



Department:	Laboratory and Blood Bank		
Document:	Internal Policy and Procedure		
Title:	Fibrinogen Test		
Applies To:	All Hematology Staff		
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1. PURPOSE:

- 1.1 Aid in diagnosis of suspected clotting or bleeding disorders caused by fibrinogen abnormalities.

2. DEFINITONS:

N/A

3. POLICY:

- 3.1 The amount of fibrinogen in a blood sample can be estimated by the speed of clotting after the addition of standard amount of thrombin.

4. PROCEDURE:

4.1 Manual method:

- 4.1.1 Bring Fibrinogen reagent to 37°C
- 4.1.2 Pipette 100 uL of SP into a test tube pre-warmed at 37°C
- 4.1.3 Incubate for 1 minute.
- 4.1.4 Add 200 uL of fibrinogen reagent..
- 4.1.5 Immediately start in timer and note time of clot formation in seconds.
- 4.1.6 Perform the test in duplicate and take the average.
- 4.1.7 Run control using the same procedure.
- 4.1.8 Interpolate fibrinogen value from calibration curve.

4.2 Operation procedures:

4.2.1 Loading sample:

- 4.2.1.1 Press ESC to see menu
- 4.2.1.2 Choose loading then ENTER
- 4.2.1.3 Choose sample then press ENTER
- 4.2.1.4 Write the IP for the patient then press ENTER.
- 4.2.1.5 Then put the sample in any position, then press ENER.
- 4.2.1.6 Choose the test by pressing on ENTER, then F10 to save.

4.2.2 Load Reagent:

- 4.2.2.1 Press ESC
- 4.2.2.2 Choose loading from the main menu then press ENTER
- 4.2.2.3 Choose products then ENTER.
- 4.2.2.4 Bar code reagents then press on enter then put the reagents in any position.

4.2.3 Run Controls:

- 4.2.3.1 Press ESC to go to main menu.
- 4.2.3.2 Choose CALIB/CONTROL then press ENTER.
- 4.2.3.3 Choose quality control hen press ENTER.
- 4.2.3.4 To select control press on F1, to run the control press on F10 – THEN ENTER THE PASSWORD FOR QC (CQ)

4.3 Results interpretation:

- 4.3.1 Increased in:
 - 4.3.1.1 Cancer of the stomach, breast, kidney
 - 4.3.1.2 Inflammatory Disorders such as: Pneumonia, Glomerulonephritis
 - 4.3.1.3 Bone Marrow Lesion
- 4.3.2 Decreased in:
 - 4.3.2.1 DIC
 - 4.3.2.2 Fibrinolysis
 - 4.3.2.3 Cancer of prostate, pancreas, lungs
 - 4.3.2.4 Reference Range: 2.0-4.0 g/L
 - 4.3.2.5 Panic Value: < 0.8 g/L >7.0g/L
- 4.3.3 Test Limitation:
 - 4.3.3.1 Hemolyzed, lipemic and clotted SP will affect the results.
 - 4.3.3.2 Degradation products of fibrinogen lead to prolonged coagulation times and therefore diminish recovery of fibrinogen.
 - 4.3.3.3 Therapy with direct thrombin inhibitors (E.g. Hirudin) may contribute to diminished recovery.
 - 4.3.3.4 Lot. No. of reagent in use and the data provided in the enclosed table of values should match.

5. MATERIAL AND EQUIPMENT:

- 5.1 Liquid FIB. Kit 4ml
- 5.2 Automate Coagulometer (STAGO COMPACT)

6. RESPONSIBILITIES:

- 6.1 This policy applies to all Hematology technologists involved in this Hematology test.

7. APPENDICES:

N/A

8. REFERENCES:

- 8.1 Cooper J. Douglas AS. Fibrinogen level as a predictor of mortality in survivors of myocardial infarction. *Fibrinolysis*. 1991; 5: 105-8
- 8.2 Cook NS, Ubben, D. Fibrinogen as a major risk factor in cardiovascular disease. *TiPS*. 1990;
- 8.3 Dempfle CE, Keller A, Kirchner A, Heene DL. The influence of Hirudin on plasma fibrinogen assays. *Thromb Haemost*. 1998; 80: 716-7n.
- 8.4 Wagner C, Dati F. Fibrinogen. In: Thomas L, ed. *Clinical Laboratory Diagnostics*. Frankfurt.

9. APPROVALS:

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