SPECIMEN COLLECTION GUIDELINES

The quality of laboratory results is contingent upon the quality of the specimens submitted. Proper specimen procurement, transport, and processing are essential to obtaining valid, timely laboratory results. All requisitions and specimens received for clinical testing must meet defined criteria for identification, collection, volume, and testing in order to be processed.

LABORATORY TEST REQUESTING

Requisition or Electronic Specimen Summary Information Requirements − for UCLA patients

- Patient’s full name (last name, first name)
- Full UCLA patient identification number or Medical Record Number (MRN), if available.
- Patient's date of birth
- Patient's gender
- Patient's location: inpatient location or outpatient encounter location
- Encounter date and visit number for outpatients
- Collection time and date
- Signature or initials of individual collecting specimen
- Requesting physician's full name and physician ID number, or other authorized person and ID number (attending physician ID is also required if the requesting physician is a resident),
- Physician must be licensed in California.
- For referring patients or specimens, the referring physician’s office address and phone number
- Specimen source and anatomical site if relevant
- Specific collection information (eg. peak or trough)
- Specific test(s) requested
- ICD-10 codes as required for outpatients and referred patients
- History, diagnosis, and treatment as required, if relevant (see individual test requirements)

Requisition Information Requirements − for referred patients (see note regarding billing authorization)

- Patient's identification number if to be included on report
- Patient's full name (last, first, and middle name or initial)
- Patient's date of birth
- Patient's gender
- Collection time and date
- Signature or initials of individual collecting specimen
- Requesting physician's full name and physician's ID number, address, and telephone number

- Physician must be licensed in California.
- Specimen source and anatomical site if relevant
- Specific collection information (eg, peak or trough)
- Specific test request(s)
- Diagnosis codes for Medical Necessity
- History, diagnosis, and/or treatment, if relevant (see individual test requirements)
- Reporting address and telephone number, if different from ordering physician.
- Billing address if different from reporting address
- Billing authorization
- Referring hospital/lab specimen number
- Copy of patient's insurance card if billing insurance
- Pathology consultation requests must also include a copy of the outside institution’s pathology report.

Requests to Add Tests to Existing Orders

A requisition form or electronic order for add-on is required when adding tests to existing orders. A fax request is also acceptable.

Statement Concerning Test Ordering for Medicare/Medicaid Patients

When ordering tests for which Medicare reimbursement will be sought, physicians should order only those tests which are medically necessary for the diagnosis and treatment of the patient's condition or complaints. Supporting evidence in the form of ICD-10 code is required for reimbursement and should be made available to the laboratory. Test panels in particular should only be ordered if all component tests are medically necessary. If only some components are needed, these should be ordered individually. Tests ordered which do not meet these criteria, which include most “routine screening” situations (ie, the absence of specific condition, complaint, or risk status) should not be submitted for Medicare reimbursement. Physicians should be aware that the Office of Inspector General (OIG) takes the position that a physician who orders medically unnecessary tests, for which Medicare or Medicaid reimbursement is claimed, may be subject to civil penalties under the False Claims Act.

REGISTRATION / BILLING

Outpatient Registration

All patients must be registered prior to receiving any laboratory service. If the patient has not been registered by the clinic or physician's office, the following information is required on a physician's order:

- Patient's full name, gender, date of birth
- Requesting physician's full name, physician's ID number, address and phone number
- Physician must be licensed to practice in California
- Tests requested with ICD-10 codes, or diagnosis

- Patient's demographics
- Insurance information

Billing Requirements for Referred Patients

The patient should bring his/her insurance card(s) in order to have the carrier billed; a copy of the insurance card(s) will be made. If cash payment or credit card payment is required, these will be handled by the cashier's office.

Specimens Referred by Hospitals or Outside Referral Laboratories Where Referring Entity Will Bill Patient Insurance

- Submit complete patient billing information with specimen, including copies of the insurance cards.
- In the absence of required information, the physician or facility will be billed for the services rendered.

SPECIMEN LABELING

Specimens should be labeled at the bedside or at the time of collection. The information on the label should be checked again to ensure the patient's demographics agree with those on the requisition/electronic system. The date and time of collection should then be noted on the requisition/electronic system. Identity of the collection personnel must be documented on the electronic or written requisition.

Smooth and correct placement of labels on specimens is essential to expedite specimen processing and testing.

