Laboratory Services Guide

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Contact Us:
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Willis-Knighton South Laboratory (318) 212-5400
Willis-Knighton Bossier Laboratory (318) 212-7400
Willis-Knighton Pierremont Laboratory (318) 212-3400

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INTRODUCTION

This guide is designed to provide a convenient compendium of information of the services offered by the Willis-Knighton Health System Laboratories, as well as to describe the logistics involved in the ordering of tests. In many instances, the complexities of biological testing in the modern laboratory cannot be completely described in print and users should avail themselves of the expert advice offered by the professional and technical staff of the department.

LABORATORY MISSION STATEMENT

- To continuously provide quality care in a timely, efficient manner to benefit our patients and to provide cost effective services.
- To promote communication in the department and keep all lab employees informed of changes and direction of the laboratory.
- To promote communication between the laboratory and physician offices and other departments associated with Willis-Knighton Health System.
- To position our reference lab operation to become a leader in a regional laboratory environment and promote our Lab to perform at reference lab level in delivery of services.
- To become the laboratory educational leader in our community and promote a professional connection with our laboratory and other labs in the area.

Scope of Operation

Willis-Knighton Health System Laboratories offer a comprehensive range of laboratory tests to support physician offices, hospitals, and other healthcare entities. We adhere to strict quality control and quality assurance program guidelines and our labs are equipped with state-of-the-art instrumentation to provide the fastest, most accurate results.

Our diagnostic laboratory services include:

- Professional, experienced phlebotomists
- Accurate results
- No appointment needed; walk-in patients are welcome
- Rapid report turnaround time
- Prompt service
- Superior customer service
- Full menu of routine and esoteric testing available
- Convenient citywide locations
- Flexible billing options
- Contracts with all major health plans

Licenses and Accreditation

Willis-Knighton Health System laboratories maintain a current CLIA Certificate of Accreditation with the Department of Health and Human Services Centers for Medicare and Medicaid Services (CMS), and are accredited by the College of American Pathologists.

Willis-Knighton Medical Center CAP Certificate

Willis-Knighton Medical Center CLIA Certificate

Willis-Knighton South CAP Certificate

Willis-Knighton South CLIA Certificate

WK Pierremont Health Center CAP Certificate

WK Pierremont Health Center CLIA Certificate

WK Bossier Health Center CAP Certificate

WK Bossier Health Center CLIA Certificate

WILLIS-KNIGHTON LABORATORY PATIENT SERVICE CENTERS:

For more information call our customer service department at (318) 212-4400.

WILLIS-KNIGHTON MEDICAL CENTER CAMPUS

Willis-Knighton Medical Center Laboratory
2600 Greenwood Road- Basement
Shreveport, LA 71103
Open 24hrs/7days a week
P:(318)212-4400 F: (318)212-4240

Medical Arts Building Patient Service Center
2551 Greenwood Road - 4th Floor
Shreveport, LA 71103
Monday-Friday 7:30-5:00 PM
P: (318)212-8101 F: (318)212-8164

Willis-Knighton Cancer Center
2300 Kings Highway - Suite 252
Shreveport, LA 71103
Monday-Friday 7:00-4:00 PM
P: (318)212-8040 F: (318)212-8011

Laboratory Patient Access Center
2751 Albert Bicknell Dr. - Suite 2B
Shreveport, LA 71103
Monday-Friday 8:00-5:00 PM (Closed for Lunch)
P: (318)212-6096 F: (318) 212-6099

WILLIS-KNIGHTON SOUTH CAMPUS

Willis-Knighton South & The Center for Women's Health Hospital Laboratory
2510 Bert Kouns - 1st Floor Laboratory
Shreveport, LA 71118
Open 24hrs/7days a week
P: (318)212-5400
F: (318)212-5252

Physician Center Patient Service Center
2508 Bert Kouns Industrial Loop - Suite 104
Shreveport, LA 71118
Monday-Friday 8:00-5:00 PM
P: (318)212-5441
F: (318)212-5474

WK PIERREMONT HEALTH CENTER CAMPUS

WK Pierremont Health Center Hospital
8001 Youree Drive - 1st Floor
Laboratory
Shreveport, LA 71115
Open 24hrs/7days a week
P: (318)212-3400
F: (318)212-3405

Portico Patient Service Center at WK Orthopedic & Sports Medicine Center
7925 Youree Drive - 1st Floor
Shreveport, LA 71105
Monday-Friday 7:30-4:00PM
Closed for Lunch 12:30-1PM
P: (318)212-3419
F: (318)212-3426

