Standard Operating Procedure (SOP)

Blood Unit Requisition and Cross-Matching Protocols

This SOP details the **blood unit requisition and cross-matching protocols**, covering the procedures for requesting blood units, verifying patient compatibility, performing accurate cross-matching tests, and ensuring safe transfusion practices. It aims to minimize transfusion reactions and enhance patient safety through standardized and efficient blood management processes.

1. Purpose

To outline standardized procedures for blood unit requisition and cross-matching to ensure timely, safe, and compatible transfusion for patients.

2. Scope

This protocol applies to all healthcare personnel involved in blood transfusion services, including physicians, nurses, laboratory technicians, and blood bank staff.

3. Responsibilities

- **Physician:** Initiate the blood requisition and provide accurate patient details.
- **Nurse:** Collect blood samples and properly label them.
- **Lab Technician:** Conduct blood grouping, compatibility testing, and cross-matching.
- **Blood Bank Staff:** Issue blood units only after compatibility is confirmed.

4. Procedure

4.1 Blood Unit Requisition

1. Physician completes a blood requisition form, ensuring the following information is included:
    - Patient's full name, hospital number, age, sex
    - Diagnosis and indication for transfusion
    - Blood component required (e.g., whole blood, RBCs, plasma)
    - Quantity and urgency (routine/emergency)
    - Date and time of request
    - Physician's name and signature
2. Form is sent to the blood bank with a properly labeled patient blood sample (minimum 5 ml in an EDTA tube).

4.2 Sample Collection and Labelling

1. Verify patient identity using two identifiers (e.g., name and hospital number).
2. Collect a fresh venous blood sample observing aseptic precautions.
3. Label the sample at the bedside immediately after collection with:
    - Patient's full name, hospital number, date, and time of collection
    - Initials of the person collecting the sample
4. Deliver to blood bank promptly.

4.3 Blood Grouping and Compatibility Testing

1. Verify sample and requisition form for consistency.
2. Determine ABO and Rh blood group of the patient and donor units.
3. Screen for irregular antibodies as per local policy.
4. Perform cross-match:
    - Immediate-spin and/or antiglobulin (Coombs) cross-match as appropriate
5. Document all test results and interpretations.

4.4 Issuing Blood Units

1. Issue only compatible, cross-matched blood units.
2. Record details in blood issue register and transfusion record.
3. Verify unit label with patient and requisition details before release.

4.5 Pre-Transfusion Check & Administration

1. Two qualified staff check identity of recipient, blood unit label, and cross-match label at patient's bedside.
2. Monitor patient according to local guidelines before, during, and after transfusion.
3. Report and document any adverse reactions immediately as per hospital policy.

5. Documentation

- Maintain records of requisition forms, cross-match results, and blood issue logs for at least the minimum time prescribed by local regulations.

6. Quality Assurance and Audit

- Regular training and competency assessment of staff involved in blood transfusion processes.
- Periodic audit of requisition, cross-matching, and transfusion records to ensure compliance and identify areas for improvement.

7. References

- National/International blood transfusion guidelines (e.g., WHO, AABB, NHS).
- Hospital blood transfusion policy.

8. Revision History

Version	Date	Description of Change	Approved by
1.0	2024-06-01	Initial SOP release	Blood Bank Director