Methodist Health Services Corporation Laboratory 7000	Page # 1 of 4	Section: BB	Policy #: 41
	Approved by: Elizabeth A. Bauer-Marsh, M.D.		Date: 11/8/13
	Date Revised/Reviewed: Supersedes		
	Policy/Revision Submitted by: Kathy L. Turpin		
	JCAHO Standard: IM		

POLICY ON: Blood Bank Massive Transfusion Policy

I. POLICY STATEMENT: Blood Bank will respond immediately when a Code Blood Bank is called on the hospital's overhead paging system.

II. PURPOSE: To ensure an adequate supply of blood products to a massive hemorrhage patient until the bleeding can be arrested.

III. SCOPE: All Blood Bank personnel will respond to a code Blood Bank.

IV. GENERAL INFORMATION: In a life threatening emergency, a physician may order the initiation of the massive blood transfusion response to a massive hemorrhage.

A massive hemorrhage can be defined as follows:

(i) Blood loss exceeding circulating blood volume within a 24-hour period,
(ii) Blood loss of 50% of circulating blood volume within a 3-hour period,
(iii) Blood loss exceeding 150 ml/min., or
(iv) Blood loss that necessitates ≥8-10 units of PRBC transfusion.

Even massive blood loss may not necessitate the need for blood replacement. This is a clinical decision to be made by the physician. If a massive blood transfusion is being initiated by a physician, overhead announcement, "Code Blood Bank to room _____" will be made.

V. PROCEDURE: When a "Code Blood Bank" is initiated by an overhead page the blood bank will immediately request a laboratory overhead page for all Blood Bank personnel and the Technical Coordinator to report to Blood Bank. Blood Bank staffing should be at a minimum of three techs; off-shifts/weekends may need to call in additional personnel. Blood Bank will also receive a phone call from the Blood Bank communicator at the site of the code.

NOTE: Initiation of a Code Blood Bank may delay service to other patients depending on availability of personnel.

1.) As soon as a code Blood Bank is called the first cooler on the cooler order chart detailed below in step 9 should be packed. Two plateletpheresis should be ordered from ARC and four AB FFP should be put into the plasma thawer to thaw.

2.) Initiate an emergency transfusion form.

3.) If possible, obtain the patients name and date of birth from the Blood Bank Communicator. If this is not possible the blood bank runner will obtain the patients name and date of birth when the first cooler is delivered.

4.) Request a pink top EDTA tube or locate an EDTA tube in Hematology for testing, if necessary.

5a.) Designate a Main Blood Banker. The main blood banker will perform all necessary testing and tell other technologists what s/he needs them to do. The Main Blood Banker should have the ability to accurately and quickly perform testing. Proficiency with HBB and HLAB systems should also be considered. The Main Blood Banker is responsible for completing the ABORH and Antibody Screen

and setting up crossmatches ASAP. If necessary, and at the Main Blood Bankers discretion, s/he may assign screening of units to other techs.

5b.) Designate a Blood Bank Runner from available Blood Bank staff. The runner will ensure products are delivered to the floor in the timeliest manner possible. The Runner should make and maintain contact with the Lead Nurse and Blood Bank Communicator. When time allows the runner will get the physicians signature on the emergency transfusion form.

5c.) Extra personnel should perform whatever task asked of them by the main blood banker, or be responsible for STAT testing that needs to be performed outside of the ongoing code (ED, OR, runs, thawing products, etc).

5d.) As soon as the situation allows, contact the Medical Director of Blood Bank if he/she is scheduled at UnityPoint Health; if they are not available contact the Clinical Pathologist for the day. After 5:00pm., contact the on-call pathologist.

6.) If staffing allows, there should be a designated technologist that answers all phone calls and receives in all ARC deliveries. If staffing does not allow for this additional person, contact the Technical Coordinator or if after regular hours contact the on call Laboratory Administration.

7.) O negative units must be used until a type can be determined. If the patient has a current, active Blood Bank specimen with a known ABORH, type specific units may be used. O negative units should be used for women of child bearing age. Product inventory restraints may require O positive units to be used.

8.) Once the ABORH has been determined and a bedside type has been performed (if indicated), type specific uncrossmatched units can be given. A component inventory levels report should be printed (directions below). On the Component Inventory Levels report, pull and place a unit sticker next to the unit you are going to transfuse (this will ensure accurate retention of product information in the laboratory). The unit stickers should also be pulled and placed on the emergency transfusion form.

DIRECTIONS: To print a Component Inventory Levels report you must be in the inventory module of Horizon Blood Bank. Select utilities on the main menu bar. Select inventory levels and component. On the Component Inventory Levels window fill in the Product Id (RBC), ABO (O or patient type if known), Rh (N or P), Status A(Available), and detail By Std Prd Code. Select query and in the Inventory Results section highlight the standard product code that you want to display, then select detail. The Component Inventory Level Detail window will open and select print. A print preview window will open and select the printer icon.