Medical Arts Building Patient Service Center
1811 E. Bert Kouns Ste. 460
Shreveport, LA 71115
Monday-Friday 7:00-5:00 PM
P: (318)212-2880
F: (318)212-2886

WK BOSSIER HEALTH CENTER CAMPUS

WK Bossier Health Center Hospital
2400 Hospital Drive - 1st Floor
Bossier City, LA 71111
Open 24hrs/7days a week
P: (318)212-7400 F: (318)212-7405

Medical Office Building (MOB) 2 Patient Service
2300 Hospital Drive - Suite 180
Bossier City, LA 71111
Monday-Friday 8:00-5:00 PM
Closed for Lunch
P: (318)212-7689 F: (318)212-7695

Medical Office Building (MOB) 1 Patient Service Center
2400 Hospital Drive - 4th Floor
Bossier City, LA 71111
Monday-Friday 8:00-5:00 PM
Closed for Lunch
P: (318)212-7681 F: (318)212-7807

Medical Pavilion Lab
2449 Hospital Drive- Suite 410 Bossier City, LA 71111
Monday-Friday 8:00-5:00 PM
Closed for Lunch
P: (318)212-7385 F: (318)212-7426

WK PALMETTO HEALTH PARK

1001 Lackland Blvd. Benton, LA 71006
Monday-Friday 8:00-4:30PM
P: (318)935-1543 F: (318)935-1553

WK STOCKWELL MEDICAL PLAZA

5751 Shed Road, Bossier City, LA 71111
Monday-Friday 8:00-5:00PM
Closed for Lunch
P: (318)935-1943 F: (318)935-1933

WK NORTHWOOD MEDICAL PLAZA

5621 North Market, Shreveport, LA 71107
Monday-Friday 8:00-5:00PM
P: (318)935-1720 F: (318)935-1725

WK CRL- ALEXANDRIA PATIENT SERVICE CENTER

501 Medical Center Drive, Suite 120 Alexandria, LA 71301
Monday-Friday 8:00-5:00 PM
P: (318)445-2852 F: (318)445-2853

WK SWAN LAKE MEDICAL PLAZA

5431 Airline Drive Suite 130 Bossier City, LA 71111
Monday-Friday 8:00-5:00PM
P: (318)935-1843 F: (318)935-1870

Medicare National Coverage Determinations (NCDs) & Local Coverage Determinations (LCDs) ICD-10

190.12- Urine Culture, Bacterial

190.13- Human Immunodeficiency Virus (HIV) Testing (Prognosis Including Monitoring)

190.14- Human Immunodeficiency Virus (HIV) Testing (Diagnosis)

190.15- Blood Counts (CBC)

190.16- Partial Thromboplastin Time (PTT)

190.17- Prothrombin Time (PT)

190.18- Serum Iron Studies

190.19- Collagen Crosslinks, Any Method

190.20- Blood Glucose Testing

190.21- Glycated Hemoglobin/Glycated Protein (HGBA1c)

190.22- Thyroid Testing

190.23- Lipids Testing

190.24- Digoxin Therapeutic Drug Assay

190.25- Alpha-fetoprotein

190.26- Carcinoembryonic Antigen

190.27- Human Chorionic Gonadotropin

190.28- Tumor Antigen by Immunoassay CA 125

190.29- Tumor Antigen by Immunoassay CA 15-3/CA 27.29

190.30- Tumor Antigen by Immunoassay CA 19-9

190.31- Prostate Specific Antigen

190.32- Gamma Glutamyl Transferase

190.33- Hepatitis Panel/Acute Hepatitis Panel

190.34- Fecal Occult Blood Test

L36241- Allergy Testing

L34914- Ascorbic Acid

L35062- Biomarkers Overview

L35396- Biomarkers for Oncology

L34914 - Carnitine

L34856- C-Reactive Protein High Sensitivity Testing (hsCRP)

L35006- Controlled Substance Monitoring and Drugs of Abuse Testing

L34914 – Fibrinogen Antigen

L35099- Frequency of Laboratory Tests

L34914 - Folic Acid (Folate)

Medicare National Coverage Determinations (NCDs) & Local Coverage Determinations (LCDs) ICD-10

L38229- Gastrointestinal Pathogen (GIP) Panels Utilizing Multiplex Nucleic Acid Amplification Techniques (NAATs)

