



UNIVERSITY HEALTHCARE

**Berkeley Medical Center
Jefferson Medical Center**



Laboratory Directory - 2018

Test Procedures, Specimen Requirements and Instructions

August 2018

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A. LABORATORY INFORMATION

GENERAL INFORMATION

Berkeley Medical Center Laboratory (BMC)
304-264-1212; Fax 304-264-1302
Jefferson Medical Center Laboratory (JMC)
304-728-1661; Fax 304-725-1353

The laboratory staff at Berkeley Medical Center and Jefferson Medical Center will assist with any inquiries regarding services, test results, or collection.

Lab Draw Locations:

Berkeley County:

Berkeley Medical Center
Outpatient Testing Department – 1st floor
2500 Hospital Drive
Martinsburg, WV 25402
304-264-1651; Fax: 304-264-1252
Hours: Mon – Fri 0700-1730; Sat 0800-1200

Dorothy A. McCormack Center
Located on the BMC campus – 1st floor
304-264-1854; Fax: 304-264-1395
Hours: Mon – Fri 0700-1630

Medical Office Building 3
Located on the BMC Campus
880 North Tennessee Ave. Suite 100
Martinsburg, WV 25402
304-596-5706; Fax: 304-350-3285
Hours: Mon – Fri 0700-1530

Spring Mills
61 Campus Drive
Suite 153
Martinsburg, WV 25404
304-264-1000 ext 63101
Fax: 304-596-5166
Hours: Mon-Fri 0600-1700
Sat 0700-1200

Jefferson County:

Jefferson Medical Center
Outpatient Testing Department – 1st floor
300 South Preston St.
Ranson, WV 25438
304-728-1661/ Fax: 304-725-1353
Hours: Mon – Fri 0700-1700; Sat 0700-1200

Harpers Ferry Family Medical Center
171 Taylor St.
Harpers Ferry, WV 25425
304-535-1156
Hours: Mon – Fri 0730-1600

Accreditations and Licenses:

College of American Pathologists (CAP)
State of West Virginia Department of Health
American Association of Blood Banks – BMC
The Joint Commission

Proficiency Testing:

American Proficiency Institute
College of American Pathologists (CAP) – BMC

LAB COURIER SERVICE

Berkeley and Jefferson Medical Center laboratories have a scheduled courier service for the transportation of specimens to its laboratories.

The courier service is available Monday through Friday, excluding the following holidays:

New Year's Day
Memorial Day
Independence Day
Labor Day
Thanksgiving Day
Christmas Day

Times will vary throughout the day based on locations and office needs. More specific times are set by lab management when courier service is initiated.

For the Urgent Cares in Spring Mills, Inwood and Charles Town, courier service includes Saturday, Sunday and holidays as appropriate.

Appropriate specimen collection supplies and patient ordering forms for Lab Courier Clients are provided and delivered via courier service. To order, complete a Lab Courier Supply List request form.

REPORTING

Inpatient test results are available in the EPIC EMR.

For UHP physicians and those with EPIC availability, lab results are available upon testing completion. For non UHP physicians, outpatient test results are faxed to the office usually the same day.

Other options for receiving lab results include interfaced results or having reports printed to those physician offices with a network printer. Contact the laboratory for more information on these options.

All critical values will be called to the appropriate care giver or physician.

REFERENCE RANGES

Reference ranges on laboratory tests are printed on the patient report alongside the test results and are appropriately noted when results are outside of these ranges.

B. SPECIMEN COLLECTION

ORDERING

Physician orders **must** include the patient name, date of birth, date, test(s) ordered, diagnosis (including ICD10 codes), and physician's signature.

Inpatient orders are placed by the ordering provider or appropriate nursing personnel via the hospital information system.

Outpatient orders are generated from physician requests delivered by the patient to Outpatient Lab. The orders are then entered by outpatient testing personnel into the laboratory information system. If the physician has University Healthcare EPIC access, Outpatient orders may be placed electronically.

