

# Standard Operating Procedure (SOP)

## Blood Product Selection, Verification, and Preparation

This SOP details the **blood product selection, verification, and preparation** process, ensuring the correct and safe handling of blood products. It covers criteria for selecting appropriate blood components based on patient needs, verification procedures to match blood products with patient identification and compatibility requirements, and standardized preparation techniques to maintain product integrity and safety before transfusion. The aim is to minimize transfusion errors and optimize patient outcomes through strict adherence to protocols.

### 1. Purpose

To outline the standardized process for selecting, verifying, and preparing blood products for transfusion, ensuring patient safety and product integrity.

### 2. Scope

This SOP applies to all healthcare staff involved in the transfusion process, including physicians, nurses, and laboratory personnel.

### 3. Responsibilities

- **Physicians:** Prescribe appropriate blood products based on clinical indications.
- **Nurses:** Participate in verification and preparation; administer transfusions.
- **Laboratory Staff:** Select and issue compatible blood components.

### 4. Blood Product Selection Criteria

Product	Indications	Special Considerations
Packed Red Blood Cells (PRBCs)	Symptomatic anemia, acute blood loss	Match ABO/Rh; consider leukoreduction, irradiation, phenotype
Platelets	Thrombocytopenia, platelet dysfunction	ABO compatibility preferred; Rh match in females of childbearing age
Fresh Frozen Plasma (FFP)	Coagulopathy, massive transfusion, liver disease	Match ABO; thaw immediately before use
Cryoprecipitate	Fibrinogen deficiency, factor deficiencies	ABO compatibility preferred

### 5. Verification Procedure

1. **Patient Identification:**
  - Check patient's full name, date of birth, and unique hospital number using two identifiers.
  - Compare with medical order and wristband at the bedside.
2. **Blood Product Verification:**
  - Check the product label for patient name and identification number.
  - Ensure product ABO and Rh compatibility with patient records.
  - Confirm product expiry date, appearance, and integrity of the bag.
3. **Dual Verification:**
  - Two qualified staff must independently verify all above details at the bedside.

### 6. Preparation Procedure

1. Gather all necessary equipment: blood administration set, infusion pump (if required), appropriate IV access.
2. Inspect blood product visually for clots, discoloration, or leaks.

3. Maintain aseptic technique throughout preparation.
4. Spike blood unit with administration set; prime tubing as per manufacturer's instructions.
5. Begin transfusion within 30 minutes of removal from blood bank (per local policy).

## **7. Documentation**

- Record product details: type, unit number, expiry date, volume transfused.
- Note time of transfusion start and completion.
- Document names of staff performing verification.
- Record any adverse events and actions taken.

## **8. References**

- Hospital Policy on Blood Transfusion
- Guidelines for the Administration of Blood Products (local/national standard)