L34914 - Homocysteine

L34914- Lipoprotein A

L34914 - Vitamin B6, B2, B1, E, A and K

L34914 - Vitamin B12

L34914 - Vitamin D 25 Hydroxy and 1-25 Hydroxy

L36715- BRCA1 and BRCA2 Genetic Testing

L39082- Genetic Testing for Cardiovascular Disease

L39365- Genetic Testing for Oncology

L38916- Respiratory Pathogen Panel Testing

SPECIMEN COLLECTION & TRANSPORT

Introduction:

Proper sample collection and handling is an integral part of obtaining a valid and timely laboratory test result. Specimens must be obtained using proper phlebotomy techniques, collected in the proper container, correctly labeled (in the presence of the patient) and promptly transported to the laboratory. It is the policy of the laboratory to reject samples when there is failure to follow these guidelines. All specimens should be handled with universal precautions, as if they are hazardous and infectious.

Patient Identification:

Correct patient identification before specimen collection is extremely important. Identify the patient prior to sample collection, using at least two patient identifiers.

Inpatients: Patients in the hospital should be wearing an identification bracelet. Proper identification should include a match using information on the test requisition and the patient's stating of his or her first and last name and date of birth. If the patient is unable to verbally confirm his or her first and last name, identification should include a match using information on the ID bracelet and the test requisition. If the patient does not have an ID bracelet, ask the nurse responsible for the patient to positively identify the patient and to place and ID bracelet on the patient. For unidentified patients, it is important to utilize the yellow-ID armband identification system.

Outpatients: For an outpatient or ambulatory setting, proper identification should include a match using information on the test requisition and the patient's stating of his or her first and last name and date of birth.

Patient Preparation:

Prior to each collection, review the appropriate test description, including the specimen type to be collected, the volume, the procedure, the collection materials, and the storage and handling instructions.

SPECIMEN COLLECTION TIMING

The basal state (the early morning approximately 12 hours after the last ingestion of food) is recommended for determining the concentration of body constituents such as glucose, cholesterol, triglycerides, electrolytes, and proteins.

Blood composition is significantly altered after consuming food, and consequently alters many clinical chemistry tests. If a patient has eaten, and the physician still wants the test, then "non-fasting" is written on the request so the laboratory can make a notation on the report as to why some of the test values may be different than expected. For outpatients, provide the patient in advance with appropriate collection instructions and information on fasting, diet, and medication restrictions when necessary.

Specimen Collection:

ORDER OF DRAW:

When drawing several types of blood specimens during a single venipuncture, tubes should be drawn in the following order to avoid test result errors due to cross-contamination of tube additives. This applies to both evacuated tube systems and syringe specimens transferred to multiple tubes. The order is based on the CLSI H3-A6 guideline.

BD Vacutainer® Tubes	Additive	Inversion Required At Blood Collection	Common Tests Associated With Tube
	• Broth Mixture	8-10	BLOOD CULTURE
GLASS RED	• Silicone coated (glass)	0	WASTE TUBE PRIOR TO COLLECTING COAG TUBE BLOOD BANK
LIGHT BLUE	• Buffered sodium citrate 0.105 M (3.2%) glass 0.109 M (3.2%) plastic	3-4	D-DIMER FIBRINOGEN PT/INR HYPERCOAG PANEL PTT LUPUS ANTICOAGULANT FACTOR ASSAYS PFA- NEED TWO GLASS 4.5ML TUBES
PLASTIC RED	• Clot activator, Silicone coated (plastic)	5	ACETONE ALCOHOL AMIKACIN ANA CEA CHEM 8/14 CORTISOL C-PEPTIDE CRP DIGOXIN ESTRADIOL FREE T3 & T4 HCG QUANT **HOMOCYSTEINE (ON ICE)** IRON PROFILE LIPID PANEL LITHIUM LIVER PANEL MG PROGESTERONE PSA PTH RENAL PANEL SALICYLATE TESTOSTERONE THYROID PANEL VITAMIN B12
MARBLE (RED-GREY) or GOLD SST	• Clot activator and gel for serum separation	5	
GREEN	• Lithium heparin	8-10	**TUBE PERFERRED FOR STATS!!** ALCOHOL **AMMONIA (ON ICE)** CHEM 8/14 CK, MMB, MYO, TROP DILANTIN ELECTROLYTES GENTAMICIN HCG QUANT LIVER PANEL RENAL PANEL
LIGHT GREEN	• Lithium heparin and gel for plasma separation	8-10	
LAVENDER	• Spray-coated K2EDTA (plastic)	8-10	CBC/RETIC PLT COUNT DIRECT COOMBS H&H HGBA1C CYCLOSPORIN ESR BNP PATH REVIEW HIV SICKLE CELL VANCOMYCIN
ROYAL BLUE	• K2EDTA	8-10	LEAD HEAVY METALS

