



Procedure Manual



www.themedlab.com ♦ www.biotechlab.com

Revised 09/01/2009

BIOTECH LABORATORY HISTORY

BIOTECH LABORATORY is a privately owned, independent clinical laboratory, serving the medical community since 1969. We take pride in the fact that we are large enough to offer a comprehensive package of services, yet small enough to offer flexibility in meeting the individual needs of our clients.

We are positioned to support you in providing the best possible care to your patients. Ninety-five percent of all testing is performed in-house utilizing state of the art technology and computerized reporting of results. Our staff of highly dedicated technical, service and clerical personnel is always available to you for inquires, results, interpretation and consultation.

This procedure manual has been developed to assist clients in ordering tests and in specimen collection. If you are interested in a test that is not listed in this manual, please phone the lab to obtain the necessary information. If you are interested in a profile which is not listed, please notify your customer representative. We will be happy to customize a profile to your exact specifications.

MISSION STATEMENT

Biotech Labs management and staff is committed to provide testing service to patients, physicians and clients at the highest possible level of excellence. Our goal is to give prompt, accurate, and understandable results on all procedures using the best technology consistent with current industry standards. Our commitment is to deal with those who we service and our fellow employees in an ethical and moral way as we come to understand it through Judeao-Christian values. Our experience is that these practices have made us successful in plans. The emphasis of our work is to contribute to the medical team which ultimately aims to restore people to health, enhance therapeutic treatment, and alleviate suffering. The continued viability, technological updating and growth of the company requires us to operate as efficiently as possible to all maximum profitability.

Biological Technology Laboratory, Inc.

CORPORATE OFFICES

10114 Woodfield Lane
St. Louis, MO 63132
(314) 432-5030 or (800) 737-5030
FAX (314) 432-1303

MAIN TESTING LAB

10126 Woodfield Lane
St. Louis, MO 63132
(314) 432-5030 or (800) 737-5030
FAX (314) 432-1303

PATIENT SERVICE CENTERS

ST. LOUIS, MO

10114 Woodfield Lane *
ST Louis, MO 63132
(314) 432-5030
(800) 737-5030
FAX (314) 432-1493
CLIA I.D. # 26D0440143
MEDICARE PROVIDER # 000010302
MISSOURI MEDICAID # B1700100902
ILLINOIS PUBLIC AID # 4311243700001
National Provider ID (NPI) # 1437109725

COLUMBIA, IL

1170 Admiral Weinal Blvd
Columbia, Il 62236
(618) 281-1780
FAX (618) 281-9856

COLLINSVILLE, IL

531 Vandalia
Collinsville, IL 62234
(618) 344-8721
FAX (618) 344-7653

MOUNT VERNON, IL

54-A Crownview *
Mount Vernon, IL 62864
(618) 242-9424
FAX (618) 242-9281
CLIA I.D. # 14d0647026
MEDICARE PROVIDER # 148497
ILLINOIS PUBLIC AID # 4311243700001

BENTON, IL

Benton Medical Lab
205 Bailey
Benton, IL 62812
(618) 439-3322
FAX (618) 435-2545

SPRINGFIELD, IL

1305 Wabash Avenue *
Springfield, IL 62704
(217_ 546-4143
(866) 363-9082
FAX (217) 546-4169
CLIA I.D. # 14D0419196

MORTON, IL

304 Erie Avenue
Morton, IL 61550
(309) 263-2400
(888) 325-5030
FAX (309) 263-2440

EVANSVILLE, IN

(812) 205-0449 STATS
(800) 737-5030 RESULTS

Melvin C. Bishop, M.A., B.S., M.T.
Laboratory Director

William DePond, M.D.
Medical Director

Tamara Schwartz
Compliance Officer

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Regional Manager, Columbia

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AccT Executive SO. & Central IL, & IN

Kayla Shanks
Regional Manager, Springfield & Morton

BUSINESS & FINANCIAL OPERATIONS

William Hunt, M.B.A., C.P.A.
Vice-President

Tammy William
Assoc. Director of Human Resources

Diane May
Accounts Receivable Manager

* Laboratory Testing Sites

How to Contact BioTech Laboratory For Lab Draws St. Louis, Missouri Clients

- Monday-Friday, 5 a.m.-5 p.m.** Call 314-432-5030, ext. 201 (dispatch)
- Monday-Friday, After 5 p.m.:** Call 314-432-5030. Leave message in STAT mailbox (this will page the on-call Phlebotomist and Technologist)
- For general inquires you may dial ext. 220
- Saturday, 6 a.m.-5 p.m.** Call 314-432-5030, ext. 201 (dispatch)
- Saturday, 5 p.m.-Monday 5 a.m.** You must use STAT mailbox
Call 314-432-5030, PLEASE listen carefully to the answering system. Follow all instructions and completely answer all questions or your STAT blood draw or pickup may not be received or paged to the phlebotomist.
- PLEASE NOTE** Any messages put in the Routine Draw mailbox will not be received until Monday morning.
- Contacts:** Daytime Supervisor – Karen Lewis, ext. 232
Evening Supervisor – Kevin Wells, ext. 322
Assistant Supervisor – Judy Parish, ext. 230

BioTech is closed for routine services on the following holidays:

**New Years Day
Memorial Day
4th of July
Labor Day
Thanksgiving Day
Christmas**

**How to Contact BioTech Laboratory For Lab Draws
Columbia, Illinois Clients**

Monday-Friday, 7:30 a.m.-4 p.m. for walk-in patients

**STAT AFTER HOURS INFORMATION
Please call our Beeper Number 618-325-7144**

Contacts: Lynda Kenney, Team Leader

**How to Contact BioTech Laboratory For Lab Draws
Collinsville, Illinois Clients**

Monday-Friday, 8 a.m.-3 p.m. for walk-in patients

**STAT AFTER HOURS INFORMATION
Please call our Beeper Number 618-325-7144**

Contacts: Luricka Dent, Team Leader

How to Contact BioTech Laboratory For Lab Draws Mt Vernon, Illinois Clients

Monday-Friday, 7 a.m.-5 p.m. for walk-in patients
Closed for lunch between 12 Noon and 1 p.m.

STAT AFTER HOURS INFORMATION
Please call our Beeper Number 618-325-3021

Contacts: Joan Brown, Phlebotomy Supervisor

How to Contact BioTech Laboratory For Lab Draws Benton, Illinois Clients

Monday-Friday, 8 a.m.-4:30 p.m. for walk-in patients
Closed for lunch between 12:30 p.m. and 1 p.m.

STAT AFTER HOURS INFORMATION
Please call our Beeper Number 800-612-8191

Contacts: Kim Redden

How to Contact BioTech Laboratory For Lab Draws Springfield, Illinois Clients

**Monday-Friday, 8 a.m.-4:30 p.m. for walk-in patients
During the above hours, please call 217-546-4143**

STAT AFTER HOURS INFORMATION
Please contact Dannielle Blue at 1-618-610-6940

How to Contact BioTech Laboratory For Lab Draws Peoria, Illinois Clients

**Monday-Friday, 8 a.m.-3:00 p.m. for walk-in patients
During the above hours, please call 309-263-2400**

STAT AFTER HOURS INFORMATION
Please contact Dannielle Blue at 1-618-610-6940

SPECIMEN COLLECTION PROCEDURES

The quality of the information derived from a laboratory test depends to a considerable extent on the quality of the specimen submitted for analysis. Correct patient preparation, specimen collection technique, and submission are essential factors in obtaining accurate test results.

It is recommended that tubes are completely filled (**Full Tubes**). This will ensure specimen integrity.

The following paragraphs outline proper techniques for specimen collection and preparation and suggest ways to avoid errors.

SPECIMEN LABELING

All samples submitted for testing shall be labeled with the patient's name as it appears on the requisition, and the date and time of collection.

SERUM

Serum is obtained from clotted blood collected in either a serum separation tube (SST) or in a red top tube (containing no anticoagulants or preservatives).

Prolonged contact of the serum with the clot results in alteration of many of its important chemical constituents, especially glucose, potassium, magnesium, alkaline phosphatase, lactic dehydrogenase, SGOT, SGPT, lactic acid and iron.

Therefore, to ensure valid test results it is essential to separate serum from the clot as soon as clotting is complete (30 minutes, unless the patient is receiving an anticoagulant drug). Specimens should be centrifuged as soon as clotting is complete. Specimens should not be batched and centrifuged at the end of the day.

NOTE: See Conditions Affecting Specimen Integrity – page 11.

PROCEDURE

1. Draw the appropriate volume of blood (2 ½ times the volume of serum required) into a red top tube or SST. See “RECOMMENDED PROCEDURES FOR PHLEBOTOMIST,” on page 12. If drawn in an SST, invert tube 5 times.
2. Allow the blood to clot in the stoppered tube in an upright position for 30 minutes.
3. Centrifuge the specimen for 20 minutes. The centrifuge should be balanced using a tube filled with an equal volume of water OR blood.
4. Turn off the centrifuge and allow it to come to a complete stop. Braking the centrifuge by hand may cause resuspension of red blood cells in the serum.
5. If sample was collected in a red top tube, pipette the serum into a plastic tube. Avoid transferring red blood cells by staying ¼” above the packed cells when pipetting. Be sure that the volume of serum is adequate for test(s) requested.
6. Securely tighten the cap on the plastic tube and label the tube clearly with the patient’s name, date and time of collection.
7. If freezing is specified, freeze the serum immediately. Any specimen to be stored for more than one hour before courier pickup should be refrigerated unless specifically instructed “do not refrigerate”.

PLASMA

Plasma is obtained from anticoagulated blood. Because this blood has not clotted, it retains its fibrinogen when separated from the cells.

Tubes used to collect plasma specimens contain an anticoagulant, and frequently a preservative as well. (the additive(s) in the tube are indicated by the label on the tube.) The various tubes are not interchangeable.

NOTE:

See Conditions Affecting Specimen Integrity – page 11.

1. Select the proper size and color tube. To release additive that may adhere to the tube or stopper, tap the tube gently just below the stopper.
2. Collect the specimen, making sure that the tube is filled to the exhaustion of the vacuum. Failure to fill the tube causes an improper ratio of additive to blood and may yield questionable test results.
3. Immediately after drawing the specimen, slowly invert the tube five to ten times to mix the blood with the anticoagulant. Thorough but gently mixing is essential to avoid partial clotting of the specimen. Inspect the bottom of the tube to be sure all additive is dissolved. Do not shake the tube. Over-vigorous mixing causes hemolysis and results in an unacceptable specimen. Invert each tube while the succeeding tube is being filled.
4. Leaving the tube stoppered, centrifuge and separate the plasma at once, following the above procedure described for serum.
5. Label the transfer vial “plasma.” If freezing is specified, freeze the plasma immediately. Any specimen to be stored for more than one hour before courier pickup should be refrigerated unless specifically instructed “do not refrigerate.”

FROZEN SERUM AND PLASMA SAMPLES

Thawed samples are not suitable for analysis. Please follow these guidelines when submitting frozen serum or plasma specimens.

1. Submit a separate frozen specimen for each test you requested; do not submit one frozen sample for several

tests. Almost all constituents that require frozen specimens are sensitive to the thawing and refreezing that would be required to perform several tests on the same sample.

2. You may submit multiple frozen specimens on a single test request form.
3. Notify the lab that you have a frozen specimen to be picked up.

WHOLE BLOOD

Collect whole blood in the specified tube. In most cases, this will be one containing an anticoagulant, but a few tests require clotted whole blood in a red top tube.

Invert the tube gently five or ten times to mix the blood with the additives in the tube. Do not allow the blood to foam or bubble.

Refrigerate the specimen until courier pickup or mailing, unless instructed otherwise. Never freeze whole blood unless specifically instructed by the guidelines in this manual.

URINE

The normal composition of urine varies considerable during a 24-hour period. Most random urine reference values are in the morning. This specimen is preferred because it has a more uniform volume and concentration, and its lower pH helps preserve the formed elements.

