of the 24-hour urine container use a second container and refrigerate immediately. Contact the laboratory for further instructions. Be sure to label each container as: 1 of 2 or 2 of 2 as appropriate and note on requisition that two (2) containers are submitted.

### **Other timed urine collection Instructions: 2, 6 or 12 hr**

- Discard initial specimen.
- Record the time **start** \_\_\_\_\_
- Collect all specimens voided within the requested time frame.
- The last collection (emptying the bladder) should occur at the end of the time specified for collection.
- Record the time **stop** \_\_\_\_\_
- Label the specimen with patient's full name, date & time of collection.
- Attach test request form. (See Specimen Labeling section on page 5.)

### **Storage and Transport for timed urine specimens**

Consult the Individual test in the Test Directory/Lab Guide for specific collection instructions, storage, temperature and transport information. Be sure to write on the label and on the Test Request form the:

- Patient Name and Date of Birth
- Date of collection
- Timed Interval of collection
- Check urine specimen containers to be sure lids are secured.
- Keep specimens in an upright position for submittal promptly to the laboratory.
- Keep refrigerated during transport.

## Availability of Results

Turnaround time is defined as the period of time from receipt of the specimen in the laboratory to release of the result. Results of the routine tests drawn are generally available the following day. In some cases, due to the complexity of the test or if the test is not performed on a daily basis, a longer turnaround time may be indicated.

**Note:** In cases where special handling or processing is required, please contact the Laboratory prior to sending the specimen at (225)658-4320.

## Result Reporting

When verified and released, all patient laboratory results are available electronically. Patient reports are distributed via the laboratory web portal, teleprinter, courier, fax, or U.S. mail.

Request for additional copies of outpatient reports should be made at the time of the initial test request. Full name and address information of the recipient should be written legibly on the request form. Patients may obtain a copy of their test results once a Medical Authorization of Release has been completed and signed by the patient.

## Telephone Reports

Requests for telephone or fax reports of results should be indicated on the original test request. Routine results will be called or sent by fax within 1 business day. For areas which do not have access to the computerized reporting system, all stat results will be reported by fax as soon as completed. Patients may not receive their results via telephone.

## **Critical/Panic Values:**

Critical/Panic values are defined as values that are outside the normal range to a degree that may constitute an immediate health risk to the individual or require immediate action on the part of the ordering physician. It is the policy of the clinical laboratory to call all critical/panic values as soon as completed and verified.

## **Notification by the Laboratory of Critical/Panic Values:**

- The ordering physician's office or referring facility will be called and the results communicated to an RN or MD.
- Documentation will be made of the call listing the name of the person receiving the call and the time the call was made.
- For verification the person receiving the call will be asked to repeat the critical results back.
- If there is no answer, the physician's answering service or physician that is covering for the ordering physician will be called or paged.
- If unable to contact a responsible party within 45 minutes, the physician will be paged starting the secondary notification process. Documentation will be made of all attempts (times and phone numbers called) in to the computer. If after the second attempt to contact the ordering physician has failed, the Chief of Staff will be notified documenting the time in the computer that notification was given.

## **Alphabetical Test List**

The Lane Regional Medical Center [LaneRMC Laboratory Test Directory](#) contains a Test Menu with an alphabetical test list including the following information about specific tests:

- Test Names
- Specimen Type
- Container Type
- Sample Volume Required
- Special collection instructions

## Laboratory Definitions

<b>Ambient:</b>	Room Temperature
<b>Refrigerate:</b>	Refrigerator Temperature Range 2°C to 8°C (36°F to 46°F)
<b>Freeze:</b>	Freezer Temperature Range -10°C to -20°C (-14°F to -4°F)
<b>Critical Frozen:</b>	Separate plasma or serum from cells (clot) as soon as possible (ASAP) and freeze immediately.
<b>Stability:</b>	It is critical to transport specimen as instructed in the Test Directory/Lab Guide to preserve specimen stability.
<b>Labile:</b>	Some analytes (tests) or organisms are very time or environment sensitive and readily undergo change or breakdown. Never leave specimens in the sun or exposed to the elements.
<b>Special Handling:</b>	Expedited or special collection and processing. This is required only for specimens that must be processed with specific instructions. Refer to individual test listing and/or contact the laboratory for information.
<b>TAT:</b>	Turn Around Time. The time that test results are available after receipt of the specimen in the laboratory.
<b>Routine:</b>	In general test results are available 24-hours/next day. In some cases owing to the complexity of the test a longer TAT may be indicated.
<b>STAT:</b>	Results available within 4 hours of receipt in the laboratory.
<b>Timed:</b>	Specific timed specimen collection as in : Trough/peak levels for TDM, Glucose Tolerance or Timed urine collections
<b>Testing Schedule:</b>	Daily/24hours: In general test results available next day. See individual test for testing frequency or specific TAT



## Medicare Coverage of Laboratory Testing

When ordering laboratory tests that are billed to Medicare/Medicaid or other federally funded programs, the following requirements may apply:

Medicare only pays for tests, which it considers medically necessary for the diagnosis and treatment of the patient. Medicare will not pay for a screening test for a disease when the patient displays no symptoms or evidence of a disease except for certain specifically approved procedures and may not pay for non-FDA approved tests or those tests considered research only. Ancillary services are expected to have on file, a diagnosis or complaint that shows a medical necessity. The ordering physician must provide an ICD-10 diagnosis code, not a narrative description, if required by the fiscal intermediary or carrier.

Organ or disease oriented panels should be ordered only when all components of the panel are medically necessary.

Medicare National Limitations Amounts for CPT codes are available through CMS or intermediaries.