BD Vacutainer® Tubes	Additive	Inversion Required At Blood Collection	Common Tests Associated With Tube
PINK	• Spray-coated K2EDTA (plastic)	8-10	TYPE & RH ANTIBODY SCREEN CROSSMATCH RHOGAM WORKUP **GLASS RED TOP IS ALSO REQUIRED!!!** **RED BLOOD BANK ARMBAND MUST BE COMPLETED AND ATTACHED TO THE PINK TOP!!**
GRAY	• Potassium oxalate/sodium fluoride • Sodium fluoride/Na2 EDTA	8-10	LACTIC ACID (ON ICE)
PALE YELLOW	• Acid citrate dextrose additives (ACD): Solution A - 22.0 g/L trisodium citrate, 8.0 g/L citric acid, 24.5 g/L dextrose Solution B - 13.2 g/L trisodium citrate, 4.8 g/L citric acid, 14.7 g/L dextrose	8-10	HLA CLASS I A, B,C DNA TYPING

Specimen Types:

Serum: Blood drawn into a tube without an anticoagulant additive will clot. The liquid portion of a clotted specimen is referred to as serum. The tubes are centrifuged after clotting is complete and the serum is separated from the cells.
Plasma: Blood drawn into a tube containing an anticoagulant additive will not clot if mixed properly. The liquid portion of an unclotted specimen is referred to as plasma. The tubes are centrifuged and the plasma is separated from the cells.
Whole Blood: Blood drawn into a tube containing an anticoagulant additive will not clot if mixed properly.

Specimens for Coagulation Testing:

Specimens obtained for Coagulation testing must be collected and transported to the laboratory according to strict guidelines in order to assure accuracy of results. When using a vacutainer or a winged blood collection set for venipuncture and a coagulation (citrate) tube is the first specimen tube to be drawn, a discard tube should be drawn first. The discard tube must be used to fill the blood discard tube or blood collection set tubing's "dead space" with blood; however the discard tube does not need to be completely filled. This important step will ensure maintenance of the proper blood-to-additive ratio of the blood specimen. The discard tube should be a no additive or coagulation tube.

It is highly recommended that blood specimens for coagulation testing be collected by venipuncture using a vacuum collection device that collects the specimen directly into an evacuated tube. 3.2% tri-sodium citrate (light blue-top) is the proper anticoagulant. This is the anticoagulant recommended by Clinical and Laboratory Standards Institute (formerly NCCLS) H21-A3 Guidelines. This laboratory

requires the use of 3.2% tri-sodium citrate for all coagulation testing. If any 3.8% citrate tubes are received, the test is cancelled and the physician is notified. No other anticoagulants are acceptable for coagulation testing. Light blue-top tubes (citrate) are available in a 4.5ml full draw tube or a 2.7ml and 1.8 ml draw to accommodate pediatric testing volumes. These tubes are pre-calibrated to draw the specified amount of blood, resulting in the proper 9:1 ratio of blood to anticoagulant. This ratio is ***critical*** in all methods of Coagulation tests. Specimens that do not have the proper amount of blood will be rejected.

Coagulation tests are enzymatic procedures and, as such, are subject to stringent time-frame and storage guidelines. Reaction temperatures and the pH of specimens must be controlled at all times. Receipt in lab beyond the stated guidelines will result in REJECTION of the specimen. The allowable time interval between collection of the specimen and testing of the sample will depend on the transport temperature and the storage of the specimen. Specimens for coagulation testing should be processed/stored as follows:

Most specimens for routine Coagulation testing can be transported either as whole blood or centrifuged (plasma) form. If plasma is sent, proper centrifugation protocol must be followed.

- **Specimens for routine Coagulation testing should be transported either at room temperature*(18-24°C) or refrigerated (2-4°C). *Specimens for Prothrombin Time testing (PT) should be transported at room temperature. They should NOT be refrigerated.**
- **PT assays must be performed within 24 hours of collection.**
- **APTT assays must be performed within 4 hours of collection.**
- **ALL other COAGULATION tests must be performed within 4 hours of collection.**
- **When samples cannot be assayed within the required time frame, the plasma must be separated from the red cells and frozen within one hour of collection.**

Mixing Tubes with Additives:

For proper performance of tube additives (anticoagulants, clot activators, and separation gels) tubes must be gently inverted several times immediately after collection (manufacturer recommends 8 inversions). In tubes with anticoagulants, inadequate mixing may result in platelet clumping, clotting, and incorrect test results. When mixing specimens with additives, do not shake the tubes. Vigorous mixing may cause foaming or hemolysis. Insufficient mixing or delayed mixing in SST tubes may result in delayed clotting and incorrect test results.