A. RANDOM URINE PROCEDURES

1. Submit a first morning specimen when-ever possible, especially for pregnancy testing. (If a first morning specimen cannot be obtained, make sure that the specimen has a specific gravity of at least 1.010.)
2. Specimens should be collected by the clean-catch, midstream method, using a sterile container 15 ml urine required. Refrigerate immediately. **Collect only when same-day pickup is available.**
3. If a frozen specimen is required, freeze **immediately** after collection. Notify the

lab that you have a **frozen** sample to be picked up.

- Record the collection time on the label of the container and on the Requisition Form.

B. URINE CULTURE PROCEDURE

- Clean Catch.** For the female patient, clean the periurethral area thoroughly before obtaining the specimen.

Wash the area with soap three times, and thoroughly rinse with sterile water.

Avoid any contact until the conclusion of micturition.

For the male patient, thoroughly clean the glans penis with soap, and completely rinse with sterile water.

Patient should avoid the first part of specimen into the toilet bowl. Secure the remainder of the specimen in a sterile container. Refrigerate immediately. **Collect only when same-day pickup is available.**

- In-Dwelling Catheter.** Follow Facility Procedure. **Collect only when same-day pickup is available.**

Specimens obtained from the collection bag are NOT suitable for analysis. Foley times will NOT be accepted.

C. 24 HOUR URINE COLLECTION

Because accurate test results depend on proper collection and preservation of timed urine specimens, patients should be carefully instructed in correct collection procedures. Printed instructions are available from the laboratory.

The same amount of liquids should be consumed during the collection period as is normally consumed unless otherwise instructed by the physicians. No alcoholic

beverages should be consumed during this period.

The collection starts after the patient empties his bladder. This initial voiding is not included in the timed collection. Note the time and date of voiding on the label of the specimen container. Collect all urine voided during the collection period including the specimen voided at the time the collection period is complete. Incomplete specimens produce inaccurate test results. The specimen should be collected in the clean, labeled container provided by the laboratory. This container may contain preservatives. Instruct the patient not to empty any powder, liquid or tablet from the container before beginning the collection. **FOLLOW INSTRUCTIONS FOR EACH ANALYTE.**

The specimen should be refrigerated during the collection period. Urine is an excellent medium for bacterial growth and many of its constituents decompose quickly at room temperature. Each voiding should be added to the container as soon as possible.

Always record the total volume and collection period on the specimen container submitted to the laboratory **and** on the test request form.

Before pouring off the required aliquot, thoroughly and gently mix the contents of the collection container.

Refrigerate the aliquot until courier pickup or freeze if so instructed.

IMPORTANT NOTE:

For those analyses requiring the addition of 6N HCL, add the acid at the start of the collection. Be sure to thoroughly mix the urine before removing the aliquot of urine.

SPUTUM

The most suitable specimen is an expectorant obtained after a deep cough, preferable early

in the morning. Collect the specimen in a sterile, leak-proof container provided by the laboratory. Avoid contamination by microflora indigenous to saliva or upper respiratory tract. Refrigerate until courier pickup.

CONDITIONS AFFECTING SPECIMEN INTEGRITY

ORGANISM INTEGRITY

Body cultures collected in media and culturettes provided are stable for 70 hours after collection.

HEMOLYSIS

Hemolysis occurs when the membrane surrounding red blood cells is disrupted and hemoglobin and other intracellular components escape into the SERUM or PLASMA. Hemolyzed serum or plasma varies in color from faint pink to bright red, rather than the normal straw color. The laboratory may reject grossly or moderately hemolyzed specimen for testing. Even slight hemolysis may alter certain test results such as potassium, lactic dehydrogenase, SGOT and CPK.

The following actions damage the red cell membrane and produce hemolysis:

- Using a needle smaller than 22 gauge.
- Using needles, syringes or tubes that are not clean and dry.
- Incomplete venipuncture resulting in the tube filling slowly.
- Removing the needle before the tube is completely filled, causing a rush of air into the tube.
- When using a syringe, drawing the blood rapidly instead of slowly and steadily.
- Expressing blood from a syringe through the needle. Always remove the needle and let the blood run down the side of the transfer tube.
- Shaking the tube containing the specimen. Foaming or bubbling of the blood can cause

gross hemolysis. Mix blood with anticoagulants and preservatives by inverting the tube gently ten times, using a slow rolling wrist movement.

- Inadequate or delayed mixing of the blood with anticoagulants.
- Allowing a serum specimen to remain on the clot after clotting is complete.
- Vigorous rimming of the clot before centrifugation.

TURBIDITY (Lipemia)

Turbid, cloudy or milky serum (lipemic serum) is produced by the presence of fatty substances (lipids) in the whole blood. A recent meal produces transient lipemia; therefore, it is preferable that a patient be in a basal state (fasting 12-14 hours) before specimen is drawn.

Moderately lipemic specimens may be accepted for some tests. However, lipemic specimens will be rejected for tests measuring blood lipids or lipid components such as cholesterol or triglycerides. For true determinations, a fasting specimen is essential for valid test results. Lipemia also distorts the results of tests for albumin, bilirubin, platelet count, uric acid and immunoglobulins measured by nephelometry.

Bacterial contamination may also cause cloudy serum.

PEAK AND TROUGH LEVELS OF ANTIBIOTICS

*Collection times for Peak & trough for Amikacin, Gentamicin, Tobramycin**

Trough: must be drawn within 15-30 minutes prior to dose (includes all antibiotics)

PEAK: IM (intramuscular) 1 hour after dose
PEAK: IV (intravenous) 30-60 minutes after infusion.

Collection times for Peak & trough for Vancomycin*

Trough: must be drawn within 15-30 minutes prior to dose (includes all antibiotics)

PEAK: IV *intravenous) 1.5 to 2.5 hours after infusion.
(this length of time has been determined by the manufacturer and is based on the drug's half-life)

Peak & Trough Reference Values

Tobramycin Peak: 5.0-10.0 ug/mL
Trough: .5-2.0 ug/mL

Amikacin Adult Range
Peak: 20.0-25.0 mg/L
Trough: <8.0 mg/L

Amikacin Children's Range
Peak: 15.0-25.0 mg/L
Trough: 2.0-4.0 mg/L

Potentially Toxic

Peak: >8.0 mg/L
Trough: >25.0 mg/L

Gentamicin
Peak: 5.0-12.0 ug/mL
Trough: 0.0-2.0 ug/mL

Vancomycin
Peak: 18.0-26.0 ug/mL
Trough: 5.0-10.0 ug/mL

*Or otherwise directed by Physician

RECOMMENDED PROCEDURE FOR PHLEBOTOMISTS

1. CONSIDER ALL SPECIMENS drawn as potentially infectious.
2. Always have equipment readily accessible and arranged in a neat manner before use. Plastic backed paper may be used to cover environmental surfaces and the paper discarded after use.
3. Exercise great care to avoid self-inflicted needle sticks.
4. Always wear a button lab coat and gloves when performing venipuncture.
5. Care should be taken not to spill or splash blood on environmental surfaces, the patient or the laboratory worker. However, any environmental contamination that does occur should be decontaminated immediately using freshly prepared 0.5% sodium hypochlorite (1:10 dilution of household bleach with water).
6. When possible use vacuum type collection systems. If vacuum type is not used, use disposable needles and syringes.
7. Before attempting the venipuncture, note the patient's condition. Adults and children may have a fear of the procedure and become nervous and excited. Under such conditions, the patient may draw back, jerk or flinch, causing you injury. Help is sometimes needed to identify and assist the resident during the venipuncture.
8. Thoroughly clean the venipuncture site using alcohol or other skin prep, depending on the analysis for which the specimen is being drawn. Allow the area to air-dry before inserting the needle into the vein. NEVER BLOW on the area to hasten drying.
9. When drawing the specimen, keep hands placed in a position which will best prevent you from being punctured with the needle.
10. If the specimen is to be dispensed into individual tubes, dispense it slowly to prevent hemolysis and the formation of aerosols or spatter.
11. When the collection is finished and the sample properly dispensed, the needle should be immediately placed in a puncture-resistant container which can be sealed and disposed of as biohazard waste. DO NOT attempt to replace needle in sheath. DO NOT attempt to bend the needle or handle it more than absolutely necessary.
12. All contaminated materials, i.e., cotton, wipes, materials, used for spill cleanup, etc., must be placed in a properly labeled "Biohazard" container for sterilization and disposal.
13. Phlebotomy is frequently accompanied by leakage of blood from the puncture site. Press dry gauze or absorbent cotton ball onto phlebotomy site until bleeding ceases, and cover with an adhesive bandage. The gauze or cotton contaminated with blood should be discarded in biohazard waste for disposal.
14. After the venipuncture procedure, label specimens with patient name, date, time, and test. Then place accession label on tube if available. Clean up, remove gloves and wash hands thoroughly with soap and water.
15. If there is an injury, spill, splatter, etc., on your person, wash affected area with soap and rinse with large volume of water.
16. Always report any injury or blood exposure while drawing/handling specimens to your supervisor immediately. Medical surveillance and follow-up of such an incident will be performed in accordance to the circumstances of the incident.
17. Follow correct tube collection order.

STATS and AFTER HOURS SERVICE AGREEMENT

A. Turn-around Time Commitment

STAT service requests shall be handled in four (4) hours or less from the time the request is received. This includes specimen collection, testing and phoning of test results. STAT service requests shall be for true medical emergencies only. It is critical that symptoms be provided on the requisition to show medical necessity for Medicare reimbursement and to minimize billings to the responsible party.

B. Service to Remote Areas

True STAT services are not available for customers located greater than forty (40) miles or greater than one (1) hour drive time of our testing lab in St. Louis. Should service be requested in addition to regular lab days, the lab will handle the request on the next routine route to the area, and the sample will be handled promptly upon arrival at the lab.

C. Tests which are “STAT ELIGIBLE” for Testing

<u>Chemistries*</u>	<u>Hematology</u>	<u>Therapeutic Drugs</u>	<u>Misc.**</u>
Sodium	CBC/diff/plat	Digoxin	Urinalysis
Potassium	Differential	Dilantin	Blood Cultures (Collection Only)
Chlorides	WBC	Phenobarbital	
Bicarbonate	Hemoglobin	Theophylline	
Glucose	Hematocrit		
BUN	Platelet Count		
Creatinine	PT		
Electrolytes	PTT		
Basic Metabolic Panel (BMP)			
Calcium			

Chemistries* : If a full chemistry profile is requested STAT, we will perform the chemistries listed above on a STAT basis, and the balance of the profile will be performed the next routine run of profiles.

Misc** : Requests for “culture & sensitivity” are not considered STAT Eligible. The specimen should be collected prior to starting antibiotic therapy, then store the sample as indicated on the requisition and notify the lab that there is pickup to be made on the next regular working day.

D. STAT Service Fee

There is a fee of \$27.00 for all STAT Service requests.

E. AFTER HOURS Service Fee

The regular working hours for our phlebotomy and courier staff are defined in this manual (refer to your Regional information pages 3-6). We request that service be scheduled during these regular hours. ALL requests for service that must be performed outside of those hours, and all day on Sundays and Holidays are considered STAT for billing purposes and the STAT Service Fee of \$27.00 does apply.

NOTIFICATION VALUES

BioTech Laboratory personnel will telephone these important lab values to the customer. The following lab values will be phoned if tests results exceed the high value or are less than the low value listed below.