At Berkeley Medical Center, the 3 hour Glucose Tolerance Testing must be scheduled with Community Wide Scheduling (CWS) at 304-264-1297, option 2 (hours of operation: Mon – Fri 0800-1700).

At Jefferson Medical Center, no lab testing is scheduled. Testing is performed on a walk in basis.

Lab Courier Client patient demographics and orders must accompany the patient specimens delivered via the courier service. A copy of patient demographic, insurance information and a Laboratory Services Outpatient Request form must be completed on each patient with laboratory orders. Specimens for cytology, biopsy, and PAP smears must also include a Cytology or Surgical Pathology Requisition.

SPECIMEN CONTAINERS

The containers listed in the laboratory directory under Specimen Requirements, are used to demonstrate the tube(s), or other container(s) to be used for the test procedure. Container codes for blood specimens are typically based on the stopper color of Vacutainer® blood collection tubes. Many collection tubes contain preservatives and additives necessary for specific testing to give accurate results when used within expiration date, completely filled and well mixed. Therefore, it is important to completely fill all Vacutainer tubes containing additives and to mix well by inverting the tube several times after collection. In most cases, a minimum volume is also given in the laboratory directory under Specimen Requirements. This refers to the MINIMUM volume (typically in milliliters) necessary to perform the testing. If testing is performed on serum or plasma, two to three times more whole blood is necessary in the container.

CONTAINER	ADDITIVE
Yellow Top ACD Tube- Solution B	Acid Citrate Dextrose, Solution B
Adeza Fetal Fibronectin Collection	
Amniotic Fluid In Sterile Container Or Tube From Collection Kit	None
Light Blue Top Tube	Sodium Citrate
Hemocult Card	None
Clean Container	None
CSF Tube	None
Dark Blue- EDTA	EDTA
Dark Blue Top Tube- Plain	None
Blue FDP Tube – Request From Lab	Clotting Agent
Gen-Probe	None
Gray Top Tube	Sodium Fluoride
Green Top Tube- 4.5 ml	Lithium Heparin
Green Top Tube-10 ml	Sodium Heparin
Lavender Top Tube- 4.5 ml	EDTA
Lavender Top Tube- 6 ml	EDTA
Red Top Tube- 7ml	None
Smear On Slide	None
Hemogard Yellow Top SST tube- 5 ml	None
Stool 72 Hr Container	None
Sterile Cup	None
Clean Container	None
Urine Sterile Cup	None
Yellow Top ACD Tube- Solution A	Acid Citrate Dextrose, Solution A

Testing on 24 hour urine specimens requires containers prepared by laboratory personnel. Call the laboratory in advance of specimen collection for the proper container. Patients should be provided instructions for collecting 24 hour urine specimens. Patient instructions for collection of 24 hour urine are available by clicking the link in the selected test in the web catalog.

Patients must pick up 24 hour urine containers in the either the BMC Outpatient Testing area or the JMC Outpatient Lab.

NOTE – INSTRUCT PATIENT TO VOID IN PLASTIC CONTAINER, THEN CAREFULLY ADD CONTENTS TO THE 24 HOUR URINE CONTAINER. SOME CONTAINERS CONTAIN ACID.

SPECIMEN COLLECTION / TRANSPORT

Lab Courier Clients must collect, prepare, and properly store specimens for transport to the laboratory by the courier service. The integrity of the sample to be tested is directly related to the quality of the results. The Laboratory Test Directory lists specimen requirements including container type and minimum volume. Special requirements are also listed: for example, serum or plasma should be frozen, protect from light, draw fasting, etc.

Submit frozen specimens in plastic containers only (no glass).

Fasting indicates no consumption of food, drink (other than water), or chewing of gum for 8-12 hours prior to blood collection. Consult with clinician about whether to take medications on the day of the testing. Do not smoke, drink coffee, or engage in strenuous exercise prior to the test.