Specimen Labeling Requirements:

In accordance with standards issued by the College of American Pathologists (CAP) and The Joint Commission, **all specimens must be labeled at the time of collection; in the presence of the patient,** to maintain identity throughout the pre-analytical, analytical, and post-analytical processes.Willis-Knighton Health System Laboratory provides specimen labels for your convenience. Contact the Client Services department at (318)212-4400 for additional specimen labels. All specimens submitted to the laboratory **MUST** contain the following information:

Patient's Name: Doe, John
Date of Birth: 02-03-1947
Source: Urine
Collection Date: 03-01-2010
Collection Time: 09:30AM
Collector's Initials: PB

Patient's full legal name – last, first
Unique second identifier -
- Date of birth or
- Social security number (nnn-nn-1234)

Initials - person collecting the specimens
Specimen collection - date
Specimen collection - time
Source- if applicable (i.e. urine, CSF, etc.)

Transporting Specimens

Different tests have different temperature requirements during transportation and storage. Failure to provide the appropriate conditions can render a specimen unsuitable for testing. **If the specimen integrity will be compromised by the weather, either too hot or too cold, a courier should be called to transport the specimens immediately to the clinical laboratory.** The following considerations apply:

Frozen: -10° C or colder:

When ordering multiple tests on a patient, prepare a separate aliquot for each test requiring a frozen specimen. Pour off serum or plasma into a plastic tube before freezing. Do not freeze glass tubes. Do not freeze whole blood unless specifically indicated by the specimen requirements. Do not package frozen specimens with non-frozen specimens. Specimens must remain frozen during shipment.

Refrigerated 2-8° C:

Package specimen in an appropriate shipping container with a frozen coolant pack.

Room Temperature (Ambient) 18-22° C:

Room temperature specimens need not be packaged with coolant; however, extreme weather conditions could affect specimen quality. Take weather conditions into consideration when leaving specimens in locked boxes for couriers.

Specimen Rejection:

If there is a question as to the integrity and/or identification of a sample, the laboratory will reject the sample and request recollection. The client will be notified immediately regarding the sample rejection. If the specimen is considered an irretrievable specimen that prevents recollection of the sample, and the physician requests that the test be performed on a sample that cannot be positively identified, the laboratory will analyze the sample with the following conditions:

- The client must come to the laboratory to personally identify and relabel or correct the incorrect information on the patient sample and
- Complete a Confirmation of Specimen Identification form, thus taking the responsibility of the corrected information. The confirmation form must be dated and signed.

The following represent some reasons for specimen rejection or test cancellation:

- Failure to label a specimen correctly and to provide all pertinent information required on the test request form.
- Insufficient quantity of specimen to run test or QNS (quantity not sufficient).
- Inaccurate and incomplete patient instructions prior to collection.
- Failure to tighten specimen container lids, resulting in leakage and/or contamination of specimens.
- Incorrect or inappropriate specimen container (sterile, separation gel, anticoagulant or other additive, transport media).
- Incorrect storage conditions (room temperature, refrigerated, frozen).
- Specimen stability has exceeded the time limit criteria. Accurate testing requires that some tests be completed within specified time limits after collection.
- Patient preparation incorrect or incomplete (fasting or diet restrictions).
- Specimen collected at the incorrect time of day.

- Failure to mix specimen thoroughly with additive immediately after collection resulting in clot formation.
- Techniques or procedures that cause red cell damage or hemolysis.
- Specimen has been sent in expired transport media.

