Erlanger Health System
Policy and Procedure

Origination Date: May 2005		
Approval: _____		
Reviewed Date:	**Revised Date:**	**Approval:**
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Index Title: Massive Blood Resuscitation Protocol

Originating Department: Trauma Surgical Critical Care

Number: 7135.215

Description for EHS Intranet:

Policy statement: To provide a consistent and expedient method for preparing and obtaining blood products for use in patients experiencing massive hemorrhage.

Indications:

A. Class IV Shock (blood loss greater than 1500-2000ml), with no imminent end to the blood loss (e.g. control of a discrete bleeding source) in sight.

B. Initial blood loss requiring at least 10 units of blood replacement. The actual loss of this much blood does not necessarily have to occur before the judgment is made that such loss is imminent.

C. Conditions associated with the need for massive transfusion include multiple trauma patients with chest or abdominal bleeding or massive pelvic fractures.

NOTE: The important characteristic is that there is BOTH substantial acute or imminent blood loss AND a likelihood that substantial blood loss will continue over the short term (minutes to a few hours).

Policy:

A. Initiation of the Massive Blood Resuscitation Protocol (MBRP):

1. Only the attending physician or senior resident directly involved in the care of the patient may implement the protocol.

2. Blood Bank staff are to stay ahead of all requested blood products to ensure an uninterrupted supply of appropriate blood products. The composition of the initial two packs to be prepared in an MBRP situation is as follows:

a.	PRBC's	6 units
b.	FFP	4 units
c.	Platelets	one platelet pheresis or a six pack of platelets

NOTE: Close communication with blood bank personnel is essential to ensure effective use of products with minimal wastage.

3. The physician who implements the protocol is responsible for ordering cessation of the MBRP when the patient's condition stabilizes. If the care of the patient has been transferred to another attending or senior resident physician, then that physician also inherits responsibility for the MBRP.

Procedure:

A. The Trauma Nurse Specialist (TNS) or a designated nurse will call the Blood Bank directly and state, “Initiate massive blood resuscitation protocol on (patient name) per (initiating physician’s name)”.

B. The Massive Blood Resuscitation orderset will be accessed via IBEX, Net Access or the intranet.

C. Two pink tubes will be drawn on patients who meet Major Blood Resuscitation Protocol. Tubes will be labeled with the standard blood bank identification information including a typenex number on each tube and delivered to the blood bank immediately.

D. Eight (8) units of O negative blood are kept in the trauma bay blood cooler and four (4) units in the OR for immediate transfusion. After these units have been exhausted, a cooler with an additional four (4) units O negative can be picked up from the blood bank.

E. The cooler will be labeled with a blood expiration date and time. After the expiration date and time the coolants will need to be replaced by blood bank.

F. Upon activation of MBRP, one person in the ED, OR suite or ICU will be designated as the blood courier. The Charge Nurse of each respective department will be responsible for designating the blood courier.

G. As soon as a blood sample is received in the Blood Bank, a type will be performed. *(Type specific blood should be available within 20minutes from time a sample is received for typing.)* An emergency blood request form will also be put in the cooler on each unit. The Blood Bank will notify the ED/OR/ICU as soon as the first cooler of blood products is ready for pick up. Blood Bank will start thawing four (4) units FFP immediately when blood type is completed and then stay four ahead.

H. The blood courier from the ED/OR/ICU will pick up the large cooler of blood products. The blood courier is responsible for returning any unused units of blood products to the Blood Bank on or before the expiration time on the cooler.

I. After the first cooler of type specific blood products is picked up, the lab will stay 6 units ahead of crossmatched blood.

J. The resuscitation personnel will count the number of units of PRBCs the patient has received, and number the units #1, #2, #3, etc.

K. After the transfusion of six (6) units of PRBCs, four (4) units of FFP will be given. H&H, PT, PTT & Platelet count will be drawn and sent to the lab STAT when the FFP is started.***

L. Consider use of Factor VII. (Must complete orderset #4059. Can be accessed via the intranet under ordersets/pharmacy).

M. When twelve (12) units of PRBCs have been transfused, a six (6) pack of platelets will be given. One (1) platelet pheresis or a six (6) pack of platelets will be given after every twelve (12) units of PRBCs.

N. Four (4) units of FFP will be given after every six (6) units of PRBCs and every six (6) units thereafter.

O. The nurse in charge of the patient is responsible for communicating any PT/PTT or coagulation results to the trauma surgeon in charge of the case IMMEDIATELY.

P. TNS, ED, ICU and/or Surgery are responsible for completing and returning any emergency blood request forms that have been issued with the blood.

Q. The massive blood resuscitation protocol can be stopped at any time by calling the Blood Bank.

*** Further blood product administration will be based on most current laboratory values at the trauma physician's discretion.**

***In the case of a shortage of O neg. blood, O pos. may be substituted for adult male patients or adult females over the age of 50.**

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Medical Director	Approval/Date
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References:

http://www.cbbsweb.org/enf/tx_massive_protocol.html