CHEMISTRY	LOW	HIGH		THERAPEUTIC DRUG LEVELS	HIGH	
SODIUM	125.0	155.0	MEQ/L	AMITRIPTYLINE	400.0	ng/mL
POTASSIUM	2.5	6.0	MEQ/L	DESIPRAMINE	400.0	ng/mL
CHOLORIDE	80.0	125.0	MEQ/L	DIGITOXIN	35.0	ng/mL
HCO ₃	15.0	40.0	MEQ/L	DIGOXIN	2.5	ng/mL
GLUCOSE	40.0	350.0	MG/DL	DILANTIN (PHENYTOIN)	40.0	ug/mL
BUN	0.0	75.0	MG/DL	DOXEPIN	400.0	ug/mL
CREATININE	0.0	3.0	MG/DL	GENTAMICIN	12.0	ug/mL
URIC ACID	0.0	12.0	MG/DL	IMIPRAMINE	400.0	ug/mL
CALCIUM	7.0	12.5	MG/DL	LIDOCAINE	9.0	mcg/ml
MAGNESIUM	1.0	5.0	MG/DL	LITHIUM	2.0	MEQ/L
BILIRUBIN	0.0	10.0	MG/DL	NORPACE (DISOPYRAMIDE)	7.0	ug/mL
PHOSPHORUS	1.5	8.5	MG/DL	NORTRIPTYLINE	200.0	ng/mL
				PHENOBARBITAL	60.0	ug/mL
				PRIMIDONE (MYSOLINE)	24.0	ug/mL
HEMATOLOGY	LOW	HIGH		PROCAINAMIDE	12.0	ug/mL
HEMATOCRIT	20.0	55.0	%	QUINIDINE	10.0	ug/mL
HEMOGLOBIN	8.0	22.0	gm	TEGRETOL (CARBAMAZEPINE)	20.0	ug/mL
PLATELETS	75.0	600.0	Thou	THEOPHYLLINE	25.0	ug/mL
WBC	3.0	20.5	Thou	SALICYLATE	30.0	mg/mL
PT	10.0	25.0	Sec	TOBRAMYCIN	12.0	ug/mL
PTT	20.0	60.0	Sec	VALPROIC ACID	200.0	ug/mL

Qualitative Critical Results

Microbiology and parasitology

Positive results from Gram's stain or culture for blood, cerebrospinal fluid, or body cavity fluid; or positive India ink preparation. Positive rapid antigen detection by agglutination tests for Cryptococcus, group B streptococci, Haemophilus influenzae b, Neisseria meningitidis, or group A-B Streptococci. Salmonella, Shigella, or Campylobacter
Presence of malarial parasites

Clinical microscopy and urinalysis

Elevated WBC count in cerebrospinal fluid
Presence of malignant cells, blasts, or microorganisms in cerebrospinal fluid or body fluids.

Hematology

Presence of blasts on blood smear.
Presence of sickle cells (or aplastic crisis).

The above list of Notification Values includes only those tests for which a physician can take action which may affect the patient's condition. This list is consistent with Notification Values used throughout the lab industry nationwide, as determined in a national survey that was published in JAMA 263: 704-707, 2003.

Patient's Name:

Medicare # (HICN):

ADVANCE BENEFICIARY NOTICE (ABN)

NOTE: You need to make a choice about receiving these laboratory tests.

We expect that Medicare will not pay for the laboratory test(s) that are described below. Medicare does not pay for all of your health care costs. Medicare only pays for covered items and services when Medicare rules are met. The fact that Medicare may not pay for a particular item or service does not mean that you should not receive it. There may be a good reason your doctor recommended it. Right now, in your case, **Medicare probably will not pay for the laboratory test(s) indicated below for the following reasons:**

Medicare does not pay for these tests for your condition	Medicare does not pay for these tests as often as this (denied as too frequent)	Medicare does not pay for experimental for research use tests

The purpose of this form is to help you make an informed choice about whether or not you want to receive these laboratory tests, knowing that you might have to pay for them yourself.

Before you make a decision about your options, you should **read this entire notice carefully.**

- Ask us to explain, if you don't understand why Medicare probably won't pay.
- Ask us how much these laboratory tests will cost you (**Estimated Cost: \$** _____), in case you have to pay for them yourself or through other insurance.

PLEASE CHOOSE ONE OPTION. CHECK ONE BOX. SIGN & DATE YOUR CHOICE.

OPTION 1. YES. I want to receive these laboratory tests

I understand that Medicare will not decide whether to pay unless I receive these laboratory tests. Please submit my claim to Medicare. I understand that you may bill me for laboratory tests and that I may have to pay the bill while Medicare is making its decision. If Medicare does pay, you will refund to me any payments I made to you that are due to me. If Medicare denies payment, I agree to be personally and fully responsible for payment. That is, I will pay personally, either out of pocket or through any other insurance that I have. I understand I can appeal Medicare's decision.

OPTION 2. NO. I have decided not to receive these laboratory tests.

I will not receive these laboratory tests. I understand that you will not be able to submit a claim to Medicare and that I will not be able to appeal your opinion that Medicare won't pay. I will notify my doctor who ordered these laboratory tests that I did not receive them.

Date

Signature of patient or person acting on patient's behalf

NOTE: Your health information will be kept confidential. Any information that we collect about you on this form will be kept confidential in our office. If a claim is submitted to Medicare, your health information on this form may be shared with Medicare. Your health information which Medicare sees will be kept confidential by Medicare.

USING THE ADVANCE BENEFICIARY NOTIFICATION (ABN) IN THE PHYSICIAN OFFICE

What is an Advance Beneficiary Notification (ABN)?

A notification that is to be provided to Medicare beneficiaries in advance of laboratory testing when that testing is likely to be denied by Medicare. Typically, the denial is because the reason (diagnosis) provided for the testing does not meet Medicare's definition of Medical necessity or because the test has been ordered too frequently.

Does the Patient have to sign the ABN?

The ABN gives the patient two choices. 1) The opportunity to accept financial responsibility for the tests being ordered should they be denied by Medicare, or 2) the opportunity to refuse the testing.

When should the Patient be asked to read and sign the ABN?

The patient should be asked to read and sign the ABN if a "limited coverage" test has been ordered, and either 1) the diagnosis for the testing is not a covered diagnosis as defined by Medicare or 2) it has been ordered more frequently than Medicare considers to be necessary – even with a diagnosis that supports medical necessity.

What is a "Limited Coverage" Test?

Limited coverage means that Medicare only reimburses for this test if the testing is done for a reason set forth in the National Coverage Determination (NCD) or Local Medical Review Policy (LMRP) for that test. These are detailed in BioTech Lab's Medicare Information pamphlet.

How can I know which tests have "Limited Coverage"?

BioTech Lab indicates these tests in BOLD print on the requisition form. Additionally, a complete list can be found in BioTech Lab's Medicare Information Pamphlet.

What if the ICD9 code or diagnosis is not on the list?

There will be some cases where the diagnosis indicated in the chart or by the physician will not support Medicare payment, however, the physician does want the testing. In these cases, the patient should be instructed to read and sign the ABN.

In all cases, we must provide accurate information from the physician and from the chart. We cannot simply choose a code from the list unless it accurately describes the patient's condition and is part of the medical record.

What if a Patient refuses to sign the ABN, yet demands that testing be performed?

Guidelines suggest that if a patient demands service yet refuses to sign the ABN, two individuals should sign the ABN as witnesses. This, in effect, proves "advance beneficiary notification". However, because the patient has indicated refusal to pay, the lab prefers that either the tests not be performed or that another financial guarantor be indicated.

How often should an ABN be signed?

A new ABN should be signed each time lab services are ordered when it is believed that one or more tests will be denied by Medicare.

Test Name	Method	Test Code CPT	Collection Instruction
PROFILES			
ACUTE HEPATITIS PANEL <i>Includes: AAb, IgM; B Core Ab, IgM; B Surface Ag; C Ab</i>		AHP 80074	SST. Serum
ANEMIA PROFILE <i>Includes: Iron, Total, TIBC/UIBC % SAT, CBCP, Retic. Count</i>		ANP 83540 83550 85025 85044	SST Tube & Lavender Tube
BASIC METABOLIC PANEL <i>Includes: Sodium, Potassium, Chloride, HCO₃, BUN, Creatinine, Glucose, Calcium</i>		BMP 80048	SST. Serum.
BODY FLUID PANEL <i>Includes: Apperance, Uric Acid, Glucose, Cell Count, Crystals, RA, Differential, Protein Mucin Clot</i>		PSFI 89051 89060 84157 84560 82945	Red Top Tube. Serum.
COMPREHENSIVE METABOLIC PANEL <i>Includes: Sodium, Potassium, Chloride, HCO₃, BUN, Creatinine, Glucose, Albumin, Bilirubin-Total, Calcium, Alkaline Phosphatase, Protein-Total, AST(SGOT), ALT(SGPT)</i>		CMP 80053	SST. Serum.
ELECTROLYTES <i>Includes: Sodium, Potassium, Chloride, HCO₃</i>		EL 80051	SST. Serum.
EPSTEIN BARR VIRUS PROFILE <i>Includes: Epstein Barr VCA (IGG), Epstein Barr Nuclear Antigen, Epstein Barr VCA (IGM), Epstein Barr Early Antigen</i>		EBAP 86663 86664 86665x2	Red Top Tube Serum.
GENERAL HEALTH PANEL <i>Includes: Comprehensive Metabolic Panel (CMP), CBCP, TSH</i>		GHP 80050	SST and Lavender
HEAVY METAL PROFILE II <i>Includes: Lead, Mercury, Arsenic</i>		HMII 83655 83825 82175	2 Royal Blue Top Tubes.

Test Name	Method	Test Code CPT	Collection Instruction
HEPATIC FUNCTION PANEL <i>Includes:</i> Albumin, Bilirubin-Total, Bilirubin-Direct, Alkaline Phosphatase, Protein-Total, AST (SGOT), ALT(SGPT)		HFP 80076	SST. Serum.
LIPID PANEL <i>Includes:</i> Cholesterol-Total, Triglycerides, HDL Cholesterol		PCO 80061	SST. Serum.
OBSTETRIC PANEL <i>Includes:</i> CBCP, Blood Type, Rh (D), RPR, Rubella (IgG), Antibody Screen, Hep. B Surface Antigen		PNA5 80055	SST, Red Top and Lavender Tube
RAST BASIC FOOD <i>Includes:</i> IGE, Total, Egg White, Pork, Milk, Corn, Yeast, Wheat, Peanut, Soybean, Beef, Scallops, Cod Fish, Clam, Shrimp, Walnut		RASTBF 82785 86003x11	2SST's Serum.
RAST GENERAL PROFILE I <i>Includes:</i> House Dust Mite (D. Pteronyssinus), House Dust Mite (D. Farinae), Cat Epithelium, Alternaria, Dog Dander, June Kentucky Blue, Common Ragweed, Maple, Orchard, Grass, Cock Roach, Rough, Marsh, Cladosporium, Oak, Elder, Herbarum, Aspergillus Fumagatus, IGE, Total Call lab for additional information on RAST profiles.		RASTRAP 82785 86003x16	2SST's Serum.
RENAL FUNCTION PANEL <i>Includes:</i> Sodium, Potassium, Chloride, HCO ₃ , BUN, Creatinine, Glucose, Albumin, Calcium, Phosphorus		RFP 80069	SST. Serum.