- **Blood Tubes**:
  - Secure label around the tube without wrinkles or folds
  - Provide a window to check for clots and volume
  - Place label parallel to the blood tube and as close to the cap as possible.
  - Remove excess lower portion of the label if sample is short.
- **Microtainer™ Blood Tubes**:
  - Apply microtainer extender prior to labeling
  - Place patient label with the last name near the cap of the microtainer
  - Secure label around the tube
- **Blood Culture Bottles**:
  - Place the patient label vertically on each blood culture bottle.
  - Avoid covering the bar code window or expiration date on the bottle

Specimen Labeling Requirements − for UCLA patients using addressograph or computer generated labels

- Full UCLA patient identification number (MRN)
- Patient's full name (last, first, and middle name or initial)
- Birth date and gender

- Date and time of collection
- Specimen source (anatomic location), for Pathology specimens.
- Unlabeled, mislabeled, or missing information will result in delayed testing or rejection of the specimen.
- Patient location

Specimen Labeling Requirements − for referred patients

- Patient's identification number if to be included on report
- Patient's full name (last, first, and middle name or initial)
- Birth date and gender
- Date and time of collection
- Specimen source (anatomic location), for Pathology specimens.
- Unlabeled, mislabeled, or missing information will result in delayed testing or rejection of the specimen

SPECIMEN TRANSPORT

Specimen Transport within a Facility

Properly labeled specimens and accurately completed requisitions (if applicable) transported to the Department of Pathology and Laboratory Medicine must be packed to assure that all personnel are protected from biologic hazards associated with handling of laboratory specimens.

Packaging Instructions

- Assure all tubes are securely stoppered.
- Remove needles and cap syringes.
- Assure that specimen temperature requirement is met (eg, ammonia on ice).
- Tighten all specimen container lids.
- Place labeled specimens and extra loose labels in a sealed laboratory specimen transport biohazard bags.
- Place the requisition (if applicable) in the outside pouch of the bag.
- If ice is required, double bag with the bag containing specimen inside the bag with ice.
- Send specimen immediately to the Laboratory via pneumatic tube or hand deliver.
- Contaminated specimen containers or requisitions will be rejected

Specimen Transport Outside of a Facility − Delivered via Courier

Properly labeled specimens and accurately completed requisitions (if applicable) transported to the Department of Pathology and Laboratory Medicine must be packed to assure that all personnel are protected from biologic hazards associated with handling of Laboratory specimens.

Packaging Instructions

- Assure all tubes are securely stoppered.
- Remove needles and cap syringes.
- Assure that specimen temperature requirement is met (eg, ammonia on ice).
- Tighten all specimen container lids − contaminated specimens or requisitions will be rejected.
- Place labeled specimens and extra specimen labels in sealed Laboratory Specimen Transport Biohazard bags.
- Place the requisition in the outside pouch of the bag.
- Place specimen bags in a rigid, leak proof transport unit which maintains temperature requirements. The transport unit must be marked with a Biohazard Label.
- Deliver specimens immediately to the Laboratory.
- Package glass slides in appropriate sealed containers such as slide mailers or slide boxes to avoid breakage.

Specimen Transport via U.S. Mail Services or Commercial Carriers

Diagnostic specimens submitted to the Department of Pathology and Laboratory Medicine via U.S. mail services or commercial carriers either by ground, rail, or air transport must be packaged to comply with federal regulations.

Packaging Instructions

Room Temperature or Refrigerated Shipping -Use IATA Packaging Instruction 650

- Ship all specimens in leak proof containers.
- Secure all specimen tube stoppers and screw-cap aliquot containers and tighten all other specimen container lids. Preferably, parafilm all containers.
- **Note:** Contaminated specimens or requisitions will be rejected.
- Remove any syringe needles and cap the syringe.
- Place primary specimen containers and requisitions in a leak proof secondary packaging, i.e. biohazard specimen bag.
- Prepare specimens for shipping to maintain temperature requirements.
- The outer packaging need to be a rigid **leak proof** container with absorbent material and securely seal.
- Affix UN3373 and Biological Substance, Category B” label as needed.

Frozen Temperature Shipping* - Use IATA Packaging Instruction 904

- Pack secondary containers (i.e biohazard specimen bag) in a styrofoam container with 5 pounds of dry ice, and/or sufficient packing material to maintain temperature.
- Seal the styrofoam container with tape.
- Place the sealed styrofoam container in a rigid leak proof shipping box.
- Label the shipping box with DRY ICE UN1845 label; note the weight of the dry ice on the label.

- Ensure that the UN3373 and Biological Substance, Category B label is also placed on the outside box as needed.

