

**Beaumont**

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Applicability Farmington Hills

## Response to Level One Trauma Activation - Farmington Hills Blood Bank

Document Type: Procedure

### I. PURPOSE AND OBJECTIVE:

This document will provide the Blood Bank staff with policies and instructions for preparing and dispensing emergency blood and blood components for Trauma patients in advance of patient arrival in the Emergency Trauma Center.

### II. CLINICAL SIGNIFICANCE:

- A. Trauma patients with massive bleeding may occasionally need blood or blood products so urgently that the patient registration, and antibody screen and crossmatch cannot be completed before blood is needed for transfusion. In such cases, blood will be issued uncrossmatched and tagged with a fictitious blood bank patient to facilitate rapid dispense from the blood bank.

### III. DEFINITIONS:

- A. **Child Bearing Age:** Females less than 50 years of age.
- B. **CRYO:** Abbreviation for Cryoprecipitate.
- C. **Dispense:** Process of issuing blood products for transfusion.
- D. **Plasma:** Refer to any type of plasma product, including liquid plasma and thawed plasma.
- E. **ABO-identical:** A component that is of the identical ABO blood group as the recipient.
- F. **ABO-plasma-compatible:** Refers to platelets, plasma, or cryoprecipitate. A component that

does not contain ABO antibodies corresponding to the recipient's ABO antigens.

- G. **ABO compatible RBCs:** Donor RBCs that lack the ABO antigens corresponding to the recipient's ABO antibodies.
- H. **Rh identical component:** A component that is of the identical Rh as the recipient.
- I. **Rh compatible component:** A blood component of the following specificity:
  - 1. For an Rh negative recipient, the component is Rh negative.
  - 2. For an Rh positive recipient, the component is either Rh positive or Rh negative.
  - 3. For a recipient with an Rh type that is undetermined for any reason, the component is Rh negative.
- J. **Compatibility testing:** Testing that must be completed prior to dispense in non-emergency situations. Includes sample labeling requirements, ABO and Rh testing, antibody screening, possible antibody investigations and crossmatching
- K. **Emergency issue:** A bleeding event in which the attending physician determines that blood components must be dispensed/transfused prior to completion of required compatibility testing
- L. **Standard Blood Bank cooler:** A temperature-monitored cooler used for inpatients that:
  - 1. Is intended for the transport of 1 - 6 blood components which require refrigeration.
  - 2. Has been validated for the transport of blood components.
- M. **Post-issue crossmatch:** Serologic compatibility testing of donor unit and recipient after the unit has been issued in an emergency situation and transfused to the recipient.

## IV. POLICIES:

### A. Authorization / Signature for Emergency Issue Blood Components

- 1. Authorization for emergency issue of blood products must be documented with signature on the *Blood/Component Pick Up Tag (x23480)* .
- 2. Signature by the patient's physician or designated mid level provider (Physician Assistant or Nurse Practitioner) is required for issue of uncrossmatched blood or blood products.
- 3. The signature is not required at the time of issue but signed release form must be submitted within 24 hours of Trauma Activation.

### B. Required Information

- 1. The Blood Bank requires the following patient information as soon as it becomes available after the arrival and registration of the patient
  - a. Patient's name or Undoe Name
  - b. Medical record number (MRN).

- c. Wrist band number.

## C. Patient Specimen

1. A type/screen specimen is not required to initially dispense components under the Emergency Issue Protocol.
2. A specimen should be collected prior to transfusion to avoid typing discrepancies.
3. Specimens must meet the requirements of Transfusion Medicine policy, [Triaging and Identifying Acceptable Blood Samples for Testing](#).

## D. Release of Products Prior to Patient Arrival

1. In order to reduce the time required to dispense products to red level trauma patients, the blood bank will always have a minimum of three (3) O negative RBCs labeled with information for a fictitious Blood Bank patient available in the blood bank to allow for rapid issue in advance of the patient arrival to the Emergency Trauma Center.
2. Upon receipt of a Trauma activation page, the blood bank will immediately pack 3 packed red cells in a transport cooler. Advanced Phone notification is not required.

## E. General ABO and Rh Requirements for Components Dispensed

1. RBCs will be dispensed under the trauma activation emergency issue protocol as follows:
  - a. If plasma is requested issue type A or AB.
  - b. Platelet components should be Rh negative if pediatric patient or individual with child bearing potential, if possible.
  - c. If cryoprecipitate is requested any type may be issued.
  - d. Refer to more specific guidelines located in Transfusion Medicine policy, [Emergency Issue of Blood Products](#)  
*Job Aid: Appropriate ABO and Rh of Emergency Issue RBCs*  
*Job Aid: Appropriate ABO and Rh of Emergency Issue Platelets, Plasma, and Cryoprecipitate*

## V. PROCEDURE:

### A. Advance Preparation of O Neg Units For Emergency Issue Buckets

1. Prepare a minimum of three (3) O negative RBC units for the *Trauma 1 Emergency Issue Bucket* as directed in the steps below:
  - a. Verify that the expiration dates of the adult units in the *Trauma 1 Emergency Issue Bucket* are acceptable (greater than 10 days from expiration).