Test Name	Method	Test Code CPT	Collection Instruction
INDIVIDUAL TESTS			
ABSOLUTE NEUTROPHIL COUNT	Automated Hematology Analyzer	ABNC 85004	Lavender Top Tube. Full Tube.
ADRENOCORTICOTROPIC HORMONE (ACTH)	Immunoassay	ACTH 82024	2 Lavender Top Tubes, Prechilled. Plasma, Frozen. Centrifuge. Separate plasma and freeze immediately.
ALBUMIN	Colorimetric	ALB 82040	SST. Serum.
ALDOLASE	UV Kinetic	ALD 82085	Red Top Tube. Serum, Frozen. Avoid Hemolysis. DO NOT USE SST.
ALPHA-1-ANTITRYPSIN	Nephelometry	A1A 82103	Red Top Tube. Serum. DO NOT USE SST. Overnight fasting preferred.
ALPHA-FETOPROTEIN, MATERNAL	Immunoassay	ALFPM 82105	SST. Serum. Indicated week of gestation, age, race, weight, and if mother is diabetic, and number of fetuses.
ALPHA-FETOPROTEIN, QUAD	Immunoassay	AFP4	SST. Serum. Indicated week of gestation, age, race, weight, and if mother is diabetic, and number of fetuses.
ALPHA-FETOPROTEIN, TRIPLE SCREEN <i>Includes: HCG-quantitative, Maternal, Estriol</i>	Immunoassay	AFP3 82677 84702 82105	SST. Serum. Indicated week of gestation, age, race, weight, and if mother is diabetic, and number of fetuses.
ALPHA-FETOPROTEIN, TUMOR MARKER	Immunoassay	ALFP 82105	SST. Serum. Test is designed for males and non pregnant females.
ALT (SGPT)	UV Kinetic	ALT 84460	SST. Serum. Avoid Hemolysis.
AMIKACIN	Immunoassay	AMIK 80150	1 Red Top Tube. Serum. DO NOT USE SST.
AMIKACIN, PEAK	Immunoassay	AMIKP 80150	1 Red Top Tube. Serum. DO NOT USE SST. Specify time of draw. See Collection Instructions on page 10.
AMIKACIN, TROUGH	Immunoassay	AMIKT 80150	1 Red Top Tube. Serum. DO NOT USE SST. Specify time of draw. See Collection Instructions on page 10.
AMINOPHYLLINE See...THEOPHYLLINE			
AMIODARONE (CARDARONE) <i>Includes: Metabolite</i>	HPLC	AMIO 80299	1 Red Top Tube. Serum. DO NOT USE SST.
AMITRIPTYLINE (ELAVIL) <i>Includes: Nortriptyline</i>	HPLC	AMIT 80152 80182	1 Red Top Tube. Serum. DO NOT USE SST. Plasma accepted.

Test Name	Method	Test Code CPT	Collection Instruction
AMMONIA	Enzymatic	AMMO 82140	Lavender Top Tube. FROZEN EDTA plasma. Avoid hemolysis. Keep on ice. Separate within 30 minutes. Freeze plasma immediately. Do not remove cap. Fill tube completely. Protect from light.
AMYLASE	Colorimetric	AMY 82150	SST. Serum.
ANAFRANIL (CLOMIPRAMINE)	Liquid Colorimetric	ANFR 80299	1 Red Top Tube. Serum. DO NOT USE SST.
ANGIOTENSIN-1-CONVERTING ENZYME (ACE)	Kinetic	ACE 82164	1 Red Top Tube. Serum. DO NOT USE SST.
ANTIBIOTIC SENSITIVITY, MINIMAL INHIBITORY CONCENTRATION (MIC) with DEFINITIVE BACTERIAL IDENTIFICATION	MIC	87186 87077	Organism isolated from our primary culture. Organism isolated and identified from the primary culture.
ANTIBODY SCREEN	Selectogen	ABSC 86850	2 Red Top Tubes. Full Tubes of Clotted Blood. DO NOT USE SST.
ANTI-STREPTOLYSIN O (ASO)	Agglutination	ASO 86060	SST.
ARTANE	GC	ART 80299	Red Top Tube. Serum. Room Temperature.
AST (SGOT)	UV Kinetic	AST 84450	SST. Serum.
ATIVAN (LORAZEPAM)	GC/MS	ATVN 80154	1 Red Top Tube. Serum. DO NOT USE SST. Plasma accepted.
AVENTYL See...NORTRIPTYLIN			
BETA-HCG See...PREGNANCY, SERUM QUANTITATIVE			
BETA-HCG, TUMOR MARKER	Immunoassay	BHCQTM 84702	SST. Serum from male or non-pregnant female.
BILIRUBIN, DIRECT	Colorimetric	BILD 82248	SST. Serum. Avoid Hemolysis.
BILIRUBIN, PANEL <i>Includes: Bilirubin, Total; Bilirubin, Direct; Bilirubin, Indirect</i>	Colorimetric	BILP 82247 82248	SST. Serum. Avoid Hemolysis.
BILIRUBIN, TOTAL	Colorimetric	BILT 82247	SST. Serum. Avoid Hemolysis.
BLOOD TYPE (A, B, O)	Modified Tube	BLTY 86900	Lavender Top Tube and Red Top Tube. Whole Blood and Serum. DO NOT USE SST.
BRAIN NATRIURETIC PEPTIDE (BNP) (Pro BNP)	Chemilluminescence	BNP 83880	SST Tube. Serum.
BRUCELLA ANTIBODY	Tube Agglutination	BRAG 86622	Red Top Tube. Serum.

Test Name	Method	Test Code CPT	Collection Instruction
BUN (BLOOD UREA NITROGEN) ◆	Colorimetric	BUN 84520	SST. Serum. Avoid Hemolysis.
BUSPAR (BUSPIRONE)	GC	BSP 80299	2 Lavender Top Tubes, Prechilled. Plasma. Serum accepted. DO NOT USE SST.
C. DIFFICILE TOXIN See...CLOSTRIDIUM DIFFICILE TOXIN			
CA 125	Immunoassay	CA125 86304	SST. Serum.
CA15-3	Microparticulate Enzyme Immunoassay	CA15 86300	Red Top Tube.
CA19-9	Immunoassay	CA19 86301	Red Top Tube.
CALCIUM ◆	Colorimetric	CA 82310	SST. Serum. Avoid Hemolysis. Do not open tube. Draw additional tubes for any other tests.
CALCIUM, IONIZED (CALC)	Colorimetric	ICA 82310 84155	SST. Serum.
CALCIUM, URINE, 24 HR.	Colorimetric	URCA 82340	24 Hr Urine container (Preserved w/10 ml 6N HCL) 50 ml Aliquot of 24 Hr Urine. Record Total Volume.
CARBAMAZEPINE See...TEGRETOL			
CARBON DIOXIDE (BICARBONATE HCO3) ◆	Colorimetric	HCO3 82374	SST. Serum.
CARCINOGENIC EMBRYONIC ANTIGEN (CEA)	Chemilluminescence	CEA 82378	SST. Serum. Refrigerate sample. Freeze if in transit more than 24 hrs.
CARDIOLIPIN ANTIBODY	Immunoassay	ACLA 86147	2 Light Blue Top Tubes (sodium citrate). Contact lab for further instructions.
CAROTENE	Colorimetric	CARO 82380	Red Top Tube. Serum. Protect from light. (Overnight fasting preferred).
CATECHOLAMINES, PLASMA, TOTAL AND FRACTIONAL	HPLC	CATTF 82383 82384	Green Top Tube. Plasma, Frozen. Transfer plasma into plastic vial and freeze immediately. Patient should avoid alcohol, coffee, tea, tobacco, and strenuous exercise prior to collection.
CATECHOLAMINES, URINE, FRACTIONAL	HPLC	CAT 82384	24 Hour Urine Container (preserve w/25 ml 6N HCL) 500 ml Aliquot of 24 Hour Urine. Record Total Volume.
CBC See...COMPLETE BLOOD COUNT W/DIFFERENTIAL			
CD4 (T-CELL COUNT) See LYMPHOCYTE SUBSET PANEL 5			

Test Name	Method	Test Code CPT	Collection Instruction
LYMPHOCYTE SUBSET PANEL 5	Flow Cytometry	TLSA5 86361	Lavender Top Tube. Store at Room Temperature.
CEA See...CARCINOGENIC EMBRYONIC ANTIGEN			
CELL COUNT BODY FLUID <i>Includes: Cell Count (WBC) and Differential</i>	Hemocytometer	CCSF 89050	Lavender Top Tube. Synovial Fluid. Refrigerate and deliver to lab same day.
CERULOPLASMIN	Nephelometric	CERP 82390	Red Top Tube. Serum. (Overnight fasting preferred).
CH50 See...COMPLEMENT- TOTAL (CH50)			
CHLAMYDIA AND G.C., DNA PROBE	DNA Probe Technique	DNACOM 87490 87590	Gen-Probe Collection Kit upon request. (Specify if male or female).
CHLAMYDIA, DNA PROBE	DNA Probe Technique	DNACH 87490	Gen-Probe Collection Kit upon request. (Specify if male or female).
CHLORIDE ♦	Colorimetric	CL 82435	SST. Serum.
CHLORIDE, 24 HR. URINE	Colorimetric	CLU 82436	24 Hr. Urine Container, 100 ml Aliquot of 24 Hr. Urine. Record Total Volume.
CHLORPROMAZINE <i>See...THORAZINE</i>			
CHOLESTEROL, HDL	Enzymatic	HDL 83718	SST. Serum.
CHOLESTEROL, LDL <i>See...LIPID PANEL</i>			
CHOLESTEROL, LDL, DIRECT	Enzymatic	DLDL 83721	SST. Serum.
CHOLESTEROL, TOTAL	Enzymatic	CHOL 82465	SST. Serum. A 12-14 hour fast is recommended.
CITRATES, URINE, 24 HR.	Enzymatic	CITU 82507	24 Hour Urine Container (No Preservatives) 60 ml Aliquot of 24 hr. Urine, frozen. Record Total Volume.
CLOMIPRAMINE <i>See...ANAFRANIL</i>			
CLONAZEPAM (KLONOPIN)	Liquid Chromatography	CLON 80154	1 Red Top Tube. DO NOT USE SST. Serum.
CLOSTRIDIUM DIFFICILE TOXIN A + B	EIA	CDT 87324	Sterile Specimen Container. 2 g. Fresh Stool. Refrigerate Toxin. Stable 3 days.
CLOZARIL (CLOZAPINE)	GC	CLZR 82491	2 Lavender Top Tubes. Serum Accepted. DO NOT USE SST.
CMV <i>See...CYTOMEGALOVIRUS ANTIBODY</i>			
COGENTIN (BENZTROPINE)	HPLC	COGN 80299	2 Lavender Top Tubes or 1 Red Top Tube. Plasma or Serum. DO NOT USE SST.

Test Name	Method	Test Code CPT	Collection Instruction
COLD AGGLUTINATION	Agglutination	COAG 86156	Red Top Tube. Send full tube of Clotted Blood. Do not refrigerate. DO NOT USE SST. Do not centrifuge.
COMPLEMENT C3	Nephelometric	CC3 86160	Red Top Tube. Serum, overnight fasting preferred.
COMPLEMENT C4	Nephelometric	CC4 86160	Red Top Tube. Serum, overnight fasting preferred and freeze immediately.
COMPLEMENT-TOTAL (CH50)	Enzyme Immunoassay	CH50 86162	Red Top Tube. Serum. Separate, Freeze. DO NOT USE SST.
COMPLETE BLOOD COUNT W/DIFF AND PLATELETS ♦ <i>Includes: WBC, Differential, RBC, Hemoglobin, Hematocrit; Platelet Count</i>	Automated Hematology Analyzer	CBCP 85025	Lavender Top Tube. Full tube.
COMPLETE BLOOD COUNT W/DIFFERENTIAL ♦ <i>Includes: WBC, Differential, RBC, Hemoglobin, Hematocrit</i>	Automated Hematology Analyzer	CBC 85004	Lavender Top Tube. Full tube.
COOMBS, DIRECT	Agglutination	COMD 86880	Lavender Top Tube. Whole Blood.
COPPER, PLASMA	IPC/Mass Spectrometry	CU 82525	Royal Blue Top Tube (EDTA). whole blood.
CORTISOL, FREE, 24 HR. URINE	Immunoassay	CORTF 82530	24 Hr. Urine Container (Preserve with 10 grams Boric Acid.) 50 ml Aliquot of 24 Hr. Urine. Record Total Volume.
CORTISOL, TOTAL	Immunoassay	CORT 82533	SST. Serum.
C-PEPTIDE	Immunoassay	CPEP 84681	Lavender Top Tube. Plasma freeze. (Overnight fasting preferred).
C-REACTIVE PROTEIN (CRP)	Agglutination	CRP 86140	SST. Serum.
C-REACTIVE PROTEIN, HIGH SENSITIVITY	Immunoturbidimetric	CRPHS 86141	Red Top Tube.
CREATINE KINASE (CK, CPK), TOTAL	UV Kinetic	CPK 82550	SST. Serum. Avoid Hemolysis. Separate within one hour.
CREATINE KINASE (CK, CPK), ISOENZYMES	UV Kinetic and Electrophoresis	CKISO 82552 82550	Red Top Tube. Serum. Avoid Hemolysis. FREEZE.
CREATININE, CLEARANCE, 24 HR.	Colorimetric	CRCL 81050 82575	SST and 24 Hr. Collection Container. (No preservatives) Serum collected at any point during the 24 hour urine collection. 50 ml Aliquot of 24 Hour Urine. Record Total Volume.
CREATININE, SERUM ♦	Colorimetric	CREA 82565	SST. Serum.
CREATININE, URINE, 24 HR.	Colorimetric	CRU 82570 81050	24 Hr. Urine Container (No Preservatives). 50 ml Aliquot of 24 Hour Urine. Record Total Volume.

