Emergency Transfusion Guide
University of Chicago Medicine

**Step 1:** Administer emergency O Negative RBCs if stored on your unit.

**Step 2:** Select the appropriate emergency transfusion pathway.

A. **Emergency release:**
   - Patient needs 1-5 units of RBCs, 1-3 units of FFP, or 1 plateletpheresis emergently
   - Blood will be uncrossmatched unless the patient already has units crossed.

B. **Adult or Obstetrical Massive Transfusion Protocol (MTP):**
   - Patient needs ≥6 units RBCs in 4 hours, or
   - Replacement of total body volume (TBV) in 24 hours, or
   - Blood loss >150 mL/min
   - The first MTP pack will be uncrossmatched regardless of Type & Screen status

C. **Pediatric MTP indications:**
   - Patient age 0-17 years old
   - Replacement of >50% TBV in 3 hours, or
   - Replacement of >100% TBV in 24 hours, or
   - Blood loss >10% TBV/min
   - The first MTP pack will be uncrossmatched regardless of Type & Screen status

**Step 3:** Follow the attached guide(s)

- ALWAYS call Blood Bank first to request emergency release or activate MTP
- Place Epic transfusion orders when time allows
Blood Bank turn-around-times:

<table>
<thead>
<tr>
<th>Task or Test</th>
<th>Turn-around-time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stat Type &amp; Screen</td>
<td>60 min from receipt</td>
</tr>
<tr>
<td>Stat ABO Verification</td>
<td>15 min from receipt</td>
</tr>
<tr>
<td>Product thawing (frozen plasma, cryoprecipitate)</td>
<td>25-30 min</td>
</tr>
<tr>
<td>Extended crossmatch (for antibodies)</td>
<td>60+ min</td>
</tr>
<tr>
<td>Product preparation, Emergency release</td>
<td>&lt; 5 min</td>
</tr>
<tr>
<td>1st MTP pack (for patients age &gt;15)</td>
<td>10 min</td>
</tr>
<tr>
<td>Product prep, 2nd or greater MTP pack</td>
<td>10-20 min</td>
</tr>
</tbody>
</table>

- Do not send Blood Bank specimens to the main laboratory; send them directly to Blood Bank (tube #400). Sending Blood Bank specimens to the main laboratory results in delays of ≥30 minutes. Blood Bank tests include:
  - Type & Screen – pink top
  - ABO verification – tan top
  - TEG 6S – blue top

- Blood Bank automatically prepares a keep-ahead MTP pack ahead of request to minimize delays.

- Patients younger than 15 years old require group AB plasma. Processing time for group AB plasma may be 25-30 minutes during critical inventory shortages.
EMERGENCY RELEASE BLOOD REQUEST

1. **GIVE O NEG RBCS FROM REFRIGERATOR IF AVAILABLE**

2. **CALL BLOOD BANK: 2-6827**
   a. “I need ___ (quantity) units of emergency release ______.”
   b. “The patient’s name is _______ and MRN is _______.”
   c. “Patient is ___ years old and their date of birth is _____.
   d. The patient is a _______ (male or female).”
   e. “Patient’s location is _____ (unit), room _____.”
   f. “The physician requesting blood is ______.” (give full name)
   g. “My name is _____ and my call-back number is ______.”

3. **YOU MAY REQUEST**

<table>
<thead>
<tr>
<th>BLOOD PRODUCT</th>
<th>QUANTITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>RED BLOOD CELLS</td>
<td>1-5 UNITS</td>
</tr>
<tr>
<td>FRESH FROZEN PLASMA</td>
<td>1-3 UNITS</td>
</tr>
<tr>
<td>PLATELETPHERESIS</td>
<td>1 UNIT</td>
</tr>
</tbody>
</table>

   a. Allow up to 5 minutes to receive products
   b. Plasma may require up to 30 minutes if thawing is required

4. **PLACE EPIC TRANSFUSION ORDER(S) WHEN TIME PERMITS**
   a. Keyword search “emergency”, “transfuse”, or “release”

5. **CALL BLOOD BANK FOR PRODUCTS OR MTP 2-6827**

**ACTIVATE MTP IF ≥6 RBCS NEEDED FOR ADULTS**

EMERGENCY RELEASE BLOOD REQUEST

BLOOD BANK IS IN CCD EAST, 2ND FLOOR
ROOM: 2-2730
PHONE: 2-6827
TUBE: 400

DESIGNATE ONE PERSON TO CALL BLOOD BANK

MASSIVE TRANSFUSION PROTOCOL
Adult or Obstetrics Activation

1. **CALL BLOOD BANK TO ACTIVATE: 2-6827**
   b. “My name is _____ and my call-back number is ______.”
   c. “The patient’s name is _____ and MRN is ______.”
   d. “Patient is ___ years old and their date of birth is ______.”
   e. “Patient is a ____.” (male or female)
   f. “Patient’s location is _____ (unit), room _____.”
   g. “We need a _____ (single or continuous) pack.”
   h. “The physician requesting MTP is ______.” (give full name)

2. **CARE TEAM RUNNER WILL TRANSPORT:**

<table>
<thead>
<tr>
<th></th>
<th>RBCS</th>
<th>FFP</th>
<th>PLT</th>
<th>CRYO POOL</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADULT</td>
<td>6</td>
<td>4</td>
<td>1</td>
<td>1 upon request</td>
</tr>
<tr>
<td>OBSTETRICS</td>
<td>6</td>
<td>4</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

