INTEGRATED BIOREPOSITORY OF H3AFRICA UGANDA

MAKERERE UNIVERSITY

COLLEGE OF HEALTH SCIENCES

STANDARD OPERATING PROCEDURE

TITLE: **BLOOD PROCESSING (ALIQUOTING)**	**PAGE 1 of 5**

SOP #: **IBRH$_3$AU-SOP-BSP-016.4**	Effective Date: **01/09/2018**	Next Rev: **SEPT 2021**
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VALIDATION AND RETIREMENT

	NAME	DATE
Validated by:		
Retired by:		

ACKNOWLEDGEMENT OF READING AND UNDERSTANDING

I have received and understood the training on this SOP. If I have not understood the training I have asked the trainer to retrain me to ensure that I completely understand all the requirements.

	NAME	SIGNATURE	DATE
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1. PURPOSE

To describe the standard procedures involved in processing and storing of study blood (EDTA and Red Top) samples after the sample has been delivered to the laboratory.

2. SCOPE

Laboratory technician aliquoting blood.

3. RESPONSIBILITIES

Personnel	Responsibility
Lab tech	Retrieve biospecimen from storage Aliquot biospecimen
Data manager	Provide manifest for biospecimen retrieval
Lab Manager	Coordinate biospecimen shipping

4. EQUIPMENT AND MATERIALS

4.1 Lab coat

4.2 Face Mask

4.3 Protective eye wear

4.4 Gloves

4.5 Disinfectant wipes

4.6 Pipette(s) and pipette tips

4.7 Specimen Racks

4.8 Centrifuge Buckets with gasket seals

4.9 Biological Safety Cabinet (BSC)

5. GENERAL CONSIDERATIONS

5.1.1 Correct specimen collection bottles and correct request forms must always be used and verified at each collection.

5.1.2 Ensure that all samples are well labelled with appropriate ID.

5.1.3 Keep samples on ice, with ice packs at all times.

5.1.4 Gloves must be worn at all times when handling specimens. This includes during removal of the rubber stopper from the blood tubes, centrifugation, pipetting, disposal of contaminated tubes, and cleanup of any spills.

5.1.5 Tubes, needles, and pipets must be properly disposed of in biohazard containers, in accordance with institutional requirements.

5.1.6 The time between arrival at the laboratory and freezing (dry ice, liquid nitrogen or -80 ^{o}C freezer storage) should be maximally 60 minutes.

6. PROCEDURE

6.1 EDTA SAMPLE PROCESSING (2ML EDTA AND 500 UL EDTA)

6.1.1 Allow blood to reach room temperature and spin down in the **centrifuge** at ~100g / 2200-2500 RPM (depends on centrifuge diameter) for 10 min at 6^{o} C to obtain plasma.

6.1.2 Pipette the specimen from the original tube to the aliquot tube, ensuring that labeling is correct.

6.1.3 Eject contaminated tips into the Bleach bucket.

6.1.4 Non-contaminated tips can go in a bench top biohazard receptacle.

6.1.5 Place aliquoted specimens in cryobox, then **note** the position of each biospecimen in the cryobox.

6.1.6 Place the cryobox in the freezer and note its position.

6.1.7 Update database to indicate actual volumes of specimens after aliquoting (refer to SOP: IBRH3AU-SOP-RDM-002 inventory verification).

6.2 SERUM SAMPLE PROCESSING

6.2.1 Serum Samples (red top tubes) should be spun after blood has completely clotted, i.e., after ~30 minutes of collection from the patient.

6.2.2 Allow blood to reach room temperature and spin down in the **centrifuge** at ~100g / 2200-2500 RPM (depends on centrifuge diameter) for 10 min at 4^{o} C to obtain plasma.

6.2.3 Pipette the specimen from the original tube to the aliquot tube, ensuring that labeling is correct.

6.2.4 Eject contaminated tips into the Bleach bucket.

6.2.5 Non-contaminated tips can go in a bench top biohazard receptacle.

6.2.6 Place aliquoted specimens in cryobox, then **note** the position of each biospecimen in the cryobox.

6.2.7 Place the cryobox in the freezer and note its position.

6.2.8 Update database to indicate actual volumes of specimens after aliquoting (refer to SOP: IBRH3AU-SOP-RDM-002 inventory verification).

7. REVISION HISTORY

Revision No	Effective Date	Description of Changes Made from Preceding Revision	Approved by/ Date

ANNEX 1: DOCUMENTATION OF SUGGESTED CHANGES TO THIS SOP

CLAUSE	SUGGESTION	BY	DATE