Test Name	Method	Test Code CPT	Collection Instruction
CREATININE, URINE, RANDOM	Colorimetric	CRUR 82570	Sterile Specimen Container. 25 ml Urine.
CULTURE, AFB (INCLUDES SMEAR)	Concentration, radiometric detection and culture. Culture incubated for 8 weeks before determined to be negative. Positive isolates are identified by conventional methods or nucleic acid hybridization.	AFB 87116 87206	Sterile Specimen Container. Sputum from deep cough. First Morning specimen preferred.
CULTURE, ANAEROBIC	Bacteriologic Culture Anaerobic Chemical ID	ANC 87075 87076	Special Collection Kit Available upon request. Do Not Refrigerate. Specify source.
CULTURE, BLOOD	Bacteriologic Culture Anaerobic and Anaerobic 7 day incubation Biochemical Identification.	BLC 87040	Store at room temperature. Swab tops of tube with betadine. Cleanse draw area with betadine (do not touch). Draw 2 Yellow Top Tubes.
CULTURE, BODY FLUIDS	Bacteriologic Culture Biochemical Identification	BFC 87070 87163	Sterile Specimen Container or Culturette. Store at Room Temperature. Specify source.
CULTURE, CHLAMYDIA	Chlamydia Culture	CHC 87110	M4 Multi use media, refrigerate. Kit available upon request.
CULTURE, EAR	Bacteriologic Culture	EARC 87070	Culturette. Store at Room Temperature. (use one for each). Specify source right or left.
CULTURE, ENVIRONMENTAL	Bacteriologic Culture	ENVC	Culturette. Store at Room Temperature. Specify source.
CULTURE, EYE	Bacteriologic Culture	EYEC 87070	Culturette. Store at Room Temperature. (use one for each eye). Specify source.
CULTURE, FECAL	Bacteriologic Culture	FECC 87045	Sterile Specimen Container. 1 g Fresh Stool. Refrigerate.
CULTURE, FUNGAL	Fungal Culture	FUNC 87101 87102	Sterile Specimen Container. Submit scrapings or clippings from affected area. Store at Room Temperature. Specify source.
CULTURE, G.C.	Bacteriologic Culture	GCC 87081	Jembec Kit available upon request. Store at room temperature.
CULTURE, GENITAL	Bacteriologic Culture	GENC 87070	Culturette. Store at Room Temperature.
CULTURE, HERPES	Tissue Culture Inoculation Identification by characteristic cyopathic effect and fluorescent antibody stain.	HERC 87252	M4 Multi use media kit available upon request.

Test Name	Method	Test Code CPT	Collection Instruction
CULTURE, HERPES PRENATAL	Tissue Culture Inoculation Identification by characteristic cyopathic effect and fluorescent antibody stain.	HEPR 87252	M4 Multi use media kit available upon request.
CULTURE, NASAL	Bacteriologic Culture	NASC 87070	Culturette. Store at Room Temperature. (use one for each nare) & Label.
CULTURE, SKIN	Bacteriologic Culture	SKIC 87070	Sterile Specimen Container. Submit Skin Scrapings. Store at Room Temperature.
CULTURE, SPUTUM	Bacteriologic Culture	SPUC 87070	Sterile Specimen Container. 3 ml Sputum from deep cough. Store at Room Temperature.
CULTURE, STREP ONLY	Bacteriologic Culture Biochemical Identification.	SOC 87081	Culturette. Store at Room Temperature. Specify source.
CULTURE, THROAT	Bacteriologic Culture	THRC 87070	Culturette. Store at Room Temperature.
CULTURE, TISSUE	Bacteriologic Culture	TIS CU 87070	Sterile Specimen Container. Cover with sterile saline. Store at Room Temperature. Specify source.
CULTURE, URINE	Bacteriologic Culture	URC 87086	Sterile Specimen Container. 5 ml Urine. Refrigerate.
CULTURE, WOUND	Bacteriologic Culture Biochemical Identification.	WOC 87070	Culturette. Store at Room Temperature. Specify source.
CYSTINE, URINE, 24 HR.	Ion Exchange Chromotography	CYSU 82131	24 Hr. Urine Container. 200 ml Aliquot of 24 hour urine. Freeze. Record total volume. Age required for correct interpretation.
CYTOLOGY, NON-VAGINAL	Microscopic Examination	NVPAP 88108	Smear on 2 slides. Spray with fixative immediately. Do not allow to air dry. Specify source.
CYTOLOGY, SPUTUM	Microscopic Examination	CYTS 88108	Sterile Specimen Container.
CYTOLOGY, URINE	Microscopic Examination	CYTU 88108	Sterile Specimen Container. 24 ml Urine. If in transit over 24 hours, fix with 50% alcohol to equal amount of urine. Indicate on requisition if alcohol was added.
CYTOMEGALOVIRUS ANTIBODY (IGG)	EIA	CMV 86644	Red Top Tube. Serum. Do not use SST.
CYTOMEGALOVIRUS ANTIBODY (IGM)	EIA	CMVM 86645	Red Top Tube. Serum. Do not use SST.
D DIMER	Immunoturbimetro	DDIM 85379	Blue Top Tube
DEPAKENE See...VALPROIC ACID			

Test Name	Method	Test Code CPT	Collection Instruction
DESIPRAMINE (NORPRAMIN)	HPLC	DESIP 80160	1 Red Top Tube. Do not use SST. Serum. Plasma accepted.
DIASTASE See...AMYLASE			
DIAZEPAM See...VALIUM			
DIFFERENTIAL ♦	Microscopic Examination	DIFF 85007	Lavender Top Tube. Whole Blood.
DIGOXIN (LANOXIN) ♦	Immunoassay	DIG 80162	SST Serum.
DILANTIN See...PHENYTOIN			
DISOPYRAMIDE See...NORPACE			
DNA ANTIBODY (DOUBLE STRANDED)	Immunoassay	DNA 86225	1 Red Top Tube. Serum. DO NOT USE SST.
DOXEPIN (SINEQUAN)	HPLC	DOX 80166	1 Red Top Tube. Serum. DO NOT USE SST. Plasma accepted.
ELAVIL See...AMITRIPTYLINE			
ELECTROLYTES ♦ <i>Includes: Potassium, HCO₃, Sodium, Chloride</i>	Ion Specific Electrode and Colorimetric	EL 80051	SST. Serum. Avoid Hemolysis.
EOSINOPHILE COUNT	Automated Ematology Analyzer	EOCT 85007	Lavender Top Tube. Whole Blood.
EPSTEIN-BARR VIRUS ANTIBODY PANEL	EIA	EBAP 86664 86665x2	Red Top Tube.
ERYTHROPOIETIN	ICMA	EPO 82668	Red Top Tube. Serum.
ESTRADIOL	RIA	ESTD 82670	Red Top Tube. Serum. Specify age and sex on test request form.
ESTROGENS, FRACTIONAL, SERUM <i>Includes: Estradiol, Estriol, Estrone</i>	RadiolImmunoassay, Extraction, Chromotography	ESFS 82671	Red Top Tube. Serum.
ESTROGENS, TOTAL, SERUM	Extraction, RIA	ESTS 82672	Red Top Tube. Serum.
ETHOSUXIMIDE (ZARONTIN)	FPIA	ZAR 80168	1 Red Top Tube. DO NOT USE SST. Serum. Draw Sample 4 hours before next dose.
ETHOTOIN (PEGANONE)		ETHO 80299	2 Lavender Top Tubes or 1 Red Top Tube. DO NOT USE SST. Plasma or Serum.
EXTRACTABLE NUCLEAR ANTIGEN ANTIBODY	Immunoassay	ENA 86235x2	1 Red Top Tube. Serum. DO NOT USE SST. Avoid Hemolysis
F.E.P (FREE ERYTHROCYTE PROTOPORPHYRIN)	Fluorometry	FEP 84202	Lavender Top Tube. Whole Blood. Wrap tube in foil to protect from light.
FACTOR VIII FUNCTIONAL	Photo-metric Clot detection	FVA 85240	1 Blue Top Tube (sodium citrate). Separate and freeze immediately in a plastic vail. Do not thaw.

Test Name	Method	Test Code CPT	Collection Instruction
FECAL FAT (Same as Total Lipids Fecal)	Microscopy	FEFA 82705	Sterile Specimen Container. 2 g Fresh Stool. Refrigerate.
FECAL LEUKOCYTES	Microscopic Examination	FELE 87205	Sterile Specimen Container. 1 g Fresh Stool. Refrigerate.
FERRITIN	Immunoassay	FER 82728	SST. Serum.
FIBRINOGEN	Photo-optical Clot detection	FIB 85384	1 Blue Top Tube (sodium citrate). Allow blood to be drawn by vacuum. Invert tube six times immediately after drawing. Allow specimen to remain at room temperature for 30 minutes before centrifuging. Separate and freeze plasma in a plastic vial.
FLECAINIDE (TAMBOCOR)	FPIA	FLEC 80299	1 Red Top Tube. Serum. DO NOT USE SST. Plasma accepted.
FLUCETINE See...PROZAC			
FOLIC ACID (FOLATE)	Immunoassay	FOAC 82746	SST. Serum.
FOLLICLE STIMULATING HORMONE (FSH)	Immunoassay	FSH 83001	SST. Serum.
FTA-ABS (FLUORESCENT TREPONEMAL ANTIBODY)	Single Stain Immunofluorescence	FTA-ABS 86781	Red Top Tube. Serum.
GABAPENTIN (NEURONTIN)	HPLC	GABA 80299	2 Lavender Top Tubes. Plasma. Serum accepted. DO NOT USE SST.
GAMMA GLUTAMYL TRANSFERASE (GGT)	Kinetic	GGT 82977	SST. Serum.
GASTRIN	RIA	GAS 82941	Red Top Tube. Serum. Separate and freeze. Overnight fasting required.
GENTAMICIN (PEAK)	Immunoassay	GENTP 80170	SST Serum. Draw peak level 60 minutes after administering dose.
GENTAMICIN (TROUGH)	Immunoassay	GENTT 80170	SST Serum. Draw trough 15-30 minutes prior to administering dose.
GLUCOSE TOLERANCE TEST 2 Hour 3 Hour 4 Hour 5 Hour 6 Hour	Enzymatic	GTT2 GTT3 GTT4 GTT5 GTT6	Grey Top Tube or SST. Submit Plasma or Serum and 10 ml Urine for each specimen submitted. Indicate the collection time on both tube and sterile specimen container. Submit all samples, including urines, together with a single requisition. Avoid Hemolysis. Collect fasting specimens, then drink glucola. Collect specimens 1/2 hour and 1 hour after completing glucola, then in one hour increments for the desired length of testing.
GLUCOSE, 1 HOUR POST PRANDIAL	Enzymatic	GL1P 82947	Grey Top Tube or SST. Serum or Plasma. Avoid Hemolysis. Draw 1 hour after meal.

