Sutter Health
Sutter Roseville Medical Center

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Owner:	*Nadera Poirier: Supervisor, Laboratory Analytic*
Policy Area:	*Lab - Transfusion Service*
References:	
Applicability:	*Sutter Roseville Medical Center*

Selecting Components for Routine Transfusion (Adults and Pediatrics)

PURPOSE

To provide instruction for the safe and accurate selection of plasma compatible blood products for the routine transfusion of adults (≥18) and pediatrics (≥4 months and ≤17).

POLICY

- See table below for pre-transfusion testing requirements based on product requested:

PRODUCT	REQUIREMENT
RBC	1. ABORh performed on current TS/XM accession 2. Second ABORh via previous history at SRMC, history with Sutter affiliate (ARC), or confirmation sample (ABORHK)
Plasma	1. ABORh performed on current admission a. Exception: Every 3 months for OP Infusion Center (OP IVC) patients 2. Second ABORh via previous history at SRMC, history with Sutter affiliate (ARC), or confirmation sample (ABORHK)
Platelets Cryoprecipitate	1. ABORh performed at SRMC on current MRN at any time 2. Second ABORh via previous history at SRMC, history with Sutter affiliate (ARC), or confirmation sample (ABORHK)

- Historical ABORh at SRMC is notated as a non-parenthetical type in Sunquest (SQ). Historical ABORh at a Sutter affiliate or on an alternate RV MRN is notated as a parenthetical type in SQ.
  - To view additional accessions not visible in *Blood Order Processing* (BOP), go to *Information* tab in BOP order, select *History* tab on the left, then highlight the bubble to the left of *Purged Specimen* and highlight the accession desired to view types and/or confirmations
- Special attribute requirements will be applied in conjunction with the following tables for product selection.
  - For patients with special platelet requirements (HLA matched, crossmatched, etc.), attribute need will supersede plasma compatibility
- For further considerations based on patient current or historically demonstrable antibodies, refer to SOP *Policy Defining Clinically Significant Antibodies*.

- Red blood cells that are short dated may be given to any ABORh compatible patient.
- ***Plasma incompatible platelet transfusions*** are not to exceed 2 units in a rolling 24-hour period without approval from pathologist.
    - Upon receipt of a new TPLT order, access BOP to see if the patient has had previous platelet orders. If platelets have been previously ordered in BOP proceed to *Blood Bank Inquiry* and change *How many days?* to 5. Select the TPLT order followed by *Show Units*. Select the unit you wish to review followed by U*nit Detail*. Review the platelet ABO and time of issue.
        - In regards to transfusion, a double-bag of platelets is considered 1 unit
    - If 2 units of plasma incompatible platelets have been issued in a rolling 24-hour period prior to receipt of new TPLT order, assign plasma compatible product
        - If no plasma compatible products can be obtained prior to urgent need for transfusion, consult pathologist and document approval for additional plasma incompatible platelet as a **BBC** in the accession
    - During Massive Transfusion Protocol, platelet ABO will not be taken into account when selecting products
- Platelet selection should be made based upon shortest dated unit in stock first (first in-first out), with plasma compatibility being the second consideration unless two plasma incompatible products have been given in the last rolling 24-hour period.
- If a hemolytic transfusion reaction is noted as a result of a plasma incompatible platelet, provide plasma compatible platelets for 48 hours, after which the patient can resume receiving plasma incompatible platelets.
- In the event that all required pre-transfusion testing and discrepancies are not able to be completed and resolved prior to need for transfusion, emergency release and/or uncrossmatched products will be provided. Refer to SOP *Emergency Release, Uncrossmatched, and Massive Transfusion Protocol (MTP) for Adults and Neonates*.

PRODUCT SELECTION

ABO Selection

ABO selection alternatives are listed in order of preference for selection based on level of compatibility.

COMPONENT	RECIPIENT ABO	ALTERNATIVE(S)	COMMENTS
Red Blood Cells	O	O	Must be compatible with recipient plasma.
	A	A, O	
	B	B, O	
	AB	AB, A, B, O	
Plasma	O	O, A, B, AB	Rh type not a consideration.
	A	A, AB	
	B	B, AB	
	AB	NONE	
Platelets	O	O, A, B, AB	ABO groups in parenthesis are choices with incompatible plasma, listed in least incompatible order. Pediatric and BMT patients should receive ABO compatible products only.
	A	A, AB, (B), (O)	
	B	B, AB, (A), (O)	
	AB	AB, (A), (B), (O)	
Cryoprecipitate	O, A, B, AB	O, A, B, AB	Plasma compatible preferred, when available.

Rh Selection

See *Rh Switch Policy* section below for additional considerations.

COMPONENT	RECIPIENT Rh	ALTERNATIVE(S)	COMMENTS
Red Blood Cells	Positive	Negative	Must be compatible with recipient plasma.
	Negative	None*	
Platelets	Positive	Rh type not a consideration.	**Female ≤ 50 years old will be given Rh negative when possible.
	Negative	Rh type not a consideration**	
Plasma	Rh type not a consideration.		
Cryoprecipitate	Rh type not a consideration.		

RECIPIENT IS *RHDU* AND:	SELECT PRODUCT Rh AS IF RECIPIENT IS Rh:
Genotype has not been performed	Negative*
Molecular genotype class 1-3	Positive
All other classes of molecular genotype	Negative*

Rh Switch Policy

- As part of standard policy, Rh positive products may be routinely substituted with Rh negative products for patients who are *male* or *female ≥51 years old* **AND** Rh negative or RHDU with unknown or molecular genotype *other than class 1-3* in the following situations:
  - Emergency release
  - Massive Transfusion Protocol
  - Routine transfusion **ONLY** in instances of inventory shortage from blood supplier ***or*** patient is actively bleeding and creates a prohibitive use of Rh negative products (use of >4 Rh negative products in 8 hour period)
    - Consult with blood supplier regarding ability to fulfill Rh negative product needs to evaluate need for switch, notify clinical staff at time of switch and document as a **BBC**
- For **females ≤50 years old** who are Rh negative or RHDU with unknown or molecular genotype *other than class 1-3*: If Rh positive red cells or platelets must be substituted for Rh negative due to lack of inventory, attending clinician must be notified in order to determine if Rhogam administration is warranted. Notification to clinician is to be documented as a **BBC**.
- QA overrides will be generated any time the system cannot rectify the patient's Rh interpretation with the Rh type of the blood product. Perform overrides using appropriate ETC for given situation.

- Patients who have received Rh positive products per Rh switch policy must be switched back to Rh negative products as soon as one or more of the following criteria have been met:
  - Patient is no longer actively bleeding/using multiple products a day
  - Blood supplier is no longer experiencing a shortage and can stock to working levels
  - 3 days after administration of first Rh positive RBC.
    - If more than 3 days have passed and shortage or alternate reason for Rh switch still exists and is unable to be overcome, consult pathologist.

RELATED DOCUMENTS

Policy Defining Clinically Significant Antibodies

Emergency Release, Uncrossmatched, and Massive Transfusion Protocol (MTP) for Adults and Neonates

All revision dates:

Attachments

No Attachments