
SOP: Blood Sample Collection

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1. Purpose

This SOP describes the serum collection procedure for storage in the SickleInAfrica biorepository. All serum samples will be collected by a registered and trained nurse or sister.

2. Background

Serum will be used in genomic studies.

3. Scope

To present the procedure for collecting and handling serum samples in participants.

4. Equipment and reagents

1. 4mL Serum Separating (SS) tube with gel
2. 3.5mL sterile Pasteur (or transfer) pipette
3. Cryovials (suggest using 1.0 mL or 1.8 mL)
4. Cryobox for 1.8mL cryotube, 9x9 inlay
5. Vacutainer holder and needles (21G),butterfly needle(23G) and barrel
6. Puncture-resistant(sharps) container
7. Waste bag
8. Indelible marker
9. Cotton wool
10. 70% alcohol (ethanol) or alcohol pad
11. Phlebotomy plaster
12. Tourniquet
13. Disposable gloves
14. Standard centrifuge

5. Responsibilities

The registered and trained nurse or sister is responsible for collecting specimens and that the vials are labeled accordingly. All inventory should be maintained by the researcher.

6. Procedure

- Collect blood in the appropriate serum separator tube (see SOP for blood collection).

- Gently invert the tube 8-10 times, and let the tube sit in an upright position for at least 15-30 minutes at room temperature to allow the blood to clot.
- Label sample with appropriate participant code.
- **Within 2 hours from time of collection**, spin the tubes at 1000 G using a standard room temperature centrifuge for 10-15 minutes.
- The blood separates into liquid Serum on top separated from the clotted cells at the bottom by the gel
- Recover serum with transfer pipette.
- Place ~0.5 mL of serum into each cryovial tube.
- Clearly label the amount of serum in each tube.
- Label each aliquot with appropriate participant code and date of collection.
- **No identifying information** should be included on the label.
- Discard SS tube with gel and the pipette.

7. Storage

- Store Serum samples at -20°C for 25 minutes, and then transfer to -80°C

8. References

- <https://www.bu.edu/sscores/cores/proteomics/serum-sample-collection-shipping-procedures/#:~:text=Collection%20Procedure,sample%20with%20appropriate%20study%20code.>

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1.0		Victoria Nembaware	Chandre Oosterwyk	None