



HEALTH HOLDING

HAFER ALBATIN HEALTH
CLUSTER
MATERNITY AND
CHILDREN HOSPITAL

Department:	Laboratory and Blood Bank (Haematology)		
Document:	Internal Policy and Procedure		
Title:	Prothrombin Time Manual		
Applies To:	All Laboratory Staff		
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1. PURPOSE:

- 1.1 Prothrombin time (PT) measure the clotting time of plasma in the presence of tissue extract (thromboplastin) and is an indicator to The overall efficiency of the extrinsic clotting system (factor V, VII and X).

2. DEFINITONS:

N/A

3. POLICY:

- 3.1 Measurement of prothrombin time as an indicator to overall efficiency of the extrinsic, clotting system.

4. PROCEDURE:

- 4.1 Check temperature of water –bath and level of water
- 4.2 Centrifuge patient sample for 12min at 3000 rpm.
- 4.3 Follow manufacturer's guides for reconstitution of thromboplastin and control.
- 4.4 Warm up adequate amount of thromboplastin to perform control and tests in duplicate for 5 min.
- 4.5 To two glass tube add 0.1 ml of normal control and warm in the water –bath for 3 min
- 4.6 Following this incubation, add 0.2 ml of warmed thromboplastin and simultaneously start the stopwatch
- 4.7 Mix and gently title the tube back and forth until a gel –like clot forms. Stop the timer and record the time in seconds.
- 4.8 Repeat the same steps for abnormal control and patient's sample
- 4.9 Record all results in logbook and report average of duplicate times along with the normal control result
- 4.10 For patients on warfarin who require the INR, read end record the INR from the thromboplastin INR conversion table.
- 4.11 Normal Values
 - 4.11.1 11- 16 seconds, INR 0.8 – 1.2.
- 4.12 INTER PRETATION: The causes of prolonged PT
 - 4.12.1 DIC
 - 4.12.2 Liver disease.
 - 4.12.3 Vit.K deficiency.
 - 4.12.4 Administration of anticoagulant drugs
 - 4.12.5 Deficiencies of factor VII, X, V.

5 MATERIALS AND EQUIPMENT:

- 5.1 Normal plasma
- 5.2 Patients plasma
- 5.3 PT reagents

- 5.4 Equipment
- 5.4.1 Water bath 37°C.
 - 5.4.2 Glass tubes
 - 5.4.3 Pipette (0.1 ml and 0.2 ml).
 - 5.4.4 Stopwatch.
 - 5.4.5 Centrifuge.
 - 5.4.6 Thromboplastin
 - 5.4.7 Normal and abnormal control obtained commercially with known values
 - 5.4.8 Patient blood sample collected into (Use freshly collected blood take into 0.11 mol/l trisodium citrate in the Ratio 9 parts blood to 1 part anticoagulants).

6 RESPONSIBILITIES:

- 6.1 The assigned technician.

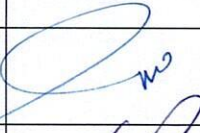
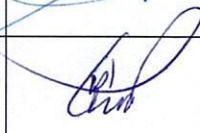
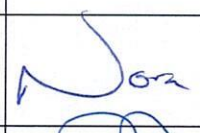

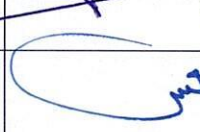
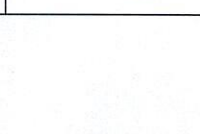
7 APPENDICES:

N/A

8 REFERENCES:

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- 8.2 Oral anticoagulant control F.K Schattauer Verlag GmbH, 1985. 8.2. Colman R.W. Hirsh J, Marder V.J. Salzman E.W. Haemostasis and Thrombosis Basic Principles and Clinical Practices .J.B Lippincott 1994.
- 8.3 A Manual Laboratory & Diagnostic Tests (Lippincott Williams & Wilkins
- 8.4 Medical Encyclopedia (Medlin Plus)
- 8.5 Clinical Laboratory Methods/ John D. Bauer – MD- Mosby
- 8.6 Practical Hematology (Sir John V. Dacie)

9 APPROVALS:

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