

THE CHILDREN'S HOSPITAL AT WESTMEAD

TUMOUR BANK

STANDARD OPERATING PROCEDURE

BLOOD SAMPLE PROCESSING			
Document Number: TB 05.03		Issue Date: 19/09/2012	
Version: 005			
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REVISION HISTORY			
Date	Amendment Details	Superseded version	Revised by
01/05/2009	New Document		
01/07/2010	Annual Review	05.03.001	KJ/AR
01/12/2011	Annual Review	05.03.002	AR
20/02/2012	Expansion of blood collection methods	05.03.003	AR
19/09/2012	Annual Review	05.03.004	AR

1. PURPOSE

The purpose of this document is to outline standardised procedures to follow when snap freezing blood samples in order to provide maximum benefit to the end users.

2. SCOPE

This protocol covers all blood samples collected from oncology or non-oncology patients at The Children's Hospital at Westmead (CHW), for there are residual samples, and the Tumour Bank(TB) is subsequently contacted for processing and storage.

3. RESPONSIBILITIES

The TB Clinical Research Associate (CRA), Project Officer and Research Assistants (RA) must ensure that these protocols are adhered to at all times when processing and storing blood samples.

4. MATERIALS, EQUIPMENT AND FORMS

- 2.0ml Cryovials with red lids
- Cryovial lids with inserts – white
- Disposable plastic transfer pipettes
- Racks to hold tubes while processing
- Tongs
- Freezer storage boxes
- Laboratory Bench Sample Record Sheet form
- Metal cup for aliquotting liquid nitrogen into
- Personal protective equipment - gowns, gloves, safety glasses

5. METHOD

5.1 Sample Processing and Labelling

Aliquot and snap freeze blood sample as soon as possible after retrieval.

- a. If there are any delays in processing, store the sample in the TB 4°C refrigerator.
- b. Aliquot (into red cryovials) the blood sample into 2.0mL lots using a disposable plastic transfer pipette.
- c. Press a white insert into the lid.
- d. Label the side of the cryovial with the following information
 - Patient medical reference number (MRN)
 - Date of collection
 - Type of specimen (blood)
- e. Label the insert of the lid with the following information
 - Volume of sample in millilitres

5.2 Sample Freezing and Storing

- a. Decant liquid nitrogen from the large dewar (in the liquid nitrogen store room on Level 3) into a small dewar and transport to laboratory.
- b. In the laboratory, aliquot liquid nitrogen into a metal cup.
- c. Using tongs, immerse cryovial containing sample into liquid nitrogen for approximately 15 seconds or until sample changes colour.
- d. Record the volume of each cryovial on request form.
- e. Place frozen cryovial containing sample in next available freezer box space in Tumour Bank freezer, according to the reference sheet to the right of the laboratory bench space.
- f. Record box number, row and column position on request form.

5.3 Sample Recording

Record the following details of sample in the TB Laboratory Bench Sample Record Sheet form for entry into the TB database.

- Patient MRN
- Surname and first name
- Date of birth
- Sample type
- Sample Source
- Date of sample collection
- Number and volume of sample
- Freezer box number and position
- Any additional notes

6. SAFETY

- Adhere to all local chemical and sharps policies.
- Dispose empty bone marrow tubes, pipette tips and soiled gloves in accordance with local regulations for handling of potentially infectious biological material.