



HEALTH HOLDING

HAFER ALBATIN HEALTH  
CLUSTER  
MATERNITY AND  
CHILDREN HOSPITAL

<b>Department:</b>	Laboratory and Blood Bank		
<b>Document:</b>	Internal Policy and Procedure		
<b>Title:</b>	Preparation of Red Cell Suspension		
<b>Applies To:</b>	All Blood Bank Staff		
<b>Preparation Date:</b>	January 06, 2025	<b>Index No:</b>	LB-IPP-194
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## 1. PURPOSE:

- 1.1 To prepare RBC suspension of appropriate concentration for a given test.

## 2. DEFINITONS:

N/A

## 3. POLICY:

- 3.1 Upon need, RBC suspension should be prepared for blood bank serological test.

## 4. PROCEDURE:

### 4.1 Specimen used:

- 4.1.1 Clotted and anticoagulated blood samples of donors.  
4.1.2 Clotted blood sample of patients.

### 4.2 Quality control:

- 4.2.1 Test the pooled cells prepared using the antisera (anti-A, B, AB and D) in use.

### 4.3 Procedure:

- 4.3.1 Label tubes with A.B. and O groups.  
4.3.2 Place 1 drop of red cells each from 3 of "A group" sample tubes or segment into the "A" labelled tube.  
4.3.3 Place 1 drop of red cells each from 3 of "B group" sample tubes or segment into the "B" labelled tube.  
4.3.4 Place 1 drop of red cells each from 3 of "O group" sample tubes or segment into the "O" labelled tube.  
4.3.5 Fill the tube  $\frac{3}{4}$  full with 0.9% saline to resuspend the cells.  
4.3.6 Wash the suspension 3 times.  
4.3.7 Take one drop (50 ul) of the RBC sediment after washing and resuspend in 1 ml saline giving 5% suspension.

## 5. MATERIALS AND EQUIPMENT:

### 5.1 Forms and Records:

N/A

### 5.2 Equipment and reagents:

- 5.2.1 Calibrated centrifuge  
5.2.2 0.9% saline  
5.2.3 Anticoagulated blood donor unit segment or specimen of patient  
5.2.4 Pasteur pipettes

## 6. RESPONSIBILITIES:

- 6.1 It is the responsibility of blood bank staff in the pre-transfusion area to prepare the appropriate red cell suspension upon need.


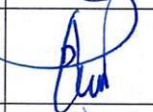




## 7. APPENDICES:

N/A

## 8. REFERENCES:

- 8.1 AABB Technical manual, 18th edition, 2014.

## 9. APPROVALS:

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