

UnityPoint Health Pekin	Page 1 of 3	Section: Blood Bank	Policy #: UPPK BB-0589
Laboratory	Approved by:	see signature block at end of document	
	Date Revised:	05/24/19	
	Date /Reviewed:		
	Policy/Revision Submitted by:	Jenny Turner, MLS (ASCP)	
	CAP Standard:	Medical Alert Transfusion Protocol, TRM.40770, TRM.42470, TRM.42480	
<b>POLICY GUIDELINE ON: MASSIVE TRANSFUSION GUIDELINE</b>			

### I. POLICY STATEMENT:

Massive transfusion is defined as 10 or more units of packed red blood cells in the first 24 hours or replacement of at least one blood volume within the first 12 hours of resuscitation. Blood Bank personnel will adhere to this policy to be able to react quickly to the patient's needs.

### II. PURPOSE:

To provide a standard for the delivery of blood products for patients that meet criteria for massive transfusion.

### III. GENERAL INFORMATION:

- A. Institution of the massive transfusion protocol will be ordered by the attending physician, in a massive trauma or massive bleeding cases, when it is anticipated that an adult patient will require about 10 units or more of PRBCs within the first 12 hours or pediatric patients will require a transfusion of greater than 0.1 units/kg of PRBCS within the first 12 hours of resuscitation.
- B. The attending physician will determine the clinical decisions of the patient's needs.
- C. Note: Initiation of the "Massive Transfusion" protocol may delay service to other patients depending on availability of personnel.
- D. The code to initiate the Massive Transfusion protocol is "Medical Alert Transfusion Protocol to \_\_\_\_.(room #)" The staff from the affected area will call 3737 to notify the Lab starting the need for the Massive Transfusion and if it is a drill or not. The Lab personnel who takes the call will page overhead in the lab "Massive Transfusion Protocol' and if it is a drill or not."

### IV. PROCEDURE:

- A. Upon hearing the overhead page, any available Blood Bank techs should report to the Blood Bank area to help. If this occurs on 3<sup>rd</sup> shift, the 3<sup>rd</sup> shifter should immediately call additional personnel and/or supervisor for help.
- B. The Blood Banker will delegate tasks to other technologists and keep things organized. The Blood Banker will oversee everyone to make sure protocols are followed correctly.
- C. We have 3 main duties in Blood Bank immediately after the initial code is called.
  1. Place 4 units of AB FFP in to thaw (If the patient's current blood type is known at this point, thaw type specific). In a drill, we will push the button to start the thawing process WITHOUT any FFP in it and document the time the thaw process is started.

2. Call Red Cross to order platelets and replenish plasma. Have them deliver 2 platelet pheresis (type specific if patient's type is known and available), and 4 more FFP (to replace what is being thawed), STAT. IF we don't know patient type, may add 4 more O negative PRBC at this time. Order more cryo to replenish stock after it is certain that the 2 we have in stock are used.
  - a. Platelets will be stored in the Incubator/agitator.
  - b. In a drill (or mock simulation), we will pretend to call Red Cross and document the time we called them on a piece of paper.
3. **(COOLER #1)** Process 4 units of O negative Packed Cells which should be ready to hand out. There is a tub in the Blood Bank refrigerator which includes these items:
  - a. 4 units O negative packed cells. Pull glass tube with labeled pigtail and set aside for crossmatching. (Note: If patient has a blood type already known from current admission, type specific packed rbc's should be given in place of O negs.)
  - b. 4 temperature indicators. Attach a temperature sticker to the back of each unit (BB-0590). Also, attach an "UNCROSSMATCHED" label (located in BB drawer) to the front of each unit.
  - c. The "EMERGENCY REQUEST FOR UNCROSSMATCHED BLOOD" form. (UPPK BB 0589.01)
    1. Attach each donor unit number (sticker) to this form.
    2. The person taking the blood components must sign this form.
  - d. Large red Bio-Hazard bag for empty donor units to be returned in.
- D. **Photocopy the front of each unit before placing in a cooler to hand out. Have the person signing out the units write their initials and the time on the photocopies for our records.**
- E. Place all units in a Medicus-Health hard-sided cooler for transport. These coolers are validated for 2-10 units up to 6 hours. The cooler must be packed with a large frozen blue ice pack (-32° C) flat on the bottom, 2 large refrigerated blue ice packs (3-5° C) standing up on the sides of the cooler, and the units of prbc's and/or FFP (with temperature indicators properly placed on them) placed standing up in the white tray that is with the cooler. Then place entire white tray, units and all, on top of the frozen blue ice pack.
- F. Obtain the patient's name and date of birth.
- G. Nursing should bring the patient's specimen to the lab. The specimen should be a pink EDTA tube, labeled properly and with BBID band number on it. (See Procedure UPPKBB-0264 STAT ABO/Rh Type for Emergency Request of Uncrossmatched Blood.) *You must have a current specimen to determine type specificity you cannot only have a "history".*
- H. O positive RBCs can be substituted if Rh negative units are not available with pathologist and attending physician approval. A "Deviation from Standard Operating Procedure" form must be filled out (UPPK BB 0589.02).
- I. Once the ABO/Rh of the patient has been determined, type specific, uncrossmatched units can be given.
- J. Selection of Blood and Components for Transfusion Policy (UPPK BB 0460) can help with selection of blood type components.



