HEALTH HOLDING

HAFER ALBATIN HEALTH CLUSTER MATERNITY AND CHILDREN HOSPITAL

Department:	Laboratory and Blood Bank		
Document:	Internal Policy and Procedure		
Title:	Determination of Platelets in Blood Smear		
Applies To:	All Haematology Staff		
Preparation Date:	January 06, 2025	**Index No:**	LB-IPP-051
Approval Date:	January 20, 2025	**Version :**	2
Effective Date:	February 20, 2025	**Replacement No.:**	LB-IPP-051(1)
Review Date:	February 20, 2028	**No. of Pages:**	02

1. PURPOSE:

1.1 Establish a system and set of responsibilities for work.

2. DEFINITIONS:

N/A

3. POLICY:

3.1 Determination of platelets in blood smear by manual method.

3.2 Examination of a stained blood film provides a rapid estimation of platelet number. Normally there are 8-20 platelets per 100X oil immersion field in a properly prepared blood smear where the RBC's barely touch other.

4. PROCEDURE:

4.1 **Specimen:**

4.1.1 Smear from EDTA anticoagulated whole blood or free-flowing capillary blood.

4.1.1.1 Quality Control: Training and experience in examining peripheral blood films for qualitative evaluation and quantities estimation of platelets are essential. Peripheral blood prepared for quantitative determination of platelets which are already examined by the specialist and results released should be randomly reviewed by the consultant and results of review should be compared to the specialist estimation of platelets.

4.1.2 Steps:

4.1.2.1 Peripheral blood smears are stained with Leishman and Giemsa stain.

4.1.2.2 Blood smears stained in 2 minutes with Leishman stain after 2 minutes dilute it distilled water to 15 minutes wash and dry.

4.1.2.3 At least 10 fields should be carefully examined for platelet estimation using oil immersion lens in an area where RBC's just touch each other.

4.1.2.4 Average number multiplied by a factor of 20,000 to arrive at an approximation of platelet concentration.

4.1.3 Reporting Results:

4.1.3.1 Reference Value: 150,000-400,000/ml or 150-400x10g/L (SI Units).

4.1.4 Procedure Note:

4.1.4.1 It progresses from being thick at the point of origin to being thin with a uniform edge at the termination point.

4.1.4.2 Does not touch the outer borders of the slide or run off the slides or ends of the slides.

4.1.4.3 It is smooth-appearing without waves or gaps.

4.1.4.4 It does not have any steaks, ridges or troughs.

5. MATERIAL AND EQUIPMENT:

5.1 Leishman Stain
5.2 Glass Slides
5.3 A manual cell counter designed for Differential count
5.4 Microscope and oil immersion lens

6. RESPONSIBILITIES:

6.1 The clinical pathologist

7. APPENDICES:

N/A

8. REFERENCES:

8.1 McPherson RA and Pincus MR. Henry's Clinical Diagnosis and Management by Laboratory Methods.
8.2 21st Ed. Philadelphia, Pa: WB Saunders: 2007:461-2
8.3 SweetHaven Publishing Services, Copyright @ 2004 SweetHaven Publishing Services

9. APPROVALS:

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