



HEALTH HOLDING

HAFER ALBATIN HEALTH
CLUSTER
MATERNITY AND
CHILDREN HOSPITAL

Department:	Laboratory and Blood Bank (Haematology)		
Document:	Internal Policy and Procedure		
Title:	Manual Reticulocytic Count		
Applies To:	All Laboratory Staff		
Preparation Date:	January 06, 2025	Index No:	LB-IPP-052
Approval Date:	January 20, 2025	Version :	2
Effective Date:	February 20, 2025	Replacement No.:	LB-IPP-052(1)
Review Date:	February 20, 2028	No. of Pages:	02

1. PURPOSE

- 1.1 Ordered to help determine if bone marrow is responding adequately to the body's need for RBC and to help determine the cause of and classify different types of anemia.

2. DEFINITONS:

- 2.1 Reticulocytes: are juvenile red cells

3. POLICY:

- 3.1 The procedure for counting reticulocytes (juvenile red cells).

4. PROCEDURE:

- 4.1 Specimen Requirement
- 4.1.1 Specimen Type: Venous blood
 - 4.1.2 Venous blood
 - 4.1.3 Tube Type: K-EDTA (Lavender) Tube
 - 4.1.4 K-EDTA (Lavender) Tube
 - 4.1.5 Amount Required: 2 ml
 - 4.1.6 Delivery Arrangement: As soon as possible and should not exceed 1 hour from collection time.
 - 4.1.7 Temperature Restriction: 37°C
 - 4.1.8 Stability: 1 day at RT
 - 4.1.9 Unacceptable SP:
 - 4.1.9.1 Clerical Error
 - 4.1.9.2 Clotted
 - 4.1.9.3 QNS
 - 4.1.10 Time of the test: Anytime
- 4.2 Manual Procedure
- 4.2.1 Mix 3 drops of blood + 3 drops of stain in a test tube
 - 4.2.2 Incubate in water bath at 37°C for 15-20 minutes
 - 4.2.3 Make a smear and scan under the microscope
 - 4.2.4 Count 1000 RBC in consecutive oil immersion fields and record the number of reticulocytes.
 - 4.2.5 Note : For Hemoglobin < 7 ▯ Add 2 volume blood + 1 volume stain
 - 4.2.6 $\text{Reticulocytes (\%)} = \frac{\text{Reticulocytes counted in 1000 RBC}}{1000} \times 100$
 - 4.2.7 $\text{Absolute Retic Count} = \text{Retic (\%)} \div 100 \times \text{RBC count (Cells/mm}^3\text{)}$
 - 4.2.8 Reference Range:
 - 4.2.8.1 Adults: 0.5 – 2 (%)
 - 4.2.8.2 Newborn: 1 – 6 (%)

5. MATERIALS AND EQUIPMENT:

5.1 Methylene Blue N : (Ready to use)

6. RESPONSIBILITIES:

6.1 The assigned technician is responsible for the smear preparation.

6.2 The hematologist is responsible for examining the smear and reporting the result.

7. APPENDICES:

N/A

8. REFERENCES:

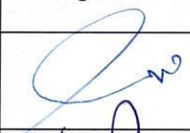
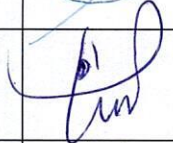




8.1 A Manual Laboratory & Diagnostic Tests (Lippincott Williams & Wilkins)

8.2 Clinical Laboratory Methods/ John D. Bauer – MD- Mosby

8.3 Medical Encyclopedia (Medlin Plus)

8.4 Practical Hematology (Sir John V. Daci)

9. APPROVALS:

	Name	Title	Signature	Date
Prepared by:	Dr. Fatma Hassan Ahmed	Clinical Pathologist		January 06, 2025
Reviewed by:	Dr. Kawther M. Abdou	Consultant & Lab. Medical Director		January 08, 2025
Reviewed by:	Ms. Noora Melfi Alanizi	Laboratory & Blood Bank Director		January 09, 2025
Reviewed by:	Mr. Abdulelah Ayed Al Mutairi	QM&PS Director		January 12, 2025
Reviewed by:	Dr. Tamer Mohamed Naguib	Medical Director		January 12, 2025
Approved by:	Mr. Fahad Hazam Alshammari	Hospital Director		January 20, 2025