Driver 1: Readiness

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OHI 2.0
Obstetric Hemorrhage Initiative

FPQC

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Obstetric Hemorrhage Initiative

Global Aim: Improve maternal health through hospital-facilitated timely recognition and treatment of obstetric hemorrhage during labor, delivery and the postpartum period.

Primary Key Driver

Readiness: Implementation of standard protocols/processes

Secondary Drivers

- Develop standardized, facility-wide, stage-based OB hemorrhage emergency management plans
- Ensure rapid access to medications and maintain readily available hemorrhage cart or equivalent
- Conduct interprofessional, interdepartmental team-based training and drills to prepare for recognition and treatment of OB hemorrhage
- Implement a process for timely access to supplies, equipment and procedures for QBL documentation and communication at every birth

Respectful care is a universal component of every driver and activity

Develop standardized, facility-wide, stage-based OB hemorrhage emergency management plans

Potentially Better Practices (cont.):

Standardized Protocols

1. **Develop OB hemorrhage protocols with:**
    - Checklists and escalation plans
    - Massive transfusion protocols
    - Communication process with patients/families, including debrief and written info
    - Consent & care protocols for patients who decline blood products
2. **Establish rapid response team co-led by Nursing, OB, and Anesthesia**
3. **Use a digital alert or overheard phrase for OB emergencies to improve team awareness**

Develop standardized, facility-wide, stage-based OB hemorrhage emergency management plans

Potentially Better Practices (cont.):

Facility Readiness

1. **Create policy for:**
    - Facilities without on-site blood bank to ensure O- blood availability
    - Timely OR transfer for Stage 2 or higher hemorrhage
2. **Identify & plan for high-risk patients to transfer to higher-level maternal care**
3. **Establish transfer agreements with nearby facilities equipped for placenta accreta spectrum disorders**

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POSTPARTUM HEMORRHAGE (PPH) RISK ASSESSMENT TABLE • 1.3

CLINICIAN GUIDELINES:

Each box ❑ represents ONE risk factor. Treat patients with 2 or more medium risk factors as high risk. Prenatal risk assessment is beyond the scope of this document, however performing a prenatal hemorrhage risk assessment and planning is highly recommended. Early identification and management preparation for patients with special considerations such as placental previa/accreta, bleeding disorder, or those who decline blood products will assist in better outcomes.
Adjust blood bank orders based on the patient's most recent risk category. When a patient is identified to be at high risk for hemorrhage verify that the blood can be available on the unit within 30 minutes of a medical order.

Plan appropriately for patient and facility factors that may affect how quickly the blood is delivered to the patient. For example,
Patient issues: Pre-existing red cell antibody
Facility issues: Any problems at your facility related to the blood supply and obtaining blood.

RISK CATEGORY: ADMISSION

	Low-Risk	Medium-Risk (2 or More Medium Risk Factors Advance Patient to High-Risk Status)	High-Risk
	❑ No previous uterine incision	❑ gestational age < 37 weeks or > 41 weeks	❑ Has 2 or More Medium Risk Factors
	❑ Singleton pregnancy	❑ Multiple gestation	❑ Suspected abruption or active bleeding more than "bloody show"
	❑ ≤4 Previous births	❑ >4 Previous births	❑ Suspected placenta accreta or percreta
	❑ No known bleeding disorder	❑ Prior cesarean birth or prior uterine incision	❑ Placenta previa, low lying placenta
		❑ Large uterine fibroids	❑ Known coagulopathy
	❑ No history of PPH	❑ History of one previous PPH	❑ History of more than one previous PPH or a severe PPH (>1,500 mL or blood transfusion)
		❑ Hematocrit <30% or hemoglobin <10	❑ Hematocrit ≤21% or 12-point drop to ≤ 25% or hemoglobin <8
		❑ Intraamniotic infection	❑ Platelets <50,000/mm^3
		❑ Platelets 50,000/mm^3 - 100,000/mm^3	❑ Intrauterine fetal demise
		❑ Polyhydramnios	❑ HELLP syndrome
		❑ Pre-eclampsia	

AWHONN POSTPARTUM HEMORRHAGE (PPH) STAGES ALGORITHM V. 1.3

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Primary RN:
- Routine postpartum recovery
- Active management of the 3rd stage
- Administer Oxytocin IV or IM
- Increase surveillance if medium or high PPH risk
- Fundal massage
- Ongoing QBL for ALL births and for 2 hour recovery period
- Determine post-birth risk assessment category
- Report CBL to postpartum nurse assuming care (if applicable)
- Document events and QBL

Blood Bank (Confirm if already ordered):
- Low risk: Clot only (Type & Hold)
- Medium risk: Type & Screen
- High risk: Type & Cross

STAGE O
Blood Loss
≤500 mL regardless of mode of birth

OB Provider:
- Active management of the 3rd stage
  - Oxytocin IV or IM
  - Fundal massage
  - Gentle cord traction
- Determine post-birth risk assessment category and perform the appropriate anticipatory interventions

Bleeding Continued?