Test Name	Method	Test Code CPT	Collection Instruction
GLUCOSE, 2 HOUR POST PRANDIAL	Enzymatic	2HPP 82947	Grey Top Tube or SST. Plasma or Serum. Avoid Hemolysis. Draw 2 hours after meal.
GLUCOSE, FASTING ♦	Enzymatic	FBS 82947	Grey Top Tube or SST. Plasma or Serum. A 12-14 hour fast is recommended. Avoid Hemolysis.
GLUCOSE, RANDOM ♦	Enzymatic	GLUC 82947	Grey Top Tube or SST. Plasma or Serum. Avoid Hemolysis.
GLUCOSE-6-PHOSPHATE DEHYDROGENASE	Ultra Violet, Endpoint	G6PD 82955	Lavender Top Tube. Whole Blood. Do not freeze.
GLYCOHEMOGLOBIN See...HEMOGLOBIN, GLYCOSYLATED (A1C)			
GOLD, SERUM	Atomic Absorption	AU 80172	Red Top Tube. Serum. 1 Lavender Tube accepted.
GONORRHEA (GC), DNA PROBE	DNA Probe	DNAGC 87590	Gen-Probe Collection Kit upon request. (Specify if male or female).
GRAM STAIN	Microscopic Examination	GMSN 87205	Submit air-dried smears on 2 slides. Fix with 95% alcohol or gentle flame. Specify source of specimen.
GROWTH HORMONE, HUMAN	Flow Cytometry	HGH 83003	Red Top Tube (no additive). Serum. Refrigerate.
HALOPERIDOL (HALDOL)	HPLC	HAL 80173	Red Top Tube. Serum. DO NOT USE SST. Wrap in foil to protect from light or use light protected tubes. Lavender (EDTA) OR Green (Na Hep) also accepted.
HAPTOGLOBIN	Nephelometric	HAPT 83010	Red Top Tubes. Serum.
HCO3 See...BICARBONATE			
HEAVY METAL PROFILE II <i>Includes: Lead, Mercury, Arsenic</i>		HMII 83655 83825 83018	2 Royal Blue Top Tubes.
HEMATOCRIT ♦	Automated Hematology Analyzer	HCT 85014	Lavender Top Tube. Full tube.
HEMOGLOBIN ♦	Automated Hematology Analyzer	HGB 85018	Lavender Top Tube. Full tube.
HEMOGLOBIN, ELECTROPHORESIS	Electrophoresis	ELHG 83020	Lavender Top Tube. Whole Blood.
HEMOGLOBIN, GLYCOSYLATED, A1C	Immunoassay	A1C 83036	Lavender Top Tube. Full tube.
HEPATITIS A ANTIBODY, TOTAL (EIA)	Immunoassay	HAAT 86708	SST. Serum.
HEPATITIS A ANTIBODY-IGM	Immunoassay	HAAB 86709	SST. Serum.
HEPATITIS B CORE ANTIBODY (TOTAL)	Immunoassay	BCABT 86704	SST. Serum.

Test Name	Method	Test Code CPT	Collection Instruction
HEPATITIS B CORE ANTIBODY-(IGM)	Immunoassay	HBCAB 86705	SST. Serum.
HEPATITIS B SURFACE ANTIBODY	Immunoassay	HBSAB 86706	SST. Serum.
HEPATITIS B SURFACE ANTIGEN	Immunoassay	HBSA 87340	SST. Serum.
HEPATITIS BE ANTIBODY	Immunoassay	BEAB 86707	SST. Serum.
HEPATITIS BE ANTIGEN	Immunoassay	BEAN 87350	SST. Serum.
HEPATITIS C ANTIBODY	Immunoassay	HEPC 86803	SST. Serum. Avoid Hemolysis.
HERPES I & II	EIA	HE12 86695 86696	SST. Serum.
HISTOPLASMA ANTIBODY	Complement Fixation	HISTO 86698x2	Red Top Tube. Serum.
HIV ANTIBODY SCREEN	ELISA	HIV 86703	SST. Serum. To ensure confidentiality, identify by number, not name. Western Blot confirmation will be performed automatically if the antibody screen is positive.
HIV ANTIBODY WESTERN BLOT CONFIRMATION	Confirmation--Western Blot	HIVC 86689	SST. Serum. Western Blot confirmation will be performed automatically if the antibody screen is positive.
HLA-B27	Flow Cytometry	HLA 86812	Yellow Top Tube (ACD-B). Whole Blood. Do not refrigerate or freeze. Must reach lab within 24 hours of collection. Lavender (EDTA) or Green (Na Heparin) also accepted.
HYDROXY INDOLE ACETIC ACID-5	HPLC	HIAA 83497	24 Hr. Urine Container. (Preserve 6 N HCL.) 50 ml Aliquot of 24 Hr. Urine. Record Total Volume. Random Samples are accepted. (Reference Ranges do not apply.)
HYDROXYCORTICOSTEROIDS-17	Modified Porter-Silber Reaction	HYCT 83491	24 Hr. Urine Container. (Preserve w/10g Boric Acid). 100 ml Aliquot of 24 Hr. Urine. Record Total Volume.
IGE See...IMMUNOGLOBULIN E			
IMIPRAMINE (TOFRANIL) <i>Includes: Despramine metabolite</i>	HPLC	IMI 80174	Red Top Tube. DO NOT USE SST.
IMMUNE DEFICIENCY PANEL I See LYMPHOCYTE SUBSET PANEL 1			

Test Name	Method	Test Code CPT	Collection Instruction
LYMPHOCYTE SUBSET PANEL 1	Flow Cytometry	TLSA1 86355 86357 86359 86360	Lavender Top Tube.
IMMUNOELECTROPHORESIS, SERUM Includes: IGG, IGM, IGA and Protein Electrophoresis	Capillary Zone Electrophoresis, Densitometry	IMMU 82784x3 84165 84155 83883	SST. Serum.
IMMUNOELECTROPHORESIS, URINE Includes: Protein Electrophoresis	Electrophoresis	IMEL 84166	50 ML Aliquot of a 24 Hr. Urine collection. Record Total Volume.
IMMUNOGLOBULIN A	Nephelometric	IGA 82784	Red Top Tube. Serum. Overnight fasting preferred.
IMMUNOGLOBULIN E	ICMA	IGE 82785	Red Top Tube. Serum. Overnight fasting preferred.
IMMUNOGLOBULIN G	Nephelometric	IGG 82784	Red Top Tube. Serum. Overnight fasting preferred.
IMMUNOGLOBULIN M	Nephelometric	IGM 82784	Red Top Tube. Serum. Overnight fasting preferred.
IMMUNOGLOBULINS <i>Includes: IGG, IGM, IGA</i>	Nephelometric	IMGL 82784x3	Red Top Tube. Serum. Overnight fasting preferred.
INSULIN LEVEL	Immunoassay	INS 83525	SST. Serum. Overnight fasting required.
IRON BINDING CAPACITY See...IRON PROFILE			
IRON, TOTAL	Colorimetric	FE 83540	SST. Serum. Avoid Hemolysis.
KEPPRA (LEVETIRACETAM)	HPLC	KEP 80299	Red Top Tube. Serum.
KETOSTEROIDS-17	Modified Zimmerman Reaction	KETO 83586	24 Hr. Urine Container. (Preserve w/10g Boric Acid). 50 ml Aliquot of 24 Hr. Urine. Record Total Volume.
KLONOPIN See...CLONAZEPAM			
KOH SMEAR FOR FUNGUS	Microscopic Examination	KOH 87220	Sterile Specimen Container. Contact Lab for instructions. Specify source.
LACTIC DEHYDROGENASE (LD)	UV Kinetic	LD 83615	SST. Serum. Avoid Hemolysis. Do not freeze.
LDH ISOENZYMES	Agarose Electrophoresis	LDHISO 83625	Red Top Tube. Serum. Avoid Hemolysis. Room temp. Do not freeze.
LE LATEX	Agglutination	LE 86403	SST. Serum.
LEAD	Atomic Absorption Spectrometry	PB 83655	Lavender or Royal Blue Top Tube (EDTA). whole blood. Mix well to avoid clot formation.

Test Name	Method	Test Code CPT	Collection Instruction
LEAD/ZINC PROTOPORHYRIN	AA Fluorometry	PBZP 83655 84202	Royal Blue Top Tube (EDTA) and 1 Lavender Tube. Wrap in foil to protect from light.
LEUKOCYTE ALKALINE PHOSPHATE STAIN	Cytochemical	LAST 85540	Green Top Tube (Na Hep) - Do Not Use EDTA.
LIPASE	Colorimetric	LIP 83690	SST. Serum. Avoid Hemolysis.
LITHIUM	Colorimetric	LITH 80178	SST. Serum.
LUTEINIZING HORMONE (LH)	Immunoassay	LH 83002	SST. Serum, Separate serum and freeze immediately.
LYME DISEASE ANTIBODY	IFA	LYME 86618	SST. Serum.
MAGNESIUM	Colorimetric	MG 83735	SST. Serum.
MELLARIL (THIORIDAZINE)	HPLC	MELL 84022	1 Red Top Tube. DO NOT USE SST. Serum.
MESORIDAZINE See...SERENTIL			
METANEPHRINES, 24 HR. URINE	HPLC	META 83835	24 Hour Urine Container (Preserved with 6N HCL.) 50 ml Aliquot of 24 Hr. Urine. Record Total Volume.
MEXILETINE (MEXITIL)	HPLC	MEX 80299	2 Lavender Top Tubes or 1 Red Top Tube. Plasma or Serum. DO NOT USE SST.
MITOCHONDRIAL ANTIBODY	IFA Rat Kidney	AMAB 86255	1 Red Top Tube. Serum. DO NOT USE SST.
MONO TEST	Slide Agglutination	MONO 86308	SST. Serum.
MUCIN CLOT TEST	Clot Formation in Acid	MUCL 83872	Sterile Specimen Container. Synovial Fluid.
NAVANE See...THIOTHIXENE			
NORPACE (DISOPYRAMIDE)	FPIA	NOR 80299	1 Red Top Tube. Serum. DO NOT USE SST. Plasma accepted.
NORPRAMIN See...DESIPRAMINE			
NORTRIPTYLINE (AVENTYL, PAMELOR)	HPLC	NORT 80182	1Red Top Tube. Serum. DO NOT USE SST.
ANTI-NUCLEAR ANTIBODY (ANA)	IFA Hep 2	ANA 86255	SST. Serum. Avoid Hemolysis.
OCCULT BLOOD	Guicac Paper Test	OCBL 82270	Sterile Specimen Container. 2 g Fresh Stool. Refrigerate.
OCCULT BLOOD SCREENING	Guicac Paper Test	SOCBL G0107	Sterile Specimen Container. 2 g Fresh Stool. Refrigerate.
OSMOLALITY, SERUM	Freeze Point Depression	OSM 83930	Red Top Tube. Serum. DO NOT USE SST.
OSMOLALITY, URINE	Freeze Point Depression	OSMU 83935	Sterile Specimen Container. 40 ml random Urine.