Shipping Address

UCLA – Department of Pathology and Laboratory Medicine
Support Services or Specific Division (e.g., Pathology)
757 Westwood Plaza, RRH B403
Los Angeles, CA 90095

*Important for dry or wet ice shipments − **check next day delivery**.

CRITERIA FOR ACCEPTANCE OR REJECTION OF SPECIMENS / REQUISITIONS

All specimens and requisitions received in the Department of Pathology and Laboratory Medicine for clinical testing must meet defined criteria for identification, collection, and test request. If criteria are not met, physician or nursing staff will be notified so appropriate corrective action can be taken.

Unsatisfactory or Suboptimal Specimens

Specimens are considered unsatisfactory when collected, handled, or transported under conditions that do not permit the specimens, substances or constituents to be processed, assayed or counted with accuracy.

Inadequately Labeled Specimens

- **Unlabeled:** Any specimen container that does not have a label with two patient identifiers:
    - Patient's name (Last, First) **AND**
    - Patient medical record number or birth date
    - Pathology specimens must also include anatomic source. Avoid using abbreviations.

  The specimen label must be affixed to the container.

- **Specimen/Requisition Mismatch (mislabeled):** Patient information differs on the specimen and requisition.
- **Incompletely/Incorrectly Labeled:** Any specimen container that is missing the minimum (2) required patient identifiers:
    - Patient's name (Last, First) **AND**
    - Patient medical record number or birth date

Corrective Action for Labeling Errors

Inadequately labeled specimens will be rejected and discarded unless the specimen is considered irretrievable/irreplaceable. Specimens used for the purpose of transfusion cannot

be relabeled. Unlabeled or mislabeled specimens received by the Blood Bank will be rejected following the policy of the Blood and Blood Derivatives Committee policy.

Notification guidelines for sections other than the Blood Bank are as follows:

- Physician or nursing unit will be notified of the specimen rejection by telephone, page or email.
- Documentation of the report will be entered into the Laboratory Information System.
- If a specimen is to be recollected, it must be accompanied by a new requisition or electronic specimen order.

Irretrievable / Irreplaceable Specimens

Irretrievable/irreplaceable specimens are those which cannot be obtained again without risk to the patient or whose results may differ due to therapeutic intervention. These specimens will not be discarded until efforts for identification have been explored. Identification of some irretrievable /irreplaceable specimens may require authorization by a pathologist.

Examples of specimens which may be considered irretrievable/irreplaceable:

- Biopsies, operative specimens, and other tissues
- CSF, body and joint fluids
- Stones
- Nonline arterial blood gases
- Blood cultures or urine cultures prior to antibiotic therapy
- Catheterized or pubic tap urines
- Special procedural collections or timed specimens
- Neonatal specimens (includes cord blood) will be evaluated on an individual basis
- Hemolyzed coagulation specimens collected preanticoagulant therapy

Notification and corrective action guidelines for sections other than the Blood Bank are as follows:

- Physician or nursing unit will be notified of the specimen rejection by telephone, pager or email
- The individual who collected the specimen is identified.
- If a specimen is to be labeled/relabeled, the individual who collected the specimen is required to come to the clinical laboratory, present their identification badge, identify/correct the labeling error, and sign/date the Irreplaceable Specimen Identification Form.
- Anatomical pathology specimens only- may be transported via courier to off-site locations for corrective action.
- Documentation of specimen identification will be entered into the Laboratory Information System (LIS).
- An Event Report will be filed if necessary

BLOOD COLLECTION

Patients must be properly identified before collection begins. Verbal validation of identity by the patient or the patient's caretaker must be done whenever possible.

- Barcode scanner available
  - The patient's armband and the specimen label are scanned to uniquely identify the patient and with the specimen label
  - The barcode scanner must accept both scanned entries to verify identification
  - Cross check specimen label with patient ID band.
- Barcode scanner not available
  - Manual checks must be performed to ensure that patient information matches exactly the information on the test requisition (hardcopy / electronic) and specimen label.

Venipunctures are performed on arms and hands. Laboratory personnel will not perform phlebotomy in the following situations:

- The patient cannot be properly identified (eg, not wearing a hospital ID band).
- The patient or parent refuses to allow the procedure.
- The arm is restricted (ie, an I.V. running, a shunt or fistula in place, same side as a mastectomy, etc.).
- A heparin lock, catheter, I.V. line, or central line is the access site.
- The patient's isolation room is inadequately stocked for personal protective equipment (PPE).
- There have been two attempts each by two phlebotomists to draw blood.

