Standard Operating Procedure

Procedure for CBC Tests

I. POLICY: The Puerto Rico Clinical and Translational Research Consortium (PRCTRC) ensure the safety and well-being of laboratory personnel processing CBC (Complete Blood Count) tests.

II. PURPOSE: The objective of this Standard Operating Procedure (SOP) is to outline the proper processing of CBC test in whole blood samples in the Puerto Rico Clinical and Translational Research Consortium laboratory #122. This procedure also ensures that the integrity of the specimens is preserved for accurate laboratory analysis.

III. Area(s) of Responsibility: This SOP applies to the laboratory personnel.

IV. Procedures:

1. Specimens should be sent to the laboratory as soon as possible.
   - Transportation shall be accomplished in such a way as to minimize any damage to the specimens or containers.
   - Whole blood samples must not be left at a receiving area or in an office or laboratory unless a responsible individual takes custody of the material.
   - Persons processing and/or shipping specimens will maintain training documentation as required per Institutional Biosafety Committee policy.
   - Always use your personal protective equipment (PPE) and observe universal precautions.
   - If the sample cannot be processed immediately it can be refrigerated; verify sample’s stability in the Sponsors Reference Laboratory Manual.

2. Prepare your working surface with absorbent paper.

3. The study personnel will identify the whole blood tube with the subject number and/or initials; the date, the name of the protocol and the collection time (once it is collected). Also, the laboratory requisition will be completed by the study personnel.

4. The whole blood tube will be handled in a transport bag with the biohazard symbol.

5. Once the phlebotomy is performed, the study personnel will deliver it to the laboratory (refer to “Blood Collection and Delivery” and “Transportation of Biological Specimens” SOP’s).
6. The laboratory personnel will verify that the information in the label and the requisition is complete.

7. If the reference laboratory does not request slides, continue following the packing and shipping instructions specific for the protocol.

8. If the reference laboratory requests slides:
   a. Write the participants identification number on the frosted end of two hematology slides using a pencil.
   b. After mixing gently the hematology tube (EDTA), insert the Diff-Safe dispenser into the rubber stopper.
   c. Turn the tube upside down and press the Diff-Safe dispenser against the slide, 0.5 cm from the frosted end.
   d. Discontinue pressure the instant the drop of blood appears.
   e. Holding the second slide at a 30° angle, pull the slide towards the drop of blood until contact is made.
   f. Allow the drop to draw completely across the edge of the slide.
   g. Gently push the second slide forward; do not apply excessive weight, just the weight of the slide; repeat the process for the second slide.
   h. Allow the slides to air dry in a flat surface.
   i. Once the slides are dry, pack them in the plastic mailer provided by the reference laboratory. Follow the packing and shipping instructions.

9. Remove and discard the Diff-Safe dispenser before packing the CBC tube, the absorbent paper and any other contaminated material(s) in the biohazard waste container.

10. Decontaminate the working surface with germicidal wipes.

11. Discard the wipes in the biohazard waste container.

12. Sign the maintenance records for “Laboratory Daily Maintenance”.

V. Exposure Control:

1. In the event of a spill of biological samples please refer to “Biological Spills” SOP, and/or call 787-766-3062 (OSLI-Office for Safety in Research Laboratories), and/or 787-758-2525, ext. 1054/1707 (CASSO-Occupational, Health, Safety and Environment Office).

2. If a potential exposure occurs, notify the Occupational Health Clinic, 787-758-2525, ext. 2913.