HEALTH HOLDING

HAFER ALBATIN HEALTH CLUSTER MATERNITY AND CHILDREN HOSPITAL

Department:	Laboratory and Blood Bank (Haematology)		
Document:	Internal Policy and Procedure		
Title:	Receipt of Specimen ,Evaluation and Processing of Haematology Specimens		
Applies To:	All Laboratory Staff		
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1. PURPOSE:

1.1 To provide instruction for receiving of specimen.
1.2 For the accuracy, reproducibility and reliability in the analysis of haematological specimens, the following guidelines must be observed
1.3 To provide instruction on, handling and processing of specimen to obtain reliable and accurate results.

2. DEFINITONS:

N/A

3. POLICY:

3.1 The key to accurate and precise results depends on the specimen properly collected and labelled.

4. PROCEDURE:

4.1 RECEIPT OF SPECIMEN

4.1.1 When receiving the specimen, make sure that they are in the proper container with the correct amount of blood required especially for coagulation studies.
- 4.1.1.1 **Complete Blood Count (CBC)** – EDTA tube with 2.5 or 4.5ml of blood
- 4.1.1.2 **Coagulation Studies** in the tube containing 0.25 ml trisodium citrate and blood filled to the mark. (Concentration 1:9).
- 4.1.1.3 **Osmotic Fragility Test** – heparinized blood.

4.1.2 Check whether the record number of the patient on the specimen bottle tallies with the request forms.
4.1.3 Request form must be filled completely and clearly with hospital number, name of patient, ward, age, sex, clinical diagnosis and others.
4.1.4 Write the time when the specimen was received.
4.1.5 Write the hematology number on the requisition forms and on the specimen bottle
4.1.6 Inform the ward for any clotted or hemolyzed samples
4.1.7 List the number of samples for ESR, Reticulocyte Count, RBC Morphology, Coagulation studies etc. for the convenience of the one in charge of the said tests.
4.1.8 Distribute the samples with the request forms to the appropriate area here it will be processed.
4.1.9 The technician after processing the requested tests should sign on the test done
4.1.10 Record all the results and make sure all the tests requested are done and complete before giving to the doctor for signature.
4.1.11 Write the time when the result was released.

4.2 EVALUATION OF HEMATOLOGY SPECIMEN

4.2.1 EDTA Specimens: must contain adequate blood to **EDTA** ratio. False reading of hematology parameters sometimes obtained if this ratio is not observed. **REJECT** any specimen that is

less than 2 ml of blood / EDTA. (Small quantities may be attempt but release of such results should be carefully evaluated by the Hematologist/ Consultant

4.2.2 Sodium Citrate Specimens: Proper ratio of sodium citrate is an **ABSOLUTE MUST** and any specimen must be rejected that is either below or above the mark on all specimens submitted for coagulation test and FDP.

4.2.3 Any specimen that contains hemolysis or clots of any description is to be rejected. Ward or Department from which the specimen originated is to be notified at once that specimen is unacceptable and new one drawn if test is to be performed.

4.3 **SAMPLE HANDLING**

4.3.1 Samples should be examined for clots and fibrin strands

4.3.2 Check whether the tube is overfilled or under filled with blood as this would alter the blood citrate ratio. Request for a new sample.

4.3.3 Centrifuge the blood for coagulation studies for 10 minutes at 3000 rpm. Except for Protein S centrifuge for another 10 minutes to obtain a platelet free plasma.

4.3.4 Check for hemolysis and lipemia

4.3.5 For factor assay & plat function, the word or clinic must be contact the hematology section before sample collection.
If factor assay to be done at later time, it must be frozen immediately at -70C in a stopper plastic tube, properly labelled.

4.3.6 For Platelet Function informed hematology section before sample collection to prepare the machine and reagents.

4.3.7 For special test samples such as Protein S, Anti Thrombin III, von Willebrand factor etc, to be done at a later time. It must be frozen immediately at -70 C in a stoppered plastic tube properly labelled.
NOTE: Do not use glass tube as it may result in activation of Factor VII mediated by activation of factor.

4.3.8 When ready for use, the specimen must be quickly thawed at 37° C for 5 – 10 minutes Used immediately.

4.4 **PROCEDURES:**

4.4.1 A procedure manual containing all pertinent detail for each test is available in the section.

4.4.2 Each assay must include a control both normal and abnormal if possible

4.4.2.1 lyophilized commercial controls with assayed values

4.4.2.2 Records must be kept of all control values and run on a daily basis to detect trends

4.4.2.3 Out of control results, action taken to correct must be noted.

4.5 **RESULTS:**

4.5.1 All results must be recorded and approved

4.5.2 Any abnormal results in the "panic" range inform either ward or clinic and evidence of phoning the report must be noted.

4.5.3 Results must be reviewed and signed by the doctor in charge of the section

4.5.4 Released the signed reports to its appropriate ward and clinic

5. MATERIAL AND EQUIPMENT:

5.1 REAGENTS

5.1.1 All reagents must be clearly labelled with name, lot number and expiration date.

5.1.2 Reagents must be made fresh everyday unless specifically stated by a manufacturer to be stable for a longer period of time. The date of opening and reconstitution must be indicated on each vial.

5.1.3 Bring all reagents at room temperature prior to use

5.1.4 Expired reagents can be used provided that the control is within acceptable ranges

5.1.5 New lot number of reagents and controls must be checked against on use lot number to see if they are the same as before. If not proper QC, ranges and calibration must be done before use.

5.1.6 Distilled water must be used in all procedures.

5.2 EQUIPMENT

5.2.1 All glassware and pipettes used in coagulation are disposable, and most are plastics, eliminating problems of washing and scratching,

5.2.2 Each instrument has its own procedure for maintenance and quality control and must be referred to specifically.

5.2.3 All mechanical devices will be accordingly checked out for daily /weekly / monthly records maintained.

5.2.4 Problems arising with equipment must be noted in the specific manual and steps taken to solve the problem must be noted on daily basis and must be documented

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5.2.6 Refer to instrument manual for procedure and troubleshooting in case problem raised

5.2.7 Maintenance like cleaning of the centrifuges must be done on daily weekly, monthly basis and must be documented.

6. RESPONSIBILITIES:

6.1 All Haematology Staff

7. APPENDICES:

N/A

8. REFERENCES:

8.1 Simplate Literature- Organon Technical

8.2 Medical Laboratory Hematology, 2nd Edition, 1993, Roger Hall, R. Malia pp. 577-578

9. APPROVALS:

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