ALL specimens must be placed in a biohazard bag container with a zipper seal. Submit urine specimens in a separate biohazard bag – DO NOT place in the same bag as other specimens. Place the requisition and other forms in pouch (see ORDERING section).

BLOOD COLLECTION GUIDELINES

- Blood should not be drawn while intravenous solutions are being administered or drawn in the same syringe used to inject these solutions.
- Drawing blood through an indwelling catheter risks heparin contamination; flush the line with saline and draw 10-15 mL blood before coagulation specimens are drawn.
- Blood sample should be put into the appropriate tube and gently inverted several times immediately after being drawn.
- Fasting specimens preferred.
- Hemolysis can interfere with many tests; if serum is visibly red after centrifugation, redraw.
- Label specimen legibly with patient's full name (first and last), date of birth, date and time of collection, and initials of phlebotomist. Incorrectly labeled specimens are rejected by the laboratory and recollection is required, i.e. incorrect name, no name, etc.

See order of collection information from the tube vendor here:

<http://uh.testcatalog.org/catalogs/446/files/7557>

CHEMISTRY

- Blood samples for chemistry analysis **MUST BE CENTRIFUGED** prior to sending to the laboratory.
- For SST containers (SST5) allow blood to clot no longer than one hour. Centrifuge specimens and verify gel separation is complete, separating cells and serum. Specimens **MUST** be adequately spun, i.e. gel barrier must clearly separate serum from cells. Store specimens appropriately according to the test directory.
- For serum specimens (RED7, DB-PLAIN), please centrifuge. Leaving blood unspun for more than one hour can lead to invalid results. Remove serum to a plastic aliquot tube using a plastic pipette. Store specimens appropriately according to the test directory.
- Copper and Zinc – Must stand at Room Temperature for 30 mins prior to centrifugation and serum must be **CAREFULLY** poured into a plastic aliquot tube which has been certified as “metal-free”. No pipette may be used.

- CHEMISTRY PROFILES – Refer to the following table for tests included in chemistry profiles.

PROFILE	TESTS INCLUDED		MNEMONIC
Basic Metabolic Profile	Calcium Carbon Dioxide Chloride Creatinine GFR	Glucose Potassium Sodium BUN (Urea Nitrogen)	BMP
Comprehensive Metabolic Profile	Albumin Alkaline Phosphatase ALT (SGPT) AST (SGOT) Bilirubin, total BUN (Urea Nitrogen) Calcium Carbon Dioxide	Chloride Creatinine GFR Glucose Potassium Protein, total Sodium	CMP
Electrolytes	Carbon Dioxide Chloride	Potassium Sodium	LYTES
Hepatic Profile	Albumin Alkaline Phosphatase ALT (SGPT)	AST (SGOT) Bilirubin, total and direct Protein, total	HEP
Lipid Profile	Cholesterol HDL Triglycerides	LDL (calculated) VLDL (calculated)	LIPID
Renal Profile	Albumin BUN (Urea Nitrogen) Calcium Carbon Dioxide Chloride Creatinine	GFR Glucose Phosphorus Potassium Sodium	RENAL

HEMATOLOGY / COAGULATION

- Blood samples for hematology may remain at room temperature until courier pick up. (Hematology specimens should be received within 24 hours of collection.)
- Blood samples for coagulation studies (light blue top tube) must be left at room temperature until courier pick up (coagulation samples should be received within 4 hours of collection).

BLOOD BANK

- Blood samples for Blood Bank testing may be refrigerated or left at room temperature until courier pick up.
- When transfusion of products is required, patients must be admitted to the hospital or come through Outpatient Testing Services. Any patient to be transfused must be properly identified and

have a Blood Bank armband attached. Type and screens or blood type orders in which no product will be transfused do not require the armband.

