Obstetric Hemorrhage Protocol

Complete all steps in prior stages plus current stage regardless of stage in which the patient presents.

Postpartum hemorrhage is defined as cumulative blood loss of greater than or equal to 1,000mL or blood loss accompanied by signs or symptoms of hypovolemia within 24 hours. However, blood loss >500mL in a vaginal delivery is abnormal, and should be investigated and managed as outlined in Stage 1.

Recognition:

- ☐ Call for assistance (Charge RN, Attending, R4, baby nurse)

Designate: ☐ Team leader _____ ☐ Checklist reader/recorder ☐ Primary RN

Announce: ☐ Cumulative blood loss ☐ Vital signs ☐ Determine stage

Stage 1: Blood loss >1000mL after delivery with normal vital signs and lab values. Vaginal delivery 500-999mL should be treated as in Stage 1.

Initial Steps:

- ☐ Ensure 16G or 18G IV Access
- ☐ Increase IV fluid (crystalloid without oxytocin)
- ☐ Insert indwelling urinary catheter
- ☐ Fundal massage

Medications:

- ☐ Ensure appropriate medications given patient history
- ☐ Increase oxytocin, additional uterotonics, consider TXA

Blood Bank:

- ☐ Confirm active type and screen and consider crossmatch of 2 units PRBCs

Action:

- ☐ Determine etiology and treat
- ☐ Prepare OR, if clinically indicated (optimize visualization/examination)
- ☐ Hemorrhage cart to the room

Oxytocin (Pitocin):
30 units/ 500 ml bag

Methylergonovine (Methergine):
0.2 milligrams IM (may repeat);
Avoid with hypertension

15-methyl PGF$_2\alpha$ (Hemabate, Carboprost):
250 micrograms IM (may repeat in q15 minutes, maximum 8 doses); **Avoid with asthma**

Misoprostol (Cytotec):
800 micrograms PO or 800 micrograms SL

Tranexamic Acid (TXA) 1 gram IV over 10 min (add 1 gram vial to 100mL NS & give over 10 min; may be repeated once after 30 min)

Tone (i.e., atony)
Trauma (i.e., laceration)
Tissue (i.e., retained products)
Thrombin (i.e., coagulation dysfunction)

Stage 2: Continued Bleeding (EBL up to 1500mL OR > 2 uterotonics) with normal vital signs and lab values

Initial Steps:

- ☐ Mobilize additional help – OB STAT page
- ☐ Place 2nd IV (16-18G)
- ☐ Draw STAT labs (CBC, Coags, Fibrinogen)
- ☐ Prepare OR

Medications:

- ☐ Continue Stage 1 medications; TXA if not given already

Tranexamic Acid (TXA) 1 gram IV over 10 min (add 1 gram vial to 100mL NS & give over 10 min; may be repeated once after 30 min)

Blood Bank:

- ☐ 2 units PRBCs (DO NOT wait for labs. Transfuse per clinical signs/symptoms) – send designee
- ☐ Thaw 2 units FFP
- ☐ Send designee to blood band

Action:

- ☐ For uterine atony --> consider uterine balloon, possible surgical interventions
- ☐ Consider moving patient to OR
- ☐ Escalate therapy with goal of hemostasis

Possible interventions:
- Bakri balloon
- Compression suture/B-Lynch suture
- Uterine artery ligation
- Hysterectomy

Huddle and move to Stage 3 if continued blood loss and/or abnormal VS

Stage 3: Continued Bleeding (EBL > 1500mL OR > 2 RBCs given OR at risk for occult bleeding/ coagulopathy OR any patient with abnormal vital signs/labs/oliguria)

Initial Steps:

- ☐ Mobilize additional help – ICU, gyn onc
- ☐ Move to OR (if not there already)
- ☐ Announce clinical status (vital signs, cumulative blood loss, etiology)
- ☐ Outline and communicate plan

Medications:

- ☐ Continue medications, consider additional dose of TXA

Blood Bank:

- ☐ Initiate Massive Transfusion Protocol

Action:

- ☐ Achieve hemostasis, intervention based on etiology
- ☐ Escalate interventions

Oxytocin (Pitocin):
20 units/ 500 ml

Methylergonovine (Methergine):
0.2 milligrams IM (may repeat);
Avoid with hypertension

15-methyl $PGF_2\alpha$ (Hemabate, Carboprost):
250 micrograms IM (may repeat in q15 minutes, maximum 8 doses) **Avoid with asthma**

Misoprostol (Cytotec):
800 micrograms PO or 800 micrograms SL

Tranexamic Acid (TXA) 1 gram IV over 10 min (add 1 gram vial to 100mL NS & give over 10 min; may be repeated once after 30 min)

Possible interventions:

- Bakri balloon
- Compression suture/B-Lynch suture
- Uterine artery ligation
- Hysterectomy

Stage 4: Cardiovascular Collapse (massive hemorrhage, profound hypovolemic shock, or amniotic fluid embolism)

Initial Step:

- ☐ Mobilize additional resources

Medications:

- ☐ ACLS

Blood Bank:

- ☐ Simultaneous aggressive massive transfusion

Action:

- ☐ Immediate surgical intervention to ensure hemostasis (hysterectomy)

Post-Hemorrhage Management

- Determine disposition of patient
- **Debrief with the whole obstetric care team**
- Debrief with patient and family
- Document

Adapted from Safe Motherhood Initiative, ACOG (2019)

Revised September 2021 for UCMC
Reaffirmed August 2022

Safe Motherhood Initiative ACOG District II

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