- b. If the expiration date is unacceptable, then return the unit to inventory and obtain a suitable replacement unit from the inventory.
2. Obtain a blank copy of the *Trauma Activation Response & Cooler Distribution Log* and document the three units numbers in the respective boxes on the form. A unit label from the back of the unit may be used for this purpose.
3. Tag each unit with an UNCROSSMATCHED BLOOD label.
4. Remove two segments from each unit. Label them with a unit number sticker from the back of the unit and place them into a plastic bag.
5. Make a copy of the face label of each unit and place with the segment in the corresponding plastic bag.
6. Select the unit(s) in the Blood Bank Computer using Product Selection and the designated fictitious patient information provided below:
  - a. Patient Name: TESTBLOODBANK, FH TRM ONE
  - b. Patient MRN: TESTFHTRM1
7. Print the P-Tag.
8. Remove the transfusion label from the P-Tag and attach to the manilla tag on the unit. Verify that the unit information on the label matches the component face label.
9. Detach the bottom paper portion of the P-tag and place in the in the corresponding plastic bag with segments and copy of the unit face label. Discard the extra label that prints on the P-Tag.
10. Load the printer with the yellow paper designated for print of Trauma tag.
11. Reprint one additional copy of the p-tag on the designated yellow paper which will be used to recoup actual patient information in the blood bank computer.
12. Fold the yellow copy of the P-tag attach with a rubber band.
13. Return the *Trauma Activation Response form*, the plastic bag and the unit(s) to the *Trauma 1 Emergency Issue Bucket*.

## B. Response to Activation Page

1. When a trauma activation page is received in the Blood Bank, staff is to assume that the need for blood is urgent and proceed as outlined below.
2. Document the attached *Trauma Activation Response & Cooler Distribution Log* with the time and details of the activation page and immediately alert your co-workers.
  - a. Record the Time of the activation
  - b. Document the age/sex of the patient and details provided on the page.
3. Prepare a standard cooler in accordance with Transfusion Medicine policy, [Transporting Blood Components in a Cooler](#)
4. Obtain 3 units from the Trauma 1 Emergency Issue Bucket.
5. Retain the bag containing the copies of unit face label, retained bottom portion of the P-Tags

- and segments from each unit issued. These segments will be used to perform post issue crossmatches.
6. Place units in the cooler and document the cooler identification and the time packed on the *Trauma Activation Response & Cooler Distribution Log*.
    - a. Set a timer for 4 hours.
  7. The runner picking up blood should have a completed *Blood/Component Pick Up Tag* (x23480).
    - a. If the runner does not have the appropriate documentation, the technologist will immediately dispense the products and report issue on internal variance report when time permits.
      - a. If the form is not signed return the form with the runner for signature and document on the *Trauma Activation Response & Cooler Distribution Log*.
    - b. Document the employee ID# /printed name of the transport runner and actual time of dispense on the *Trauma Activation Response & Cooler Distribution Log*. Note: Identification must be legible and traceable. Illegible signatures are not allowed.
    - c. Request a type/screen sample be sent if not already received.
  8. If additional products are required and patient information is available select and Emergency issue in the Blood Bank Computer using the actual patient MRN. Refer to Transfusion Medicine Policy, [Safetrace \(Blood Bank\) Application : Emergency Issue of Blood Products](#)
  9. If additional products are required before patient is identified continue to use fictional MRN to select and tag additional products in the blood bank computer.
    - a. In the Blood Bank computer, select components of the appropriate ABO and Rh in accordance with policy, *General ABO and Rh Requirements for Components Dispensed*.
    - b. Do not issue the products under the fictional patient.
    - c. If necessary component tags may be prepared manually.
  10. As soon as possible, complete the type and screen testing in accordance with routine procedure.
  11. Document the cooler return time and temperature of the cooler on the *Trauma Activation Response & Cooler Distribution Log*.
  12. Determine whether any products returned in the cooler is acceptable for reissue. Refer to Transfusion Medicine policies [Transporting Blood Products in a Cooler](#) and [Return of Blood Products From Issue](#).
  13. Document the units final disposition on the *Trauma Activation Response Form*.
  14. Units used uncrossmatched and assigned to fictitious patient are processed as follows:
    - a. Release the units from the appropriate fictitious patient and select to the identified patient as confirmed by patient sticker on the yellow copy of the P-Tag returned with the cooler.
    - b. Emergency Issue blood products in the computer using the time from the *Trauma Activation Response & Cooler Distribution Log* when the products were received by

the runner.

- c. Retain the P-Tags for the units and file with the corresponding copies of the original P-Tags.
- d. Perform post issue crossmatches and full crossmatches when appropriate. Refer to [Post-Issue Crossmatch](#) in the Transfusion Medicine policy, [Serological Crossmatching of Red Blood Cells](#).
  - i. If incompatibility is detected at any stage of the testing, immediately notify the patient's physician and the Blood Bank Medical Director or other Blood Bank pathologist or fellow.

15. When time permits replace the unit(s) in the buckets as described in *Advanced Preparation of Unit Procedures* above.

## C. Additional Units For Potential Second Patient

- A. If necessary an additional three (3) O Negative RBC units can be prepared in anticipation of a second trauma patient using a second blood bank fictional patient as directed in the procedure above.
  - 1. Patient Name: TESTBLOODBANK, FH TRM TWO
  - 2. Patient MRN: TESTFHTRM2

## VI. REFERENCES:

- 1. AABB, *Technical Manual*, current edition.
- 2. College of American Pathologists, *Transfusion Medicine Checklist*, current edition.

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## Attachments

[Trauma Activation Response & Cooler Distribution Log \(rev. 10/15/2024\)](#)

## Approval Signatures

Step Description	Approver	Date
	Ryan Johnson: OUWB Clinical Faculty	Pending
Policy and Forms Steering Committee (if needed)	Kelly Sartor: Mgr, Division Laboratory	10/16/2024

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Technologist Lead [KS]

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10/16/2024

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## Applicability

Farmington Hills

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