- Blood Bank requires that additional testing and investigation must be performed in certain circumstances. Positive antibody screens, blood type discrepancies, or other inconsistencies must be resolved prior to transfusion of products or to identify possible future problems. For example, if an antibody screen is positive, additional testing is necessary to identify the antibody (antibody panel). If transfusion is indicated, it may also be necessary to test the donor red cell units (antigen cell typing) and perform crossmatches on units to ensure compatibility. Patients for pre-operative procedures with antibody problems will have an appropriate number of antigen-negative units identified and crossmatched. In these instances, the Blood Bank department adds any necessary testing and the results are reported.
- Any patient that requires irradiated products or special needs will require advance notice to insure product availability. If patient is found to need special products upon testing, there may be a delay in providing the needed blood products.

URINALYSIS

- Specimens for urinalysis should be refrigerated until courier pick up.

MICROBIOLOGY COLLECTION GUIDELINES

- Culture for urine and sputum can be held for several hours if refrigerated.
- Do NOT refrigerate stools, body fluids or swabs.
EXCEPTION: Stool for C. Diff testing is to be refrigerated unless delivered immediately to the laboratory.

VIRAL / CHLAMYDIA TESTS

- RNA Probe: Collect using Gen-Probe Aptima Collection Kit; stable at room temperature until printed expiration date. After sample collection, store at room temperature until courier pick up. Testing performed: GC, Chlamydia and Trichomonas. Collection kit types: Unisex, Urine and Vaginal.
- Thin Prep® PAP test vial: Testing for GC, Chlamydia, Trichomonas, HPV and HPV genotyping. Stable at room temperature until printed expiration date. After sample collection, store at room temperature until courier pick up.

ANATOMIC PATHOLOGY COLLECTION GUIDELINES

- The recommended specimen for PAP smears is the thin prep method. Collect using ThinPrep® PAP test; submit in PreservCyt® solution accompanied by a cytology requisition.
- Body fluid for cytology should be submitted as soon as collected and accompanied by a cytology requisition.
- Biopsy specimens must be submitted in a container either in 10% neutral buffered formalin or fresh (bring immediately to the laboratory) and accompanied by a surgical pathology requisition.
- For Fine Needle Aspirates, collect sample directly into 30 ml of cytolyt solution (furnished by lab); if specimen must be collected in an intravenous solution, use a balanced electrolyte solution.

C. BILLING

GENERAL

Laboratory billing is based on Current Procedural Terminology, or CPT codes. CPT codes are included in the Laboratory Test Directory. When a test or profile is associated with one CPT code, the laboratory billing will assign one charge. When a test or profile is associated with multiple CPT codes, the laboratory billing will assign multiple charges (one charge per each CPT code).

The CPT codes provided are based on AMA guidelines and are for informational purposes only. CPT coding is the sole responsibility of the billing party. Please direct any questions regarding coding to the payer being billed.

ANATOMICAL PATHOLOGY BILLING

- Cytology charges are generated according to the CPT codes associated with a requested procedure. Any special stains, needed for pathologist interpretation, will generate additional charges.
- Surgical pathology charges are defined by the appropriate tissue level, 1-6. Any special stains, needed for pathologist interpretation, will generate additional charges.

BLOOD BANK BILLING

- Blood Bank requires that additional testing and investigation must be performed in certain circumstances. For example, a positive antibody screen would require an antibody panel be performed to identify the antibody. Antigen cell typing and crossmatching may also be required if transfusion is indicated or in pre-operative situations. In these instances, the Blood Bank department adds any required testing, the results are reported, and the appropriate CPT codes will be billed.
- Blood Bank products generate billing when the product is transfused. Typically, there is a blood vendor processing charge generated per each product received. There may also be scenarios when additional patient testing is required when a product is ordered. For example, when a packed cell is ordered the patient may be charged for a blood type and Rh, antibody screen, and crossmatching. The Blood Bank department performs the required testing, the results are reported, and the appropriate CPT codes will be billed.
- Patients receiving blood components (packed cells, cryoprecipitate, fresh frozen plasma, platelets) are charged a daily administrative fee.

MICROBIOLOGY BILLING

- Negative cultures are billed per CPT as listed in the test directory.
- Positive cultures will incur additional charges for bacterial identification and sensitivity testing.