



- (a) All STAT orders for blood products and testing should be completed within 40 minutes of specimen receipt. Routine orders for crossmatch should be completed within four hours. BTS staff notify the nursing unit when blood products requested STAT are available. If there is an unusual delay in the availability of a blood product, BTS staff notify the BTS Medical Director and the nursing unit.
- (3) Section 3: Use of Blood and Blood Components
  - (a) Red Blood Cell Products
    - (i) AS-1 or AS-3 Red Blood Cells (Adenine-Saline added), Leukocyte-reduced (pre-storage) or CPD Red Blood Cells are routinely used for all RBC orders.
    - (ii) IBM washed RBC are available only by special order with advanced notice.  
**NOTE:** Orders for washed cells must be verified and approved by the BTS Medical Director.
    - (iii) Packed red blood cell recipients shall receive ABO group-compatible Red Blood Cells.
    - (iv) Rh-negative recipients should receive Rh-negative Red Blood Cells unless inventory levels dictate the use of Rh-positive Red Blood Cells for male recipients and women over child-bearing age (50).
    - (v) Rh-positive recipients may receive Rh-positive or Rh-negative Red Blood Cells.
  - (b) Plasma Products
    - (i) Fresh Frozen Plasma, Plasma Frozen with 24 hours of collection, and Plasma Cryoprecipitate Reduced are routinely used for FFP orders.
    - (ii) Plasma recipients shall receive ABO group-compatible plasma.
    - (iii) A blood type (ABO/RH) must be performed for administration of ABO type-specific plasma.
    - (iv) If no specimen is available for a blood type, use type AB plasma.
    - (v) Use type AB plasma for patients less than six months old.
    - (vi) Rh type need not be considered when transfusing plasma.
    - (vii) Thaw immediately prior to transfusion using an overwrap in a 30-37°C circulating water bath with frequent agitation.
    - (viii) Use thawed plasma within five days.
    - (ix) When plasma is thawed a new label is generated with an updated product code and expiration date.
  - (c) Cryoprecipitated AHF
    - (i) Cryoprecipitated AHF is pooled using a closed system by American Red Cross and frozen prior to shipment. All Cryoprecipitate used at UTMC are pools of 5 single Cryoprecipitate units.
    - (ii) Due to the minimal amount of plasma contained in a unit of Cryoprecipitated AHF, it is selected without regard to ABO or Rh type.
    - (iii) Thaw cryoprecipitate immediately prior to transfusion in a 30-37°C circulating water bath, using an overwrap.
    - (iv) Cryoprecipitate must be used within six hours of thawing.
    - (v) When cryoprecipitate is thawed a new label is generated with an updated product code and expiration date.
  - (d) Single Donor Platelets

- (i) Leuko-reduced Low Volume Delayed Sampling (LVDS) Single Donor Platelets by Pheresis and Leuko-reduced Single Donor Platelets, Psoralen Treated by Pheresis are routinely used for platelet orders.
  - (ii) Consult the BTS Medical Director of O.D. when orders for platelets are received on patients that do not meet transfusion indication criteria.
  - (iii) Donor plasma in platelets should be ABO-compatible with adult recipients whenever possible. See the table below.
  - (iv) Use only Rh-negative platelets for Rh negative female recipients of child-bearing age or younger.
    - (a) If there are no Rh-negative platelets available, the BTS Medical Director may authorize transfusion of Rh-positive platelets for Rh-negative female recipients  $\leq 50$  years old. In these cases, Rh Immune Globulin prophylaxis should be initiated. Consult BTS Medical Director for dosing.
    - (b) Platelets, Pheresis are prepared by a method known to results in a component containing less than 2 mL RBC. When a product containing over 2 mL RBC is received, it should be rejected. If transfusion of the product is imperative, the unit must be crossmatched and compatible using cells from a donor sample.
  - (v) Use Type AB platelets for patients less than six months old.
  - (vi) Patients refractory to platelet transfusion must have a ten minute to one-hour post-transfusion platelet count to assess the response to transfusion.
    - (a) HLA-matched products may be ordered if the patient meets indication criteria and has been HLA typed. When HLA-matched LRSDP are not available, a trial of crossmatched platelets may be indicated. Inform the BTS Medical Director when the initial request for HLA-matched SDP or crossmatched platelets is received.
- (4) Use of non-type-specific Blood
- (a) Refer to the table below. Type-specific donor units are preferred with the following exceptions:
    - (i) Emergency situations in which inventory levels of type-specific blood are depleted or immediately unavailable.
    - (ii) Patients demonstrating incompatibility to type-specific blood following transfusion of non-type-specific blood (Type A patient transfused with several units type O blood and is now incompatible with type A units).
    - (iii) Special Antigen typed units that are type-compatible but not type-specific.
- (5) Section 5: Use of Rh-positive Blood for Rh negative or Rh unknown patients
- (a) Rh positive blood may be used for Rh negative patients in the following situations. Notify the BTS Medical Director so that Rh Immune Globulin prophylaxis may be ordered at the request of the patients' attending physician:
    - (i) Male recipient with negative antibody screen; Rh-negative blood in short supply
    - (ii) Female patient over 50 years with negative antibody screen; Rh-negative blood in short supply
    - (iii) Male recipient of unknown blood type when type O Rh-negative blood is in short supply

- (iv) Female recipient of unknown blood type when type O Rh-negative blood is in short supply
- (v) Rh-negative Massive Transfusion protocol patients (male or women over 50 years of age)

**DONOR-RECIPIENT COMPATIBILITY**

<b>ABO Type -(Recipient)</b>	<b>Type-compatible RBC (Donor)</b>	<b>Type-compatible Plasma (Donor)</b>
O	O	O,A,B,AB
A	A,O	A,AB
B	B,O	B,AB
AB	AB,A,B,O	AB
Unknown	O (Rh negative if available and appropriate)	AB

**(D) References**

- (1) AABB Standards for Blood Banks and Transfusion Services, current edition.

<p>Approved by:</p> <p>/s/</p> <p>_____          Lauren Stanoszek, M.D.          Assistant Professor          Director, Blood Transfusion Service</p> <p>3/1/2025</p> <p>_____          Date</p> <p>/s/</p> <p>_____          Russell Smith Pharm D, MBA, BCPS,          CPEL, FACHE          Senior Hospital Administrator</p> <p>3/7/2025</p> <p>_____          Date</p> <p>Review/Revision Completed by:          Danielle Weilnau MLS(ASCP)<sup>CM</sup></p>	<p>Policies Superseded by This Policy:</p> <ul style="list-style-type: none"> <li>• None</li> </ul> <p>Initial effective date: 10/1986</p> <p>All Review/Revision Dates:</p> <p>6/96          1/98          3/99          8/00          9/02          1/05          7/06          1/2008          6/9/2008          3/22/2011          3/01/2013          3/2/2015          3/1/2017          3/1/2019          3/1/2021          3/20/2023          03/2025</p> <p>Next review date: 03/2027</p>
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