Inodaya Hospitals	**INODAYA Hospitals - Kakinada**		**Documentation code: INH/COP .Doc.No:13**
	Policy on rational use of Blood and Blood Product		Prepared Date: 05/09/2023
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1.0 Purpose: To give guide lines for rational use of Blood and Blood Product

2.0 Scope: Hospital wide

3.0 Responsibility: Medical and Nursing staff

4.0 Policies and Procedure:

4.1 Only Physicians are allowed to order blood / blood components for transfusion. The ordering physician signature must appear on the blood requisition form. The form must be filled out in its entirety – including the diagnosis and date of requirement. It must be stated whether it is urgent or routine

4.2 Patient samples may be drawn by laboratory or nursing personnel. The tube is labeled. Blood samples for determination of blood type, antibody screen, and cross matching or for investigation of a transfusion reaction require absolute identification of the patient at the patient's bedside

4.2.1 In order to prevent transfusion reactions that may result from improper identification or the sample or patient, the following procedure must be strictly adhered to:

4.2.1.1 The patients full name, IP / OP number as it appears on the tube label must be verified at the patient's bedside at the time the blood sample is drawn. Evidence that suggests that this was not done will result in rejection of the sample.

4.2.1.2 Identification of in-patients is to be verified only by the demographic data as shown on their medical records

5. BLOOD COMPENENTS USED IN OUR UNIT:

Blood components used in the hospital are

- Packed RBC
- FFP (Fresh frozen Plasma)
- SDP (Single Donor Platelet)

6. CONDITIONS FOR THE USAGE, STORAGE AND USAGE OF BLOOD AND BLOOD COMPONENTS:

Components	Description	Indications	Dosage and Effect	Special considerations	Not indicated for	Shelf life	Storage conditions	Start Infusion	Complete Infusion	Precautions
Packed RBC	200-250 ml of RBC's from 450ml of whole blood	1. Acute and chronic symptomatic anaemia. 2. Use the crystalloid or colloid solutions in acute blood loss	1 Unit RBC ↑ Hct by 3% ↑ Hb by 1gm % (approx)	Must by ABO & Rh compatible and X-match compatible	1. Deficiency anemias treatable pharmacologically 2. Coagulation factor deficiencies	35 days	2 degrees C - 6 degreesC	Within 30 mins or removal from refridgerator	Within 4 hrs or less if ambient temperature is high	If blood is received and not transfused immediately store at 4 degrees c to 6 degrees

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Fresh Frozen Plasma	200-250 ml Plasma prepared within 6 hrs of whole blood collection preserving all clotting factors including labile factors (like Factor V & VIII)	1. Replacement of multiple coagulation factor deficiency 2. Liver disease 3. Anticoagulant over dose 4. Disseminated Intravascular coagulation (DIL) 5. Thrombotic thrombocytopenic purpurea. 6. Deletion of coagulation factors in patients	10-15 ml/kg ↑ Factor levels by 20-30% ↑ Albumin level	ABO compatible No Rh compatibility X-match required	Conditions responsive to volume replacement	Frozen - 1 year	-30 degrees C or lower use preferably within 6 hrs after thawing at 37 degrees C	Within 30 mts of thwing and if felayed store at 4 degrees C to 6 degrees C	Within 20 mts	Do not warm the blood Do not store platelet in refrigerator Do not transfuse with any medicine

		receiving large volume transfusion								
Single donor platelet	>0.5 x 10" platelt from 450 ml of blood in 45-65 ml	1. Bleeding from thrombocytopenia. 2. Functional defect of platelts	4-6 units increase paltelet count by 5,000-10,000/ micro L per unit	Preferably group compatible, however not group specific platelts can be given	1. Plasma coagulation factor deficit 2. TTP, HUS, ITP except in life saving situations	5 days (special bags)	20 degrees to 24 degess with continous agitation	Immediately (do not store plaetelet after issuing fron blood bank)	Within 20 mts	Watch the patient clsoely for first 20 mts for transfusion reaction
Whole blood	450 ml or 350 ml of whole blood in anticoagulant (CPDA-1)	1. Exhange transfusion 2. Acute blood loss more than 30% of total blood volume	1 unit whole blood ↑ Hct by 3% ↑ Hb by 1gm % (approx)	Must by ABO & Rh compatible and X-match compatible	1. Deficiency anemias treatable pharmacologically 2. Coagulation factor deficiencies	35 days	2 degrees C - 6 degreesC	Within 30 mins or removal from refridgerator	Within 4 hrs or less if ambient temperature is high	Record the transfusion details in patients record

