

<b>Department:</b>	Laboratory and Blood Bank ( Haematology)		
<b>Document:</b>	Internal Policy and Procedure		
<b>Title:</b>	Manual Reticulocytic Count		
<b>Applies To:</b>	All Laboratory Staff		
<b>Preparation Date:</b>	January 06, 2025	<b>Index No:</b>	LB-IPP-052
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## 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 Reticulocytes (%) = Reticulocytes counted in 1000 RBC ÷ 10.
- 4.2.7 Absolute Retic Count = Retic (%) ÷ 100 x RBC count (Cells/mm<sup>3</sup>)
- 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.

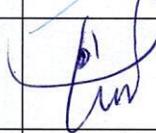
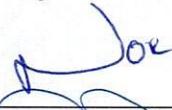
## 7. APPENDICES:

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:

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