OB Postpartum Hemorrhage Protocol

SUPPORTIVE DATA:

1. Postpartum hemorrhage (PPH) typically occurs within the first 24 hours after delivery but can also occur between 24 hours and 12 weeks postpartum.
2. Postpartum hemorrhage (early) is traditionally defined as an estimated blood loss (EBL) more than 1000 mL during the first 24 hours regardless of mode of delivery.
3. Delayed, or secondary, PPH is excessive bleeding from 24hours after delivery up to 12 weeks post-partum. Delayed PPH may have different causes than immediate PPH, the initial management is similar.
4. Predisposing factors to uterine atony are prolonged labor, precipitous labor, retained placental products, chorioamnionitis, oxytocin use during labor, preeclampsia / eclampsia, uterine over distention (multiple gestation, macrosomia, and hydramnios), certain anesthesia and those patients with a history of uterine atony with a previous pregnancy, and magnesium sulfate administration.

Definitions

Post-Partum Hemorrhage Risk Factors

Low Risk

- No previous uterine incision
- Singleton pregnancy
- Less than or equal to 4 previous vaginal births
- No known bleeding disorders
- No history of postpartum hemorrhage

Medium Risk:

- Induction of labor (with oxytocin) or Cervical ripening
- Prior cesarean birth(s) or uterine surgery
- Multiple gestations
- Greater than 4 previous vaginal births
- Chorionamnionitis
- History of previous postpartum hemorrhage
- Large uterine fibroids
- Family history in first degree relative who experienced PPH
- Fetal demise
- Polyhydramnios

High Risk:

- Placenta previa, low lying placenta
- Has 2 or more medium risk factors
- Suspected Placenta accrete or percreta
- Hematocrit less than 30 AND other risk factors
- Platelets less than 100,000
- Active bleeding (greater than show) on admit
- Known coagulopathy
- History of more than one previous PPH

PROTOCOL

A. **Prevention and Recognition of Hemorrhage**

i. Review IV access, CBC, and Type and Screen
ii. Post-Partum Transport: Assess for risk factors for post-partum hemorrhage: Prolonged 2nd stage, Prolonged oxytocin use, Active bleeding, Chorioamnionitis, and Magnesium sulfate treatment.
iii. At the time of delivery,
    i. **Oxytocin [PARA]**
        a. 5-10 unit bolus followed by 10 units/hr, max 40 units
        b. No IV access present, Oxytocin 10 Units IM
iv. If cumulative blood loss is>500ml for vaginal birth or >1000ml for Cesarean birth, OR VS>15% change or HR>110, BP <85/45, O2 sat<95% or increased bleeding during recovery or postpartum, proceed to **Preparation/Initial Treatment**

B. **Preparation/Initial Treatment**

Indication: Cumulative blood loss>500ml vaginal birth; 1000ml C-Section or VS>15% change or HR>110, BP <85/45, O2 saturation<95% or increased bleeding during recovery or Postpartum period.

i. Administer oxygen to maintain 02 saturations at >95%
ii. Keep patient warm
iii. Monitor and record O2 sat & level of consciousness (LOC) q 5 minutes.
iv. Initiate or increase IV fluid rate [AEMT]
v. **Tranexamic Acid [PARA]**: 1g IV/IO over 10 minutes
    i. If bleeding continues after 30 minutes: Repeat 1g IV/IO over 10 minutes
vi. **Oxytocin [PARA/Inter-facility**]
    i. Continue or increase oxytocin infusion rate in consultation with Medical Control
vii. Ensure empty bladder
    i. Foley indwelling catheter with urometer **[Critical Care]**
viii. Ensure PRBC available
ix. Consider needed additional Uterotonic Agents
x. Etiology Considerations
    i. Uterine atony, retained products of conception, laceration, or hematoma.
xi. If patient continues bleeding or VS continue to be unstable and cumulative blood loss is more than 1000 ml, proceed to **Advanced Management**.

C. **Advanced Management**

Indication: Continued bleeding or vital sign instability and/or more than 1000ml cumulative blood loss.

i. Additional uterotonic medications as needed**. [Critical Care]:**
    i. **Hemabate** 250mcg IM (if not contraindicated)—can be repeated up to 3 times every 20 minutes
    ii. **Misoprostol** 800-1000 mcg PR
    iii. **Methergine** 0.20 mg IM (if not contraindication)- can be repeated every 2-4 hours
ii. Performs uterine massage
iii. Initiate PRBCs transfusion **[PARA]** based on clinical signs and response See Blood Administration Protocol
iv. Consider requesting **FFP** 2 units(takes 30 minutes); use if transfusing > 2units PRBCs **[PARA/Interfacility]**Consider vasopressors for additional hemodynamic support, See SHOCK Protocol

D. **Post-acute care:**

i. Vital signs (BP, P,RR)
    i. 5-15minutes until stable
    ii. 30minutes x4
    iii. 2 hours x3
    iv. Every 4 hours x24
    v. Temp: q4 hrs
    vi. Fundus/Bleeding: assess with VS (calculate blood loss every 5-15 minutes)

REFERENCES:

National Association of EMS Physicians, American College of Obstetricians and Gynocologists, National Association of Emergency Medical Technicians, The Paramedic Foundation Joint EMS Model Guidelines

Aspirus Wausau Hospital Post Partum Hemorrhage Protocol

California Maternal Quality Care Collaborative (CMQCC): OB Hemorrhage Toolkit (2015).

ACOG/AAP. (2017). Guidelines for Perinatal Care, 8th Ed

ACOG Practice Bulletin: Clinical Management Guidelines for Obstetrician-Gynecologists Number 183, October 2017: postpartum hemorrhage.

AWHONN Postpartum Hemorrhage Risk Assessment Table 1.1 (2017).

POSTPARTUM HEMORRHAGE (PPH) RISK ASSESSMENT TABLE • 1.1