Urine specimens:

- Failure to obtain a clean-catch, midstream specimen.
- Failure to refrigerate specimen or store in a cool place.
- Failure to provide a complete 24-hour collection/aliquot or other timed specimen.
- Failure to add the proper preservative to the urine collection container prior to collection of the specimen.
- Failure to provide a sterile collection container and to refrigerate specimen when bacteriological examination of the specimen is required.
- Failure to tighten specimen container lids, resulting in leakage of specimen.
- Failure to provide patients with adequate instructions for 24-hour urine collection.
- Failure to divide specimen into separate containers for tests with such requirements

SPECIMEN REQUISITION:

Click here to print a copy of a requisition

A Willis-Knighton Reference Laboratory Services requisition form is available to submit orders to the laboratory. To assure proper specimen identification and accurate results, we require the following legible information be supplied on every laboratory requisition form:

- Patient's full legal name, address and telephone number
- Second identifier - use one of the following:
  - Last four digits of social security number
  - Date of birth
- Patient's gender
- **Patient's diagnosis**
- **Testing for Medicare patients should meet the Medicare** definitions for medical necessity. Screening requests on Medicare patients may require an Advance Beneficiary Notice (ABN). ABN forms can be obtained from the laboratory.
- Patient's complete insurance information, including policy number and address
- Guarantor name and address (patients who are minors cannot be their own guarantor)
- Tests to be performed
- Name, address and phone number of requesting clinician
- Additional information that may be relevant and necessary to assure accurate and timely testing and reporting of results.

If you have any questions concerning the requisition requirements, please feel free to contact our client services department at (318)212-4400

Add-On Tests

The laboratory can arrange to do additional testing on previously collected specimens if sufficient specimen volume remains and the specimen meets time limit criteria. Accurate testing requires that some tests be completed within specified time limits after collection. Orders for add-on tests may be placed by phone; written confirmation will be required. Written requests for add-ons must clearly state that the requested test is an add-on to a previously collected specimen. Contact the hospital laboratory for add-on test requests at the following numbers:

WKMC: (318) 212-4400 WKP: (318)212-3400
WKS: (318)212-5400 WKB: (318)212-7400

Test Cancellations

Cancellations received prior to test completion will be honored at no charge. Requests received after test completion will not be honored. The test will be billed and reported. To cancel a test, contact the laboratory as soon as possible.

Telephone Verbal Orders

Willis-Knighton Health System Laboratories require written confirmation of verbal orders. The client will be asked to sign a Verbal Order Confirmation Form, which contains all of the following information:

- Patient's full legal name
- Date of birth
- Ordering clinician's full name
- Diagnosis/ICD-9 Code
- Test(s) ordered
- Phone number where results can be called or faxed
- Date and time
- Name of person calling

Standing Orders

A written standing order must be specific to the patient and contain the following information:

- Patient's full legal name
- Unique Second identifier - use one of the following: Date of Birth or Social security number
- Clinician's full name
- Patient's diagnosis **(standing orders without diagnoses cannot be used)**
- Test(s) ordered
- Test frequency (i.e. daily, weekly, and monthly). "**PRN" and "as needed" are not acceptable test frequencies.**
- Start and Expiration date- no longer than 6 months

Corrected Reports

When a test result is corrected or modified, a new report is generated, and the client will be notified of the change. The report notes the new result, the original result and the date and time corrected and the individual contacted concerning the correction.

Critical Values

Willis-Knighton Health System has approved a set of laboratory results that require immediate notification, referred to as critical values. Critical values are called to the clinician responsible for the patient within one hour of confirmation of the results. Below is a list of approved critical values:

MICROBIOLOGY CRITICAL VALUES

The following reports should be phoned directly to the ordering physician. If you are unable to reach the physician, the results must be called to the licensed patient's caregiver on the unit.

- Positive AFB smears and cultures
- Positive fungus mounts that indicate *Blastomyces, Cryptococcus, Coccidioides, or Histoplasma.*
- Positive gram stain and culture reports from sterile tissue, bone marrow and body fluids, with the exception of gastrointestinal fluid or urine sources.
- Positive gram stain and culture reports from cerebrospinal fluid. Give most complete information that is available and call when updated information is obtained.

- Positive gram stain reports from blood cultures
- Positive blood cultures – initial positive only
- Positive gram stains or cultures indicating C. *perfringens,* E. coli O157 isolates
- Positive Malaria smears
- Positive Bordetella pertussis/parapertussis PCR assay
- Positive cultures indicating Neisseria Meningitidis isolates from sinus cultures

HEMATOLOGY CRITICAL VALUES

Fibrinogen	<75 mg/dl
Protime/INR	INR ≥5.0
APTT	>120 seconds
WBC Count	<2,000/mm^3 or > 40,000/mm^3
Hemoglobin	<7 g/dl or >20 g/dl (<8 g/dl & >25 g/dl < 1yr old)
iSTAT Hematocrit	<21% or >60% (<24% or >75% <1 yr old)
Platelet Count	<40,000/mm^3 or > 800,000/mm^3 (<100,000mm^3 < 1yr old)
Body Fluids	Presence of microorganisms in cerebrospinal fluid or other body fluids.