Test Name	Method	Test Code CPT	Collection Instruction
OVA AND PARASITES	Microscopic Examination	O&P 87177	Special Kit Upon Request or 10 g raw stool in a sterile specimen container.
OXALATES, URINE, 24 HR.	Spectrophotometry	OXAU 83945	24 Hr. Urine Container (Preserve with 40 ml 6N HCL.) 100 ml Aliquot of 24 hour urine. Record Total Volume.
PAP SMEAR	Microscopic Examination	PAP 88164	1 Slide. Smear on 1 slide, properly fixed. Pap-paks available upon request.
PAP SMEAR (2 slides)	Microscopic Examination	PAP2 88164	2 Slide. Smear on 2 slides, properly fixed. Pap-paks available upon request.
PAP SMEAR (AUTO CYTE)	Automated Examination	PAPAC 88142	Auto site Kit Available upon request.
PAP SMEAR (THIN PREP)	Automated Examination	PAPTP 88142	Thin Prep Kit. Available upon request.
PARTIAL THROMBOPLASTIN TIME (PTT) ♦	Mechanical	PTT 85730	Light Blue Top Tube. Citrated whole blood can be accepted within 24 hours of collection. After 24 hours citrated, frozen plasma is preferred. Draw full tube, as correct ratio of blood to citrate (9:1) is critical and mix gently. Centrifuge, separate plasma and freeze promptly.
PATHOLOGY REVIEW	Microscopic Examination	PATH 88323	Peripheral Smears, with CBCP Results.
PEGANONE See...ETHOTOIN			
PHENOBARBITAL ♦	Colorimetric	PHEN 80184	Red Top Tube. Serum.
PHENYTOIN (DILANTIN) ♦	Immunoassay	DIL 80185	SST Serum.
PHENYTOIN (DILANTIN), FREE	Immunoassay	DILF 80186	Red Top Tube. DO NOT USE SST.
PHOSPHATASE, ACID, TOTAL	Enzymatic	APT 84060	Red Top Tube, Serum, frozen, Separate serum and freeze immediately. DO NOT USE SST.
PHOSPHATASE, ALKALINE	Colorimetric	ALP 84075	SST. Serum.
PHOSPHATASE, ALKALINE, ISOENZYMES	Electrophoresis	APHI 84080	Red Top Tube. Serum. DO NOT USE SST.
PHOSPHORUS	Colorimetric	PHOS 84100	SST. Serum.
PHOSPHORUS, URINE 24 HR.	Colorimetric	PHOSU 84105	24 Hr. Urine Container (Preserve with 10 ml HCL). 50 ml Aliquot of 24 Hr. Urine. Record Total Volume.
PINWORM PREP	Microscopic Examination	PINP 87172	Slide. Collect specimen on clear celophane tape. Tape to slide lengthwise.
PLATELET COUNT ♦	Automated Hematology Analyzer	PLCT 85049	Lavender Top Tube. Whole Blood.
SEMEN ANALYSIS, POST VASECTOMY	Microscopic Examination	PVSA 89310	Clean Container. Semen. Notify lab prior to collecting specimen. Deliver specimen to lab within 1 hour after collection.

Test Name	Method	Test Code CPT	Collection Instruction
POTASSIUM ♦	Ion Specific Electrode	K 84132	SST. Serum. Avoid Hemolysis.
POTASSIUM, URINE, 24 HR.	Ion Specific Electrode	KU 84133 81050	24 Hr. Urine Container (No Preservatives). 50 ml Aliquot of 24 Hr. Urine. Record Total Volume.
POTASSIUM, URINE, RANDOM	Ion Specific Electrode	KUR 84133	Urine.
PREALBUMIN	Enzyme Immunoassay	PRAL 84134	SST. Serum.
PREGNANCY, SERUM, QUALITATIVE	Immunoassay	BHCG 84703	SST. Serum.
PREGNANCY, SERUM, QUANITATIVE	Immunoassay	BHCQ 84702	SST Serum.
PREGNANCY, URINE, QUALITATIVE	Immunoassay	PREG 84703	15 ml Urine
PRIMIDONE (MYSOLINE) <i>Includes: Phenobarbital</i>	FPIA	MYSO 80184 80188	Red Top Tube. Serum. DO NOT USE SST.
PROCAINAMIDE Includes: NAPA	Immunoassay	PRCA 80192	Red Top Tube. Serum.
PROGESTERONE, SERUM	Immunoassay	PROG 84144	SST. Serum.
PROLACTIN	Immunoassay	PRLA 84146	SST. Serum.
PROLIXIN (FLUPHENAZINE)	Liquid Chromatography	PRLX 80299	1 Red Top Tube or Lavender Tube.. Serum. DO NOT USE SST. Plasma accepted. Wrap in foil to protect light.
PROSTATE SPECIFIC ANTIGEN (PSA), CANCER SCREENING	Immunoassay	SPSA G0103	SST. Serum. Freeze serum if in transit more than 24 hours.
PROSTATE SPECIFIC ANTIGEN (PSA)	Immunoassay	PSA 84153	SST. Serum. Freeze serum if in transit more than 24 hours.
PROSTATE SPECIFIC ANTIGEN (PSA), FREE AND TOTAL	Immunoassay	PSAF 84153 84154	SST. Serum.
PROTEIN, ELECTROPHORESIS, SERUM	Electrophoresis	ELPR 84165	SST. Serum.
PROTEIN, ELECTROPHORESIS, URINE	Electrophoresis	ELPRU 84166	24 Hr. Urine Container. 100 ml Aliquot of 24 Hr. Urine. Record Total Volume.
PROTEIN, TOTAL	Colorimetric	TP 84155	SST. Serum.
PROTEIN, URINE, 24 HR.	Colorimetric	PROU 84156	24 Hr. Urine Container 100 ml Aliquot of 24 Hr. Urine. Record Total Volume.
PROTEIN, URINE, RANDOM	Colorimetric	PROUR 84156	Sterile Specimen Container. 24 ml Urine.

Test Name	Method	Test Code CPT	Collection Instruction
PROTHROMBIN TIME (PT) ♦	Optical Clot Detection	PT 85610	Light Blue Top Tube. citrated, frozen plasma is preferred. Draw full tube, as correct ratio of blood to citrate (9:1) is critical and mix gently. Centrifuge, separate plasma and freeze promptly. Alternately, citrated whole blood can be accepted within 24 hours of collection.
PROZAC (FLUOXETINE)	Liquid Chromatography	PRZC 80299	2 Lavender or 1 Red Top Tube. Plasma or Serum. DO NOT USE SST.
PTH, C-TERMINAL (PARATHYROID HORMONE) Includes: Calcium	Immunoassay	PTH 83970 82310	SST. Serum. A 12-14 hour fast is recommended.
PTH, INTACT (PARATHYROID HORMONE) Includes: Calcium	Chemiluminescence	PTHI 83970 82310	SST. Serum. A 12-14 hour fast is recommended.
PTT See...PARTIAL THROMBOPLASTIN TIME			
QUINIDINE	Immunoassay	QUIN 80194	Red Top Tube. Serum.
RAPID STREP TEST See...STREP TEST, RAPID			
FOLIC ACID, RBC	Immunoassay	RBCF 82747	2 Lavender Tubes. Send Whole Blood.
RBC FOLATE See...FOLIC ACID, RBC			
RED BLOOD CELL COUNT (RBC) ♦	Automated Hematology Analyzer	RBC 85041	Lavender Top Tube. Full tube.
RENIN	Immunoassay	REN 84244	2 Lavender Tubes. Plasma, Frozen.
RETICULOCYTE COUNT	Microscopic Examination	RET 85045	Lavender Top Tube. Full tube.
Rh (D) TYPE	Agglutination	RH 86901	Red Top Tube and Lavender Top Tube. Serum or Whole Blood.
Rh ANTIBODY SCREEN See...ANTIBODY SCREEN			
RHEUMATOID FACTOR (RA), QUALITATIVE	Slide Agglutination	RA 86430	SST. Serum.
RHEUMATOID FACTOR (RA), QUAL, SYNOVIAL FLUID	Slide Agglutination	RASF 86430	Red Top Tube. Synovial Fluid.
RHEUMATOID FACTOR (RA), QUANTITATIVE	Slide Agglutination	RAT 86431	SST. Serum.
RPR	Agglutination	RPR 86592	SST. Serum. If positive. MHATP performed automatically unless lab is notified otherwise.
RUBELLA ANTIBODY (IGG)	Immunoassay	RUTI 86762	Red Top Tube. Serum. Avoid Hemolysis, Lipmia and contamination. DO NOT USE SST.

Test Name	Method	Test Code CPT	Collection Instruction
RUBEOLA ANTIBODY, IGG	Enzyme Immunoassay	RUB 86765	Red Top Tube. Serum. DO NOT USE SST.
RUBEOLA ANTIBODY, IGM	Immunofluorescence	RUBM 86765	Red Top Tube. Serum. DO NOT USE SST.
SALICYLATES	Colorimetric	SAL 80196	SST. Serum.
SEDIMENTATION RATE (ESR)	Westergren	WGSR 85651	Lavender Top Tube. Full tube.
SEMEN ANALYSIS, ROUTINE	Microscopic Examination	SEAN 89320	Clean Container. Semen. Notify lab prior to collecting specimen. Deliver specimen to lab within 1 hour after collection.
SERENTIL (MESORIDAZINE)	Liquid Chromatography	SERI 84022	2 Lavender Top Tubes or 1 Red Top Tube. Draw prior to next dose. Plasma or serum. DO NOT USE SST.
SEROTONIN - SERUM	HPLC	SERS 84260	Red Top Tube. Separate and Freeze Serum. DO NOT USE SST.
SGOT See...AST			
SGPT See...ALT			
SICKLE CELL	Electrophoresis	SICE 83020	Lavender Top Tube. Whole Blood.
SINEMET	HPLC-EC	SNMT 80299	Red Top Tube. Serum. Separate and Freeze immediately. DO NOT USE SST. Plasma acceptable.
SMOOTH MUSCLE ANTIBODY	IFA	ASMA 86255	1 Red Top Tube. Serum. DO NOT USE SST.
SODIUM ♦	Ion Specific Electrode	NA 84295	SST. Serum.
SODIUM, URINE, 24 HR.	Ion Specific Electrode	NAU 84300	24 Hr. Urine Container (No Preservatives). 50 ml Aliquot of 24 Hr. Urine. Record Total Volume.
SODIUM, URINE, RANDOM	Ion Specific Electrode	NAUR 84300	Sterile Specimen Container. 5 ml Urine.
STONE ANALYSIS	Infrared Spectrometry	STAN 82365	Sterile Specimen Container. 1 Stone or more.
STREP TEST, RAPID	Immunoassay	RST 86403	Culturette. Store at room temperature. Rapid Strep Testing is not available at all locations. Please call your local lab for availability.
LYMPHOCYTE SUBSET PANEL 1	Flow Cytometry	TLSA1	Lavender Top Tube. If CBC also required submit 2 Lavender Top Tubes.
LYMPHOCYTE SUBSET PANEL 4	Flow Cytometry	TLSA4	Lavender Top Tube. If CBC also required submit 2 Lavender Top Tubes.
LYMPHOCYTE SUBSET PANEL 5	Flow Cytometry	TLSA5	Lavender Top Tube. If CBC also required submit 2 Lavender Top Tubes.
T3, FREE	Immunoassay	T3FR 84481	SST. Serum.
TEGRETOL (CARBAMAZEPINE)	Immunoassay	TEGR 80156	SST. Serum.

Test Name	Method	Test Code CPT	Collection Instruction
TEGRETOL-10,11-EPOXIDE	HPLC	TEGRE 80156	Red Top Tube. Serum. DO NOT USE SST.
TESTOSTERONE, BIOAVAILABLE (FREE & WEAKLY BOUND)	RIA	TESTB 84403 84402	Red Top Tube. Serum.
TESTOSTERONE, FREE	RIA	TESTF 84403 84402	Red Top Tube. Serum.
TESTOSTERONE, SERUM	RadiolImmunoassay	TESTS 84403	SST. Serum.
THEOPHYLLINE (AMINOPHYLLINE) ◆	Immunoassay	THEO 80198	SST. Serum.
THIORIDAZINE See...MELLARIL			
THIOTHIXENE (NAVANE)	Gas Chromatogrphay/HPLC	NAV 80299	Red Top Tube. DO NOT USE SST. Serum. Plasma acceptable.
THORAZINE (CHLORPROMAZINE)	Liquid Chromatography	THOR 84022	Red Top Tube. DO NOT USE SST. Serum. Plasma acceptable.
THYROGLOBULIN	Immunoassay	THYG 84432	Red Top Tube. Serum.
THYROGLOBULIN ANTIBODY	ICMA	ATG 86800	1 Red Top Tube. Serum. DO NOT USE SST.
THYROID ANTIBODY PANEL	ICMA	ATPAN1 86800 86376	1 Red Top Tube. Serum. DO NOT USE SST.
T3, UPTAKE	Immunoassay	T3 84479	SST. Serum.
THYROID PEROXIDASE ANTIBODY (ANTI-TPO)	ICMA	ATPA 86376	1 Red Top Tube. Serum. DO NOT USE SST.
THYROXINE BINDING GLOBULIN	Immunoassay	THYBG 84442	Red Top Tube. Serum.
THYROXINE, FREE (T4)	Immunoassay	FRT4 84439	SST. Serum.
THYROXINE, TOTAL (T4)	Immunoassay	T4 84436	SST. Serum.
TISSUE EXAM	Microscopic Examination	TISS 88302	Preserve specimen in formalin ten times the volume of the specimen. For collection containers, contact lab. Specify source on container and lab requisition.
T-LYMPHOCYTE SUBSETS ASSAY See...LYMPHOCYTE SUBSET PANEL			
TOBRAMYCIN (PEAK)	Immunoassay	TOBP 80200	Red Top Tube. Serum. Draw Peak 30-60 minutes after infusion.
TOBRAMYCIN (RANDOM)	Immunoassay	TOBR 80200	Red Top Tube. Serum.