9.) Additional uncrossmatched pRBCs shall be provided, if necessary, until a T&S has been completed. If a T&S is already completed on an active specimen, crossmatched units should be set up ASAP, if the situation allows.

10.) The nursing staff will be ordering blood products by cooler numbers. The following are the cooler numbers and the type of blood products included in each cooler (Platelet Pheresis and cryo- precipitate should be packed in a separate room temperature cooler).

Cooler #	**PRBC's**	**Plasma (FFP) Expire in 24 hrs * Note: Use blue and white cooler for FFP.**	**Platelets – Given per Lab results**	**Cryoprecipitate –** Per physician order – for fibrinogen less than 100mg/dL 8 minutes to thaw
1	4 units O neg. uncrossmatched			

2	6 units	4 units - Given after 10 units PRBC's and/or per labs	1 apheresis	
3	4 units	4 units	1 apheresis	2 units (pooled)
4	4 units	4 units	1 apheresis	2 units (pooled)

Physician can adjust orders at any time as needed

11.) It is the responsibility of the floor to order the blood products. The cooler policy should be in place, however if cooler policy is not being followed, ensure products are processed ASAP. If the floors are having computer issues lab will need to order until issues are resolved.

12.) Stay as far ahead on pRBCs, FFP, and PLTs as possible; Blood Bank should proactively thaw AB FFP until ABORH is confirmed to ensure a best-outcome transfused blood/plasma ratio. As soon as a cooler leaves Blood Bank FFP and/or Cryo should be thawed for the next cooler.

13.) Blood Bank Runner shall request that all used containers for blood products be saved in a red biohazard bag in case a transfusion reaction workup and culture are required. Once the Code Blood Bank is over, the red biohazard bag, with the empty blood product bags, will be kept in blood bank for 24 hours.

14.) If the patient has a known history of clinically significant alloantibodies, all pRBC units must be screened antigen negative for the antibody if possible. If time does not allow for antigen screening order the units antigen negative from ARC STAT. Patient antibodies may not be showing due to dilution.

15.) Antigen positive blood or blood that has not yet been screened may be emergently issued upon written approval from the patient's physician. Document approval on the emergency release form and in the SOP Deviation log.

16.) After 12 units of blood have been transfused immediate spin cross matches are no longer required.

17.) Continue setting up units and product until no longer necessary. Replace coolers as needed. Order stock to replenish shelves as needed. The three tech minimum in Blood Bank shall apply until the Code Blood Bank is terminated.

18.) Constant communication with the Blood Bank Communicator is vital. Blood Bank may inquire as to whether the Code Blood Bank should continue. It is the responsibility of the floor to notify the Blood Bank to discontinue the Code Blood Bank. Normal patient service may be impaired for the duration of the Code Blood Bank.

19.) The antibody screen and cross matches will be performed as soon as time allows. *Note: When the Main Blood Banker is selecting units in the computer and must exit the patient record so that units can be issued select the clear button before exiting the product selection screen.

VI. RELATED DOCUMENTS:

a. Reference chart for Coolers located in Blood Bank.
b. Blood Bank Emergency Transfusion Form located in Blood Bank.

VII. MAINTENANCE AND STORAGE:

a. All policies and procedures are reviewed every two years by Laboratory Administration and or the Medical Director of the Laboratory or designee.
b. The Laboratory Administration and Medical Director review policies and procedures when there are changes in practice standards, or requirements.
c. All policies and procedures are reviewed every two years by staff or at the time new or revised ones are put in effect.
d. All policies are retained 8 years after being discontinued or revised.
e. All procedures are retained 2 years after being discontinued or revised.

MMCI Laboratory is a CAP accredited facility, as of 7/1/11 the responsibility of new and/or substantially revised policies and procedures will be restricted the Laboratory Director whose name appears on the CLIA certificate, whose signature appears below. The biennial review will be completed by the Administrative Director.

Policy Created by: Kathy Turpin/Dawn Allen/ Vincent Strow_ Date: _November 08, 2013

Medical Director Approval: Demetrios V. Trivelis _____ Date: _11/8/2013_____

REVISION HISTORY			
Rev	**Description of Change**	**Author**	**Effective Date**
1	Initial Release	Kathy Turpin Dawn Allen Vincent Strow	11/08/2013

Reviewed by	**Date**	**Coordinator**	**Date**	**Medical Director**	**Date**
D. Allen	11/8/2013	Kathy L. Turpin	11/8/13	Demetrios V. Trivelis Elizabeth A. Bauerlein MD	11/8/13 11/8/13