STANDARD OPERATING PROCEDURE

Specimen Collection SOP

Document no.	SOP-HLC-008
Revision	1.0
Owner	Laboratory Services Manager
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Review cycle	Every 12 months

1. Purpose

To collect patient specimens accurately, label them correctly at the bedside, and transport them to the laboratory in a way that preserves sample integrity and chain of custody.

2. Scope

Applies to blood, urine and swab specimen collection ordered through the EHR for laboratory testing. Specimen collection during surgical procedures is covered by a separate SOP.

Definitions

Chain of custody	A documented record of who collected, handled and transported a specimen, used when legal or forensic integrity must be proven.
Positive patient identification	Confirming a patient's identity with two identifiers immediately before specimen collection, matched against the order and label.
Mislabeled specimen	A specimen whose label does not exactly match the patient or order, which must be rejected or recollected rather than corrected after the fact.

3. Responsibilities

Phlebotomist / Collector	Verifies the order, identifies the patient, collects the specimen and labels it at the bedside before leaving the room.
Registered Nurse (RN)	Collects specimens outside phlebotomy hours and coordinates timing with medications or procedures.
Laboratory Technician	Receives, inspects and accessions specimens, and rejects specimens that fail acceptance criteria.
Courier / Transport Staff	Transports specimens to the laboratory within the required time and temperature conditions.

RACI matrix

Activity	Phlebotomist / Collector	Registered Nurse (RN)	Laboratory Technician	Courier / Transport Staff
Verify the collection order	R/A	R	C	-
Identify the patient and collect the specimen	R/A	R/A	-	-
Label the specimen at the	R/A	R/A	C	-

Activity	Phlebotomist / Collector	Registered Nurse (RN)	Laboratory Technician	Courier / Transport Staff
bedside				
Transport and accept the specimen	C	-	R/A	R

R = Responsible, A = Accountable, C = Consulted, I = Informed

4. Materials and PPE

Materials, tools and systems

- EHR specimen collection order and labels
- Barcode label printer
- Collection supplies (tubes, swabs, containers appropriate to the test)
- Specimen transport bags and biohazard labels
- Chain of custody form for forensic or legal specimens
- Cooler or transport container with temperature log where required

Personal protective equipment

- Disposable gloves
- Face protection for splash risk during collection

5. Procedure

Step	Task	Owner	Done
5.1	**Verify the collection order** Review the order in the EHR for the test requested, specimen type, container and any timing requirements such as fasting or trough level before going to the patient.	Phlebotomist / Collector	☐
5.2	**Gather the correct supplies** Select the correct tube, container or swab type for the ordered test, and print the specimen label from the EHR.	Phlebotomist / Collector	☐
5.3	**Identify the patient with two identifiers** Confirm the patient's identity by asking for full name and date of birth, or scanning the wristband, and match it against the printed label before touching any collection supplies. **Checkpoint:** Patient identity is confirmed with two identifiers immediately before collection, at the bedside.	Phlebotomist / Collector	☐
5.4	**Prepare the collection site** Clean the collection site with the appropriate antiseptic and allow it to dry fully before inserting a needle or swabbing, following the manufacturer's instructions for the antiseptic used.	Phlebotomist / Collector	☐
5.5	**Collect the specimen** Collect the specimen using the correct technique and volume for the ordered test, minimizing patient discomfort and avoiding contamination of the sample.	Phlebotomist / Collector	☐

Step	Task	Owner	Done
5.6	**Label the specimen at the bedside** Apply the label to the specimen container immediately, at the patient's bedside, before collecting the next specimen or leaving the room. **Warning:** Never label a specimen away from the bedside or after collecting specimens from more than one patient. Mislabeled specimens must be rejected, not relabeled.	Phlebotomist / Collector	☐
5.7	**Complete chain of custody documentation** For specimens requiring chain of custody, such as forensic or workplace testing, complete the chain of custody form with each person who handles the specimen and the time of transfer.	Phlebotomist / Collector	☐
5.8	**Package the specimen for transport** Place the labeled specimen in a leak-proof transport bag separate from the requisition paperwork, and use a cooler with a temperature log if the test requires refrigeration.	Phlebotomist / Collector	☐
5.9	**Transport the specimen promptly** Deliver or route the specimen to the laboratory within the time limit required for the test type, avoiding delays that could affect result accuracy. **Checkpoint:** Time-sensitive specimens reach the laboratory within the test's required transport window.	Courier / Transport Staff	☐
5.10	**Inspect and accession the specimen** Check the specimen against acceptance criteria, including label match, sample volume and condition, and log it into the laboratory information system.	Laboratory Technician	☐
5.11	**Reject and request recollection when needed** Reject any specimen that is unlabeled, mislabeled, hemolyzed, underfilled or otherwise does not meet acceptance criteria, and notify the ordering unit to recollect.	Laboratory Technician	☐
5.12	**Document collection in the patient chart** Record the time of collection, specimen type and any complications or patient response in the EHR.	Phlebotomist / Collector	☐

6. Quality checks

- 100 percent of specimens are labeled at the bedside before leaving the room.
- Specimen rejection rate stays at or below the laboratory's target.
- Time-sensitive specimens reach the lab within the required transport window.
- Chain of custody forms are complete for every forensic or legal specimen.

7. Records

- Specimen collection documentation in the EHR
- Chain of custody forms
- Specimen transport temperature logs
- Specimen rejection and recollection log

8. KPIs

- Specimen rejection rate
- Average time from collection to lab receipt
- Percentage of specimens labeled correctly at first collection
- Recollection rate by unit

9. Common mistakes

- Pre-labeling specimen containers before confirming the patient's identity.
- Labeling multiple patients' specimens together at the nurses' station.
- Leaving a specimen at room temperature when the test requires refrigeration.
- Skipping the chain of custody form for a specimen that requires it.

10. Revision history

Revision	Date	Description	Reviewed by
1.0	September 15, 2026	Initial release	Ilia Pirozhenko

Approval

Prepared by	Approved by	Date

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