Test Name	Method	Test Code CPT	Collection Instruction
TOBRAMYCIN (TROUGH)	Immunoassay	TOBT 80200	Red Top Tube. Serum. Draw trough 15-30 minutes before dose.
TOFRANIL See...IMIPRAMINE			
TOXOPLASMA ANTIBODY, IgM	Enzyme Immunoassay	TXPA 86778 86777	Red Top Tube. Serum.
TOXOPLASMA ANTIBODY, IgG	Enzyme Immunoassay	TOXOG 86777	Red Top Tube. Serum. (Reflex to IGM).
TP-FA (TREPONEMA PALLIDUM, FLUORESCENT ANTIBODY)	Hemagglutination Inhibition	MHATP 86781	SST. Serum. Performed automatically if RPR is positive.
TRANSFERRIN	Nephelometry	TRNSF 84466	SST. Serum. Avoid Hemolysis.
TRAZODONE (DESYREL)	Liquid Chromatography	TRAZ 80299	Red Top Tube. Serum. Plasma acceptable.
TRICHAMONAS See... WET PREP			
TRIGLYCERIDES	Enzymatic	TRIG 84478	SST. Serum. A 12-14 hour fast is recommended.
T3, TOTAL	Immunoassay	TT3 84480	SST. Serum.
TSH (THYROID STIMULATING HORMONE)	Ultra-Sensitive Chemiluminescence	TSH 84443	SST. Serum.
URIC ACID	Colorimetric	URAC 84550	SST. Serum.
URIC ACID, URINE, 24 HR.	Colorimetric	URACU 84560	24 Hr. Urine Container (Preserve with 10g Boric Acid) 50 ml Aliquot of 24 Hr. Urine. Record Total Volume.
URINALYSIS ♦	Dip Stix and Microscopic Examination	UA 81000	Sterile Specimen Container. 15 ml Urine. Refrigerate.
URINALYSIS W/CULTURE AND SENSITIVITY IF NECESSARY ♦	Dip Stix and Microscopic Examination	UACI 81000	Sterile Specimen Container. 15 ml Urine. Refrigerate. The WBC, Bacteria, Nitrites and Leukocyte esterase results from the Urinalysis will be evaluated. If 3 or 4 of these are present, a culture will be performed. A sensitivity will be performed if there is growth in excess of 100,000 col/ml.
VALIUM (DIAZEPAM)	HPLC	VALI 80154x2	2 Lavender Top Tubes or 1 Red Top Tube. DO NOT USE SST. Plasma or Serum.
VALPROIC ACID (DEPAKENE)	Immunoassay	VAL 80164	SST. Serum.
VANCOMYCIN LEVEL (PEAK)	FPIA	VANP 80202	SST. Serum. Draw peak 1.5-2.5 hours after end of IV infusion.
VANCOMYCIN LEVEL (TROUGH)	FPIA	VANT 80202	SST. Serum. Draw trough prior to next dose.

Test Name	Method	Test Code CPT	Collection Instruction
VARICELLA ZOSTER ANTIBODY (IGG)	EIA	VZAG 86787	Red Top Tube. Serum. Fasting required.
VARICELLA ZOSTER ANTIBODY (IGM)	IFA	VZA 86787	Red Top Tube. Serum. Fasting required. Paired sera, 2-3 weeks apart are advisable to detect raising titers.
VITAMIN B12	RadiolImmunoassay	B12 82607	SST. Serum.
VITAMIN B12 AND FOLIC ACID (FOLATE)	RadiolImmunoassay	VBF 82607 82746	SST. Serum.
VITAMIN D (1,25 DIHYDROXY)	Column Chromatograph, Radioreceptor Assay	VD125 82652	Red Top Tube. Serum.
VITAMIN D (25 HYDROXY)	Radio Binding Assay	VD25 82306	Red Top Tube. Serum.
VMA (VANILLYMANDELIC ACID)	HPLC-Electrochemical Detection	VMA 84585	24 Hr. Urine Container (Preserved with 6N HCL) 50 ml Aliquot of 24 Hr. Urine. Record Total Volume.
WBC See...WHITE BLOOD COUNT			
WESTERN BLOT CONFIRMATION (HIV)	Western Blot	HIVC 86689	SST. Serum. To ensure confidentiality, identify by number, not name. Done Automatically if HIV is positive.
WET PREP FOR TRICHOMONAS	Microscopic Examination	WTPP 87210	Swab in Sterile Saline.
WHITE BLOOD CELL COUNT (WBC)	Automated Hematology Analyzer	WBC 85048	Lavender Top Tube. Full tube.
ZINC PROTOPORPHYRYN	Fluorometry	ZIPR 84202	Lavender Top Tube. Full tube. Wrap in foil to protect from light.
ZINC, PLASMA	Inductively Coupled Plasmal Mass Spectrometry	ZINC 84630	Royal Blue Top (EDTA). Send whole blood.
ZOLOFT (SERTRALINE)	HPLC	ZLFT 80299	1 Red Top Tube. Serum. DO NOT USE SST.

Test Name	Method	Test Code CPT	Collection Instruction	
TOXICOLOGY				
<p>In this procedure manual, drug screens have been divided into two categories: "medical" and "non-medical". In general, drug screening for treatment or rehabilitation programs is considered "medical", while drug screening for employment purposes is considered "non-medical". The drug screens listed below are the most commonly ordered. However, any of the following drugs can be ordered individually or in any combination to meet specific testing requirements of the client:</p>				
Amphetamines	Propoxyphene	Cocaine	Alcohol	Methadone
Cannabinoids	Barbiturates	Opiates	Benzodiazepine	Phencyclidine

1. MEDICAL DRUG SCREENS

ALCOHOL, BLOOD, QUANTITATIVE	ALC	2 Grey Top Tubes of whole blood. Submit 25 ml. (minimum) urine for testing. For drug screens listed on the left, the initial testing is performed by Immunoassay. Positive results are confirmed by alternate method (Fluorescence Polarization Immunoassay), with a quantitative result reported on all but Amphetamines.
AMPHETAMINES, BARBITURATES, BENZODIAZEPINES, CANNABINOIDS, COCAINE, METHADONE, OPIATES, PHENCYCLIDINE, PROPOXYPHENE	TOX 1	
ALCOHOL, AMPHETAMINES, BARBITURATES, BENZODIAZEPINES, CANNABINOIDS, COCAINE, METHADONE, OPIATES, PHENCYCLIDINE, PROPOXYPHENE	TOX 2	
AMPHETAMINES, CANNABINOIDS, COCAINE, OPIATES	TOX 4	
AMPHETAMINES, CANNABINOIDS, OPIATES, PHENCYCLIDINE, COCAINE	TOX5X	
AMPHETAMINES, BARBITUREATES, BENZODIAZEPINES, CANNABINOIDS, COCAINE, OPIATES, PHENCYCLIDINE	TOX 7X	
ALCOHOL, AMPHETAMINES, BARBITURATES, BENZODIAZEPINES, CANNABINOIDS, COCAINE, OPIATES, PHENCYCLIDINE	TOX 8	
CANNABINOIDS, COCAINE, OPIATES	TOX 23	
ALCOHOL, URINE	ETH	
AMPHETAMINES	AMP	
BARBITURATES	BAR	
BENZODIAZEPINES	BEN	
CANNABINOIDS (25 ng/ml cut off)	CAN	

Test Name	Method	Test Code CPT	Collection Instruction
COCAINE		COC	
METHADONE		MTD	
OPIATES		OPI	
PHENCYCLIDINE		PCP	
PROPOXYPHENE		PRX	
COMPREHENSIVE DRUG SCREEN: Drugs Screened for the Comprehensive Drug Screens: Amphetamines: Amphetamine, Methamphetamine Analgesics: Acetaminophen, Salicylates Antidepressants: Amitriptyline, Amoxapine, Desipramine, Doxepin, Fluoxetine, Imipramine, Loxapine, Maprotiline, Nortriptyline, Protriptyline, Trazodone Antiepileptics: Carbamazepine, Phenytoin Antihistamines: Chlorpheniramine, Diphenhydramine, Doxylamine, Methapyrilene, Pyrilamine Barbiturates: Amobarbital, Butabarbital, Butalbital, Pentobarbital, Phenobarbital, Secobarbital Benzodiazepines: Chlordiazepoxide, Diazepam, Flurazepam, Nordiazepam (as A Class) Cardiacs: Lidocaine, Propranolol, Quinidine/Quinine, Verapamil/Norverapamil Miscellaneous Agents: Cimetidine, Cocaine (Benzoyllecgonine), Ephedrine/Pseudoephedrine, Methocarbamol, Phencyclidine, Phenylpropanolamine, Phenytoin Sedates & Hypnotic: Ethchlorvynol, Glutethimide, Meprobamate Volatiles: Acetone, Ethanol, Isopropanol, Methanol		DRSS	Submit 2 Grey Top Tubes or one Red Top Tube (DO NOT USE SST). DO NOT OPEN TUBES.

2. NON-MEDICAL DRUG SCREENS

AMPHETAMINES, BARBITURATES, BENZODIAZEPINES, CANNABINOIDS, COCAINE, METHADONE, OPIATES, PHENCYCLIDINE, PROPOXYPHENE	TOX 1C	Submit 60 ml (minimum) urine in a Chain of Custody Kit.
ALCOHOL, AMPHETAMINES, BRABITURATES, BENZODIAZEPINES, CANNABINOIDS, COCAINE, METHADONE, OPIATES, PHENCYCLIDINE, PROPOXYPHENE	TOX 2C	For drug screens listed on the left, the initial testing is performed by immunoassay. Positive results are confirmed by GCMS (Gas Chromatography/Mass Spectrometry). All testing and confirmations are performed using cut-off levels established by NIDA/SAMSHA.
AMPHETAMINES, CANNABINOIDS, COCAINE, OPIATES, PHENCYCLIDINE	TOX 5C	
AMPHETAMINES, BARBITURATES, BENZODIAZEPINES, CANNABINOIDS, COCAINE, OPIATES, PHENCYCLIDINE	TOX 6C	
AMPHETAMINES, BARBITURATES, BENZODIAZEPINES, CANNABINOIDS, COCAINE, OPIATES, PHENCYCLIDINE	TOX 7C	
AMPHETAMINES, BARBITURATES, BENZODIAZEPINES, CANNABINOIDS, COCAINE, OPIATES, PHENCYCLIDINE		

Test Name	Method	Test Code CPT	Collection Instruction
ALCOHOL, AMPHETAMINES, BARBITURATES, BENZODIAZEPINES, CANNABINOIDS, COCAINE, OPIATES, PHENCYCLIDINE		TOX 8C	
CANNABINOIDS (50 ng/ml cut off)		CAN50	
AMPHETAMINES, CANNABINOIDS, COCAINE, OPIATES, PHENCYCLIDINE		NIDA.DOT	Test performed by NIDA certified lab. Submit split specimens in a NIDA Chain of Custody Kit.