   1. One (1) platelethpheresis = Six (6) or more platelet units; each plateletpheresis is one (1) dose.
   2. One (1) cryoprecipitate pool = Five (5) cryoprecipitate units.

   a. Cryoprecipitate pool only available by request for non-OB patients
   b. Allow up to 10 minutes to receive first MTP pack
   c. Allow up to 30 minutes to receive cryoprecipitate or plasma requiring thaw

3. **CALL BLOOD BANK IF: 2-6827**
   a. Additional MTP pack needed (single-pack MTP only)
   b. Different MTP needed (e.g. from continuous to a single-pack)
   c. Patient transferred to new unit

4. **PLACE EPIC ORDER(S) WHEN TIME PERMITS**

5. **CALL BLOOD BANK TO DEACTIVATE**

MASSIVE TRANSFUSION PROTOCOL
Adult or Obstetrics Activation

BLOOD BANK IS IN CCD EAST, 2ND FLOOR

ROOM: 2-2730
PHONE: 2-6827
TUBE: 400

1. Activate
2. Resuscitate
3. Communicate
4. Deactivate

MASSIVE TRANSFUSION PROTOCOL
Pediatric Activation

1. **CALL BLOOD BANK TO ACTIVATE: 2-6827**
   b. “The patient’s name is ______ and MRN is ________.”
   c. “Patient is ___ years/months old and their date of birth is ____.”
   d. “The patient weighs ______ kg.”
   e. “Patient is a ____.” (male or female)
   f. “Patient’s location is _____ (unit), room ____.”
   g. “We need a _____ (single or continuous) pack.”
   h. “The physician requesting the MTP is ______.” (give full name)
   i. “My name is _____ and my call-back number is _______.

2. **CARE TEAM RUNNER WILL TRANSPORT:**

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<tr>
<th>Products Sent with MTP Runner</th>
<th>Recommended Administration</th>
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<tbody>
<tr>
<td>&lt;40 kg</td>
<td>5-9 kg</td>
</tr>
<tr>
<td>3 RBC</td>
<td>1 RBC</td>
</tr>
<tr>
<td>2 FFP</td>
<td>1 FFP</td>
</tr>
<tr>
<td>1 PLT&lt;sup&gt;1&lt;/sup&gt;</td>
<td>½ PLT</td>
</tr>
<tr>
<td>Cryo by request only</td>
<td>1 UNIT Cryo</td>
</tr>
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1. ONE (1) PLATELETPHERESIS = SIX (6) OR MORE PLATELET UNITS.
2. ONE (1) CRYOPRECIPITATE POOL = FIVE (5) CRYOPRECIPITATE UNITS.

   a. May request cryoprecipitate if needed
   b. Allow up to 10 minutes to receive first MTP pack
   c. Allow up to 30 minutes to receive cryoprecipitate

3. **CALL BLOOD BANK IF: 2-6827**
   a. Additional MTP pack needed
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MASSIVE TRANSFUSION PROTOCOL
Pediatric Activation

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ROOM: 2-2730
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TUBE: 400

1. Activate
2. Resuscitate
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DESIGNATE ONE PERSON TO CALL BLOOD BANK

Massive Transfusion Protocol (MTP) Algorithm
Adult, Obstetrics, Pediatrics

MTP Roles (Key)
- Attending or Designee
- Bedside Clinician (MD or RN)
- Care Team Contact
- Care Team Runner

Recognize blood loss & mobilize care team

MTP coolers packed and issued to runner(s) until deactivation

CONTINUOUS

Single or Continuous pack?

SINGLE

1 MTP cooler issued, next cooler packed upon request

Send Hemorrhage Panel after each MTP pack
Main lab tube 901

Patient is stable

NO

Need more products?

YES

Call to request MTP pack, send a runner
Blood Bank 2-6827

Important Blood Bank Info:
Phone: 2-6827
Tube #: 400
Room: CCD 2730

Turn-Around-Times
- 1\textsuperscript{st} MTP pack
  - 10 min
- Thaw time (Frozen plasma or cryo)
  - 25-30 min
- Stat Type & Screen (T&S)
  - 60 min from receipt
- Stat ABO verification (ABO2ND)
  - 15 min from receipt

MTP Pack Contents:

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Author: Ariana King
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1. Take a patient demographic sticker or other form of patient ID (anything with name & MRN)
   - Patient name and MRN is required to pick up MTP cooler

2. Take the MTP Card from your unit for emergency elevator access
   - Double tap MTP card to recall the elevator
   - Return the card to your unit after each use
   - Card use is monitored by Public Safety and Blood Bank Quality Assurance

3. Go to the Blood Bank, CCD East room 2-730 and ring the doorbell (red circle)
   - Follow way-finding signs to Blood Bank or use map from Emergency Transfusion Guide on crash cart

4. Transport the cooler directly to the care team

5. Keep the MTP cooler at the patient’s bedside until the MTP is deactivated
   - Cooler expiration time and patient ID will be on the front of the cooler (blue circle)
   - Cooler expires four hours from when it is packed
   - Keep cooler closed except to retrieve & give products
   - **DO NOT** place platelets or cryoprecipitate inside cooler
   - Store platelets and cryoprecipitate in the pack attached to cooler (red arrow)

6. Care team must return the cooler(s) to the Blood Bank if...
   - MTP is deactivated
   - Cooler is within 15 minutes of expiration
   - Cooler is empty and will be swapped for a new MTP pack