

# **Massive Hemorrhage Protocol**

# **Activate Massive Hemorrhage Protocol if:**

- · anticipated need for transfusion of 3 or more RBC units in 1 hour with ongoing need
- · penetrating mechanism
- · shock index <1 (SBP/HR)
- · positive FAST exam

### **To Activate Massive Hemorrhage Protocol:**

- 1. Dial 55: state "Transfusion 25" and location
- 2. Fill out **Request of Massive Hemorrhage Protocol** form
  - a. Fax completed form to Blood Bank.

The Blood Bank will not prepare blood until above step is complete.

- b. Call Blood Bank to confirm receipt of fax
- 3. Assign Transfusion Liaison to complete checklist

#### **Initial Goals:**

- 1. Reverse anticoagulation
- 2. Early consultation (ICU, surgery, IR, endoscopy)

First transfusion pack ready 15 minutes after fax received.

#### 4 units red blood cells (Red Cooler)

Second transfusion pack ready 45 minutes after fax received.

## 1L plasma (Blue Cooler)

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Third transfusion pack ready 60 minutes after fax received.

4 units red blood cells (Red Cooler)

1L plasma (Blue Cooler)

1 dose platelets (in a bag tied to one cooler)

Fourth transfusion pack ready 120 minutes after fax received.

Subsequent transfusion packs with the same contents arrive every 60 minutes.

4 units red blood cells (Red Cooler)

1L plasma (Blue Cooler)

1 dose platelets (in a bag tied to one cooler)

#### **Hemostatic Resuscitation Goals**

**Red Cells:** Goal Hgb 70-90 g/L

Platelets: Goal >50 (>100 if intra-cranial or intra-ocular bleeding), consider transfusion if platelet dysfunction suspected

(patient on Plavix, glycoprotein Ilb/Illa inhibitors or post cardiopulmonary bypass)

**Plasma:** Goal INR <1.4. Consider additional plasma if patient weight >70kg (appropriate dose 12-15ml/kg)

Fibrinogen: Goal >1.5q/L (2.0q/L for Obstetric patient). Consider empiric treatment with Fibrinogen for Pre-

eclampsia/eclampsia, DIC, placental abruption, AFE, HELLP, uterine rupture

Calcium: Goal Corrected Calcium <2.1 mmol/L or ionic Calcium >1.15 mmol/L. Suggest 1g Calcium Chloride via

CVL or 2g Calcium Gluconate via peripheral or central IV over 5 minutes

Tranexamic Acid: Consider early use in trauma patients. 1g bolus followed by 125 mg/hr x 8 hrs



# Massive Hemorrhage Package Contents

Form Title	Form Number	Quantity
Massive Hemorrhage Protocol Checklist / Debrief	7102-9118-8	1
Canadian Blood Services CM077 Fax notification for Requesting Crossmatched Red Cells/Platelets/Blood Groups	SAP # 220583	1
Canadian Blood Services Request for Pre Transfusion Testing	SAP # 318008	1
Request for Release of Massive Hemorrhage Protocol - SBH	F160-INV-34B	1
Hospital Biochemistry / Hematology Test Requisition	SAP # 351517	4
Cumulative Blood Product Record (CBPR)	SAP # 340712	1
"Massive Hemorrhage" stickers	NSO160B	1 sheet
Red " Massive Hemorrhage" slip for pneumatic tube insert	NSO1620D	5