SOP: Documentation and Transport of Blood Samples to Laboratory

This SOP details the **documentation and transport of blood samples to laboratory**, covering proper sample labeling, accurate record-keeping, secure packaging methods, temperature control requirements, timely transport procedures, and chain of custody protocols to ensure sample integrity and reliable laboratory analysis results.

1. Purpose

To describe the standard procedures for documenting and transporting blood samples to the laboratory in a manner that ensures sample integrity, traceability, and safety.

2. Scope

This SOP applies to all healthcare and laboratory staff involved in the collection, documentation, packaging, and transportation of blood samples to the laboratory.

3. Responsibilities

- **Phlebotomists/Collectors:** Ensure correct labeling, documentation, and timely handover of samples.
- **Transport Personnel:** Adhere to secure packaging, temperature, and chain of custody protocols during transport.
- **Laboratory Staff:** Receive, verify, and document arrival of samples.

4. Procedure

1. **Sample Labeling**
   - Label each blood sample tube at the point of collection using patient's full name, unique ID number, date and time of collection, and collector's initials.
   - Use indelible ink and barcode labels where applicable.
2. **Documentation**
   - Complete the sample collection form or Laboratory Requisition Form (LRF) with relevant patient and collection details.
   - Document any special handling or test requirements.
   - Record each sample in the specimen logbook or electronic system.
3. **Packaging**
   - Place samples in leak-proof primary containers; wipe any spillage before packaging.
   - Enclose primary containers in a secondary, sealable, leak-proof bag with absorbent material.
   - Place requisition forms outside the secondary bag to avoid contamination.
   - Use rigid, labelled transport containers for additional protection.
4. **Temperature Control**
   - Store and transport samples at recommended temperatures (e.g., 2â€“8Â°C for most blood samples unless specified otherwise).
   - Use validated cool boxes and monitor temperature during transit.
5. **Transport Procedures**
   - Transport samples to the laboratory as soon as possible, within predefined time frames (preferably within 2 hours of collection, unless otherwise specified).
   - Avoid direct sunlight and extreme temperatures.
6. **Chain of Custody**
   - Document every handoff with date, time, names, and signatures on a chain of custody form, if required.
   - Maintain continuous accountability and traceability from collection to laboratory receipt.
7. **Receipt at Laboratory**
   - Laboratory staff check condition and labeling of samples upon receipt.
   - Sign and date the receipt log and document any discrepancies or issues.

5. Documentation

Document	Completed by	Retained by
Sample Collection Form/LRF	Collector	Laboratory

Specimen Logbook/Electronic System	Collector	Department
Chain of Custody Form (if applicable)	All handlers	Laboratory
Receipt Log	Laboratory Staff	Laboratory

6. Safety and Compliance

- Follow all local biosafety and biohazard regulations during sample handling and transport.
- Wear appropriate PPE (Personal Protective Equipment).
- Report any sample loss, leakage, or exposure incidents according to protocol immediately.

7. References

- WHO â€“ Guidelines on Drawing Blood: Best Practices in Phlebotomy
- CLSI GP33 â€“ Accuracy in Specimen Labeling
- Local Institutional Policies