CHEMISTRY CRITICAL VALUES

Bilirubin, Total/Neonatal		≥ 15 mg/dL <1yr old
Calcium	≤6.0 mg/dL ≥1yr old ≤7.0 mg/dL <1yr old	≥13.0 mg/dL ≥1yr old ≥12.0 mg/dL <1yr old
Carboxyhemoglobin		≥20%
CO_2 – total	≤10 mmol/L	≥ 60 mmol/L ≥1yr old ≥ 40 mmol/L <1yr old
CSF Glucose	≤35 mg/dL	≥ 91 mg/dL
Glucose	≤50 mg/dL ≥1 week ≤25 mg/dL <1 week	≥ 400 mg/dL ≥1yr old ≥ 250mg/dL < 1yr old
Ionized Calcium	≤ 0.68 mmol/L	≥1.50 mmol/L
Mg^{++}	≤ 1.0 mg/dL	≥ 5.0 mg/dL ≥1yr old ≥ 3.0mg/dL <1yr old
Mg^{++} Labor & Delivery	≤ 1.0 mg/dL	≥ 8.0 mg/dL
pCO2- ABG, CBG	≤ 20 mmHg	≥ 50 mmHg
pH- ABG, CBG	≤ 7.20	≥ 7.60
Phosphorus	≤ 1.0 mg/dL	
pO2- ABG	≤ 50 mmHg ≥1yr old ≤ 45mmHg <1yr old	≥ 200 mmHg < 1yr old
Potassium	≤ 3.0 mmol/L	≥ 6.0 mmol/L
Serum Acetone	Large Positive	
Sodium	≤ 120 mmol/L ≥1yr old ≤ 130 mmol/L <1yr old	≥ 160 mmol/L ≥1yr old ≥ 148 mmol/L < 1yr old
Troponin		≥1.0 ng/mL
Lactic Acid		≥4.0 mmol/L

TOXICOLOGY CRITICAL VALUES

Acetaminophen	>150.0 μg/mL	
Alcohol, Serum	≥300 mg/dL	
Amikacin	Trough: > 10.0 μg/mL	Peak: > 35.0 μg/mL
Carbamazepine	>15.0 μg/mL	

Digoxin	>2.0 ng/mL	
Dilantin (Phenytoin)	>25.0 μg/mL	
Gentamicin	Trough: ≥ 2.0 μg/mL	Peak: >12.0 μg/mL
Lidocaine	>6.0 μg/mL	
Lithium	>1.5 mmol/L	
Phenobarbital	>50.0 μg/mL	
Salicylate	>30.0 mg/dL	
Theophylline	>20.0 μg/mL	
Tobramycin	Trough: ≥ 2.0 μg/mL	Peak: >12.0 μg/mL
Valproic Acid	>200.0 μg/mL	
Vancomycin	>50 μg/mL <1yr old	>80 μg/mL ≥1yr old

URINALYSIS CRITICAL VALUES

- Presence of the pathologic crystals: cysteine, leucine, or tyrosine, on urinalysis.

Patient/Family Education Sheets

When information is requested from a laboratory staff member to educate the patient, family or other caregivers, the laboratory will make every effort to supply the information in a format, which meets the language, communication, and educational level needs of the patient (verbal and/or written). If the laboratory staff member does not have sufficient information for the patient, the request should be communicated to the Laboratory Director. If necessary, the Laboratory Medical Director is available to assist in the education of the patient and/or family.

The following information is available by contacting the Laboratory at the numbers listed below: WKN (318) 212-4400, WKS (318) 212-5400, WKB (318) 212-7400, or WKP (318) 212-3400.

- **STOOL COLLECTION**
- **OCCULT BLOOD**
- **OCP**
- **COLLECTION OF 24 HOUR URINE SPECIMEN**
- **INSTRUCTIONS FOR COLLECTION OF A MIDSTREAM URINE SPECIMEN (FEMALE)**
- **INSTRUCTIONS FOR COLLECTION OF A MIDSTREAM URINE SPECIMEN (MALE)**
- **INSTRUCTIONS FOR COLLECTION OF A PEDIATRIC URINE SPECIMEN**
- **GLUCOSE TOLERANCE**
- **SPUTUM COLLECTION INSTRUCTIONS**

Microbiology Specimens

The accuracy and significance of clinical results is only as good as the specimen that the laboratory receives. Microbiology specimens must be collected in the clinical setting and not in the laboratory. An improperly collected or transported specimen can result in inaccurate results, which could lead to improper treatment. Contact your providing facility with questions regarding specimen collection.