Maximum Blood Volumes to be Drawn on Patients ≤14 Years of Age

Child's Weight (kg)	Maximum mL in 24 hour period (2.5% of TBV)
Less than 1	Discretion of the Clinical
1	2.5
2	4.5
3	6
4	8
5	10
6	12
7	14
8	16
9	18
10	20
11-15	22-30
16-20	32-40
21-25	42-50

26-30	52-60
31-35	62-70
36-40	72-80
41-45	82-90
46-50	92-100
Greater than 51	100

Order of Draw

Evacuated Tube System	
Evacuated Tube	**Invert Gently**
Blood Culture (Aerobic/Anaerobic/Mycology)	8-10 times
Blue*	3-4 times
Gold / Tiger	5 times
Red	5 times (plastic) Do **not** mix glass
Light / Dark Green	8-10 times
Pink / Lavender	8-10 times
Gray	8-10 times

*Use a discard tube when collecting from any line, including when collecting using a butterfly needle. The discard tube should be a non-additive or coagulation tube and does not need to be completely filled.

Microcollection Tubes	
Microcollection Tube	**Cap and Invert Gently**
Lavender	10 times
Green	10 times
Grey	10 times
Gold	5 times
Red	0 times

SKIN PUNCTURES

Skin punctures are performed on the finger or the foot (heel).

Finger stick

The finger puncture should involve a quick, deep puncture **across** the fingerprints, **not** parallel to the fingerprints. This will ensure the blood to bead up on the finger and not to run down the finger.

Heel Puncture

The heel puncture is made in the lateral or medial areas of the heel. Do not puncture on the posterior curvature. Heel punctures must be no deeper than 2.0 mm.

Note: When more blood is required than can be coaxed from a single sample, a second puncture is preferable to squeezing the puncture site for an extended period of time.

A limited number of test procedures can be performed on a micro blood sample collected in this manner. Micro test procedures generally require a blood sample ranging from 0.1-0.6 mL (100-600 µL). A minimum of 250 µL whole blood is required in the lavender top Microtainer™ tube to perform a CBC. If it is necessary to warm the puncture site, use a pack or moist towel heated no higher than 42°C to cover the site for at least 3-5 minutes.

LABORATORY TEST RESULT REPORTING / INQUIRY

Critical Value Reporting or Significant/Unexpected Findings

Critical values are test results that may be indicative of imminently life-threatening conditions requiring rapid clinical intervention (within 24 hours). Critical values fall significantly outside the normal range.

- Critical values are reported to the physician or nurse in charge of the patient. Physician name, ID code, and location are essential for expediting reporting of critical values.
- Notification is documented.
- In the event the requesting physician cannot be contacted, the resident “on call” for the service will be notified.

PATHOLOGY AND CLINICAL LABORATORY RESULT REPORTING / INQUIRY

- Telephone inquiry for results, specimen collection requirements, phlebotomy scheduling (if available), or slides to be sent, phone (310) 267-8100.
- Fax inquiry for results to be faxed, phone (310) 825-9044.

ON-LINE COMPUTER RESULT RETRIEVAL

UCLA Enterprise Inpatient and Outpatient Computer Results

- Stat, routine, and referred laboratory test results and pathology results are reported electronically through the Laboratory Information System (LIS). Access is by authorized code. Contact the ISS help desk for problems with the LIS. Phone (310) 267-2273.
- Stat reports are telephoned and routine reports sent via the pneumatic tube system if results are not available electronically (ie, LIS Computer down time).

COMPUTER GENERATED REPORTS

Clinical Laboratory

Inpatient

- A Discharge Summary is available when all clinical lab work is completed after discharge; contact Health Information Management (HIM) at 310-825-6021 for information.

Outpatient

- Physician reports are printed for outpatients for attending physicians and referring physicians who have requested this service by submitting an IT Service request.
    - https://mednet.uclahealth.org/it-service-catalog-quick-links/
- The physician's name and ID code are required in order to receive mailed reports.

Pathology

- Finalized reports auto-populate in the Electronic Health Record (EHR)

EXTERNAL REFERRED PATIENT REPORTS

Clinical Laboratory

- Physician reports are generated for referred patient results for those referring physicians who have requested this service by completing the “Ordering Physician” section on the requisition form.
- Patient requests can be found on https://www.uclahealth.org/patients-families/support-information/medical-records.

Pathology

- Physician reports are generated for referring physicians or institutions and faxed.