



HEALTH HOLDING

HAFER ALBATIN HEALTH
CLUSTER
MATERNITY AND
CHILDREN HOSPITAL

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|--------------------------|------------------------------------|-------------------------|---------------|
| Department: | Laboratory and Blood Bank | | |
| Document: | Internal Policy and Procedure | | |
| Title: | Preparation of Red Cell Suspension | | |
| Applies To: | All Blood Bank Staff | | |
| Preparation Date: | January 06, 2025 | Index No: | LB-IPP-194 |
| Approval Date: | January 20, 2025 | Version: | 2 |
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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 μ l) 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.

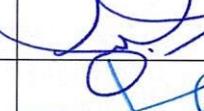
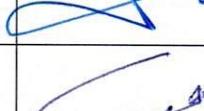
7. APPENDICES:

N/A

8. REFERENCES:

8.1 AABB Technical manual, 18th edition, 2014.

9. APPROVALS:

| | Name | Title | Signature | Date |
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