- K. (Cooler #2) Include a Massive Hemorrhage Requisition form (UPPK BB 0589.03), from the Massive Transfusion Protocol clipboard located on the BB desk, with 1 blue, 1 green, and 1 lavender top tube.
- L. Blood products will continue to be set up according to the order in the table below. \*\*\*The Physician can adjust these orders at any time as needed.\*\*\* Try to keep ahead if at all possible.

Cooler #	PRBC's	Plasma (FFP)	Platelets- *Given per Lab results	Cryoprecipitate *per physician order – for fibrinogen <100mg/dL; 16 min to thaw
1	4 units O neg uncrossmatched; <i>Order 4 more</i>	Begin to Thaw 4 FFP (Type AB); <i>Order 4 more</i>	<i>Order 2 plateletpheresis</i>	
2	6 units (uncrossmatched, type specific if known)	4 units – Given after 10 units PRBC'S and/or per labs	1 plateletpheresis	<i>Lab sends a Massive Hemorrhage requisition, 1 blue, 1 green, and 1 small lavender tube with cooler #2</i>
3	6 units	4 units <i>Order more FFP if needed</i>	1 plateletpheresis; <i>Order more platelets if needed</i>	2 units (pooled)=10 single units; <i>Order 2 more units cryo</i>
4	6 units	4 units	1 plateletpheresis	2 units (pooled)= 10 single units

\*\*\*Physician can adjust orders at any time as needed\*\*\*

- M. If available, a Nursing staff runner will come to the lab to retrieve the blood products. Exception is the OR. It is normal procedure for the lab to deliver to the OR. The key to OR is on the Blood Bank refrigerator on the red hook. Lab personnel may need to deliver the products if necessary.
- N. When the Massive Transfusion is terminated, the nursing staff will call the Blood Bank to notify of no further need for blood products, and the operator will announce the all clear.
- O. Testing, ordering, entering results in the LIS, and paperwork will be completed.

<b>POLICY CREATION :</b>	
<i>Author: Suzanne Behle, MT (ASCP)/ Jenny turner MLS (ASCP)</i>	<i>March 14, 2018</i>
<i>Medical Director: Kathryn O, Kramer, MD</i>	<i>March 14, 2018</i>

<b>MEDICAL DIRECTOR</b>		
DATE	NAME	SIGNATURE
6/25/19	Loni Racsm	AUDO
<b>SECTION MEDICAL DIRECTOR</b>		

<b>REVISION HISTORY (began tracking 2011)</b>			
Rev	Description of Change	Author	Effective Date
01	Changed order set, added Cryo, added thawing 4 units of FFP at a time, added Massive Transfusion Requisition and tubes with 2 <sup>nd</sup> cooler, added photocopying of units before handing them out	Jenny Turner	5/24/19

Reviewed by

Lead	Date	Coordinator/ Manager	Date	Medical Director	Date
Jenny Turner	6-24-19				