If there is reason that Medicare will not pay for a test the patient should sign an "Advance Beneficiary Notice" (ABN) Form to acknowledge that he/she is responsible for the cost of the test if Medicare denies payment. The fact that Medicare may not pay for a particular item or service does not mean that the physician should not order it. It does mean that Medicare probably will not pay for the laboratory.

Medicare will deny payment for the following reasons:

- Medicare does not pay for these tests for your condition.
- Medicare does not pay for these tests as often as requested (denied too frequently).
- Medicare does not pay for experimental or research use tests.

## LABCORP STAT TEST LIST

Acetone (blood)	Hemoglobin / Hematocrit
Albumin (blood)	Heterophile (Mono)
Alcohol (blood)	LDH, total
Alkaline Phosphatase	Lipase
Amylase (blood)	Liver - Hepatic Function
Basic Metabolic Panel (CP7)	Methemoglobin
Beta HCG, serum Quant	Phosphorus (blood)
Bilirubin, Total; Direct	Platelet count
Bilirubin, Neonatal (total/direct)	Potassium (blood)
Blood Urea Nitrogen (BUN)	Pregnancy test, (serum)
BNP, Natriurectic Quantative	Protein, total (blood)
Calcium (blood)	PT / PTT
Carbon Dioxide (CO2)	Rapid Influenza A&B
Carboxyhemoglobin (Carb monox)	Rapid Strep Screen
CBC	RSV antigen
Chloride (blood)	Semen Analysis (post vasectomy)
CK-MB	SGPT / SGOT
CPK, total	Sodium (blood)
Clostridium Difficile Toxin (A&B)	Synovial / Joint fluid cell count
Complete Metabolic Panel (CMP)	Theophylline
Creatinine (blood)	Tobramycin level (trough)
D-Dimer	Troponin I
Electrolyte Profile	Uric Acid (blood)
Fibrinogen Quantitative	Uric Acid (other)
Gentamicin Level (trough)	Urinalysis
Glucose (blood)	Vancomycin level (trough)
Gram Stain Smear	

## QUEST STAT TEST LIST

Amylase (blood)	Hemoglobin / Hematocrit
Amylase (other)	Heterophile (Mono)
Basic Metabolic Panel (CP7)	Influenza A&B
Beta HCG, serum Quant	LDH, total
Bilirubin, Neonatal (total/direct)	Lipase
Blood Urea Nitrogen (BUN)	Magnesium
Calcium (blood)	Platelet count
Carbamazepine (tegretol)	Pregnancy test, (serum)
Carbon Dioxide (CO2)	Pregnancy test (urine)
CBC	Potassium (blood)
Chloride (blood)	PT / PTT
CK-MB	Semen Analysis (post vasectomy)
CMP	SGPT / SGOT
CPK, total	Sodium (blood)
Creatinine (blood)	Rapid Strep Screen
Digoxin level	Theophylline
Dilantin (Phenytoin)	Tobramycin (trough, peak, random)
Electrolyte Profile	Troponin I
Gentamicin level (trough, peak, random)	Urinalysis
Glucose (blood)	Urinalysis Macro only
Glucose (other)	Vancomycin (trough, peak, random)
Glucose (CSF)	
Gram Stain Smear	

# SAMPLE STABILITY LIST

ALL SAMPLES ARE HELD REFRIGERATED FOR 7 DAYS TO ALLOW FOR ADDITIONAL TESTING. HOWEVER, THE FOLLOWING EXECPTIONS APPLY:

## HEMATOLOGY SAMPLE STABILITY

CBC 24HRS

ESR 12HRS

RETIC 24HRS

## COAG SAMPLE STABILITY

PT 24HRS

PTT 24HRS

FIBRINOGEN 24HRS

## CHEMISTRY SAMPLE STABILITY

ALB	3 DAYS
BNP (PLASMA)	3 DAYS
BILIRUBIN, DIRECT & TOTAL	5 DAYS
BUN	4 DAYS
C-REACTIVE PROTEIN	3 DAYS
CCRP (HIGH SENSITIVITY)	3 DAYS
CKMB	3 DAYS
CREATININE (URINE)	4 DAYS
D-DIMER	2 DAYS
DRUG SCREEN	24 HOURS
E2	24 HOURS
ETOH	3 DAYS
FOLATE	2 DAYS
FPSA	2 DAYS
GLUCOSE	3 DAYS
TPSA	2 DAYS
LDI	2 DAYS
MMB	3 DAYS
TP	3 DAYS
TOBRAMYCIN	3 DAYS
TROPONIN	2 DAYS
TRIG	2 DAYS
URINE /CSF PROTEIN	3 DAYS
URIC ACID	5 DAYS
VALPROIC AICD	2 DAYS
VITA B12	2 DAYS

## URINE DRUG SCREEN DETECTION PERIODS

DRUG	DETECTION TIMES
Ethanol	6-12 hours
Amphetamines	2-4 days
Barbiturates - Short acting	1 day
- Long acting	2-3 weeks
Benzodiazepines	3-7 days
Cannabis (Habitual Use)	up to 12 weeks
Cannabis (Single Use)	24-72 hours
Cocaine Metabolites	2-4 days
Codeine / Morphine	2-5 days
Ectasy (MDMA)	1-3 days
Heroin	8 hours
LSD	1-4 days
Methadone	3-5 days
Methaqualone	14 days
Nicotine	Long & Variable due to fat solubility
Opiates	2-4 days
Phencyclidine (PCP)	2-4 days
Phenobarbital	10-20 days
Propoxyphene	6 hours to 2 days
Steroids (Anabolic) Performance Enhancers	
Oral	14 days
Parenterally	1 month