7.0 TRANSFUSION PROCEDURES

The responsibility for transfusion of blood products rests upon the treating physician. In accordance with the regulations of the Ministry of Health, two persons are responsible for ensuring the proper identification of the blood component and the patient. These may be a physician and a nurse, two physicians.

Verification of the unit label, the transfusion form and the patient identification is of paramount importance in preventing serious transfusion reactions and must be performed without exception.

a) The patient name and identification number as displayed on the case file must be compared with the information on the blood bag and the transfusion form.

b) In the comparison process, special attention must also be paid to the unit number and blood type as contained on the blood bag and the transfusion form. If there are any discrepancies, the unit should not be transfused and returned.

c) Informed consent is obtained from the recipient for the said transfusion.

d) The information on the blood transfusion form must be completed. The date, and start-time for the transfusion should be entered. Signatures are required from those verifying the identification of the patient and blood unit. The label supplied by the blood bank for the blood bag after

verification is affixed to the patient's case sheet and a note is made in the case sheet. During the transfusion, the patient should be observed for signs & symptoms of a transfusion reaction.

e) At the conclusion of the transfusion, the date and time should be entered and any information pertaining to an adverse reaction should be noted. The blood transfusion reaction form supplied with the blood unit is duly filled whether there is a reaction or not after completion of the transfusion.

f) All blood products should be administered through a blood filter except for IV gamma globulin and albumin solutions. Transfusions should begin no longer than 30 minutes after the product has arrived at the ward.

g) The duration of the transfusion should not exceed four hours. The only permissible additive to the blood bag is normal saline (0.9%)

h) Premedication prior to whole blood or packed cell transfusion should be discouraged as it may tend to obscure a significant transfusion reaction.

i) Generally Transfusion of blood during night is avoided as the number of consultant is less, however in case of emergencies blood is transfused under supervision.

j) Blood is stored for use in temperature monitored refrigerators. Blood components that are not stored in temperature monitored refrigerators for more than 30mins are considered unfit for transfusion

k) The blood products that have not been utilized for the patient/ and those blood products that have not been transfused to the patient within the specified time period are discarded according to the discard protocols envisaged in the biomedical waste segregation policies

i) Blood that meets the discard criteria as envisaged above are sent to the Hospital Laboratory for safe disposal of the blood products

6.0 QUALITY METRICS:

a) Turnaround time for issue of Blood and blood componants

b) Percentage usage of Blood & Blood components

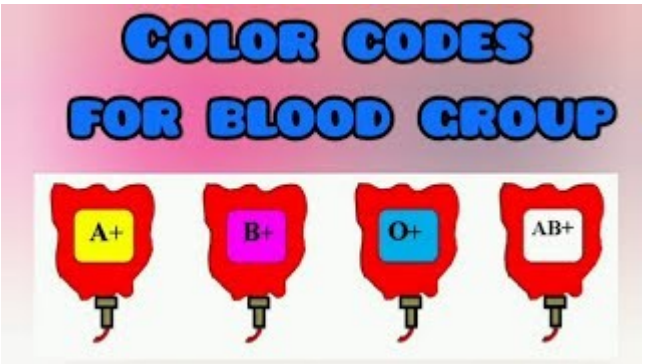
c) Percentage of blood transfusion reactions

8.0 REFERENCE FORMS

a) Blood & Blood components – transfusion record form

b) Blood & Blood components usage form

Patient type	Donor PRBC	Donor FFP	Donor PC
O Positive	O	O,B,A,AB	O,B,A,AB
A Positive	A,O	A,AB	A,AB,O,B
B Positive	B,O	B,AB	B,AB,O,A
AB Positive	AB,B,A,O	AB	AB,B,A,O
RhD Positive	RhD Positive RhD Negative	-	-
RhD Negative	RhD Negative	-	-



Document Revision History

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