Basic guidelines for Microbiology specimens:

- Label the specimen with the patient's full legal name, patient's second identifier, collection date and time, and source of specimen.
- Completed requisition form must accompany the specimen. The requisition must include the name, age, sex, patient location, clinician, date and time, diagnosis, and specimen source.

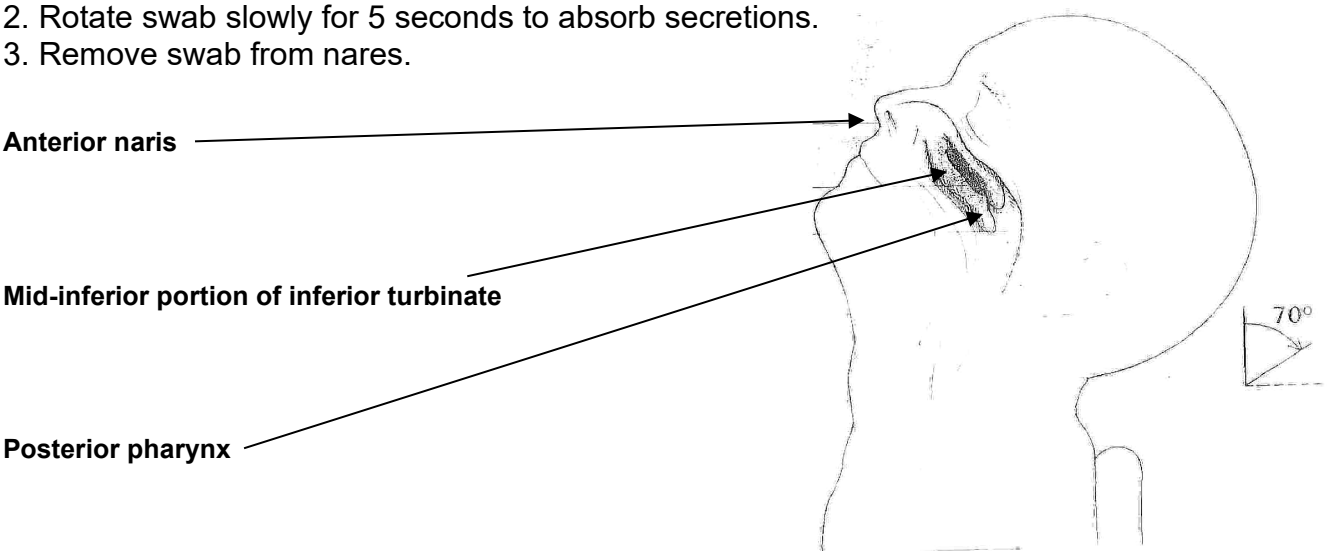
- An aspirate is the specimen of choice for wounds. If aspiration is not possible, a swab should be used. Where appropriate, cleanse the area surrounding an infected site to avoid contaminating a specimen with normal flora.
- Recovery of pathogens is enhanced if specimens are collected before the administration of antibiotics, except when PCR or DNA based testing methods are used. If antibiotics are administered, please note type, name, and dose on the requisition.

Basic methods for transporting Microbiology specimens:

- Transport labeled specimen in an appropriate container (i.e., sterile, leakproof, no needles, swabs in culturettes, strep screens acceptable in paper sleeve).
- Place labeled specimen in biohazard bag and seal completely.
- Place the completed requisition in the unsealed pouch of the same biohazard bag containing the specimen.

Nasopharyngeal Specimen Collection

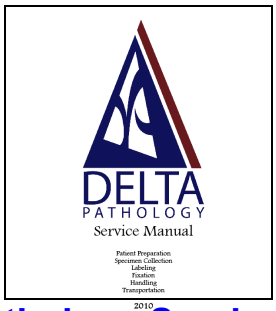
1. Gently insert a small swab through the nares and into the posterior nasopharynx.
2. Rotate swab slowly for 5 seconds to absorb secretions.
3. Remove swab from nares.



Patient's head should be positioned from vertical as shown for proper specimen recovery.

SUPPLY REQUESTS:

Click on the link to access the online SUPPLY REQUISITION for all supply requests.



Delta Pathology Service Manual