NO
- Normal postpartum care
- Increase surveillance if medium or high PPH risk

YES

ADVANCE TO STAGE 1

Primary RN:
- Vital signs (including temp) & Ongoing QBLq 5–15 minutes
- Consider warming blanket and fluid warmer
- Ongoing fundal tone assessment and fundal massage
- O2 via face mask to maintain >95%, apply pulse oximeter
- Notify OB Provider of CBL
- Call for RN assistance
- Ensure hemorrhage cart & supplies near room, and uterotonics at bedside
- Empty bladder/insert indwelling catheter
- Ensure IV access (18g) and Increase IV fluid rate of crystalloid solution (LR or NS)
- Notify anesthesia care provider
- Document events and QBL

Blood Bank:
- Confirm Type & Cross (consider crossmatch of 2 units PRBCs)

STAGE 1
Blood Loss
500 – 999 mL regardless of mode of birth

Obstetric Provider:
- Consider cause: (4T's)

TONE
- Bimanual uterine massage
- Uterotonics
  - Oxytocin 10-30 units per 500mL IV solution over 10-15 min or 10 units IM
  - Methylergonovine 0.2mg IM; Q 2-4 hrs Avoid with HTN
  - Carboprost 0.25mg IM; Q 15-90 min; not to exceed 2mg (8 doses)
  - Avoid with asthma; caution with HTN

If asthmatic & hypertensive, consider
  - Misoprostol 600mcg PO or 800mcg SL; once

TRAUMA
- Assess for laceration: suture
- Assess for hematomas: drain and repair

TISSUE
- Assess for retained products: manual removal, D&C

Bleeding Continued?

NO

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Appendix C: Obstetric Hemorrhage Care Guidelines: Table Format Errata 7.18.22

	Assessments	Meds/Procedures	Blood Bank
Stage 0	**All births**		
• Risk assessment • Active management of 3rd stage	• Prepare for every patient according to hemorrhage risk factors • Measure quantitative cumulative blood loss for every birth	• **Active Management of 3rd Stage** • **Oxytocin** IV infusion or 10u IM	• **Medium Risk:** T&S • **High Risk:** T&C 2 U • **Positive Antibody Screen** (prenatal or current, exclude low level anti-D from RhoGam): T&C 2 U
Stage 1	**Triggers: CBL ≥ 500mL vaginal / ≥ 1000 mL cesarean with *continued bleeding* or Signs of concealed hemorrhage: VS abnormal or trending (HR ≥ 110, BP ≤ 85/45, O2 sat < 95%, shock index 0.9) or Confusion**		
• Activate hemorrhage protocol • Rule out hemorrhage causes besides atony	• Activate OB hemorrhage protocol and checklist • Notify charge nurse, OB/CNM, anesthesiologist • VS, O2 Sat q5 min • Record quantitative cumulative blood loss q5-15 min • Careful inspection with good exposure of vaginal walls, cervix, uterine cavity, placenta. If intra-op, inspect broad ligament, posterior uterus and placenta.	• **IV Access: Minimum 18 gauge** • Increase IV fluid (LR) and **oxytocin** rate • **Fundal/bimanual massage** **MOVE ON** to 2nd level uterotonic if no response (see Stage 2 meds below) • Empty bladder: Straight cath or Foley with urometer	• **Convert to High Risk and take appropriate precautions** Consider T&C 2 Units PRBCs *where clinically appropriate if not already done*

Ensure rapid access to medications and maintain readily available hemorrhage cart or equivalent

Potentially Better Practices:

1. **Standardized Protocols**
    - Facility-wide OB hemorrhage policies with checklists & escalation plans
    - Rapid response team (OB, Nursing, Anesthesia)
    - Patient/family communication & consent plans (including blood declination)
2. **Supplies & Medications**
    - Hemorrhage cart with supplies & device instructions
    - 1st & 2nd line meds available in OB units, OR, & ED
    - Massive transfusion protocol in place

Resource Examples

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Appendix E: Checklist: Carts, Kits and Trays

OB Hemorrhage Cart: Recommended Supplies

- IV start supplies
- Angiocaths
- IV tubing
- IV extension set
- Blood product transfusion tubing
- Blood warmer tubing
- Urinary catheter kit with urometer
- Flashlight
- Lubricating jelly
- Assorted sizes sterile gloves
- Lab tubes: CBC, coagulation studies, etc.
- Venipuncture supplies
- Pressure infuser bags
- Chux
- Syringes
- Needles
- Tegaderm
- 2x2 gauze
- Adhesive bandages
- Alcohol swabs
- Paper tape
- Cloth tape
- Manual BP cuff
- Stethoscope
- Povidone iodine
- Personal Protection Equipment (PPE)
- Operating room towels
- Sterile speculum

AdventHealth Tampa Sample Cart

Conduct interprofessional, interdepartmental team-based training and drills to prepare for recognition and treatment of OB hemorrhage

Potentially Better Practices: **Ensure that regular PPH simulations are held**

- On all shifts for all OB team members (including anesthesia, blood bank, and support departments)
- Test all parts of the system
- Incorporate standardized protocols, tools, & checklists
- Include QBL simulation
- Include use of cart and obtaining medications with use of stage-based algorithm and activation of rapid-response team
- Simulate appropriate patient & family communication (RMC)
- Utilize Team Debrief Form to identify opportunities/gaps

Resource Examples

- AIM Learning Modules
- AWHONN Team Debrief Form
- AHRQ TeamSTEPPS Rapid Response Module
- CMQCC Sample Script Provider & Patient PPH Post-Event Debrief

TeamSTEPPS®
Team Strategies & Tools to Enhance Performance & Patient Safety

TeamSTEPPS Diagnosis Improvement Course
Get to know TeamSTEPPS for Diagnosis Improvement and how the TeamSTEPPS framework can be applied to the specific problem of diagnostic error.

Welcome to TeamSTEPPS 3.0
Get to know TeamSTEPPS 3.0 and the welcome guides.

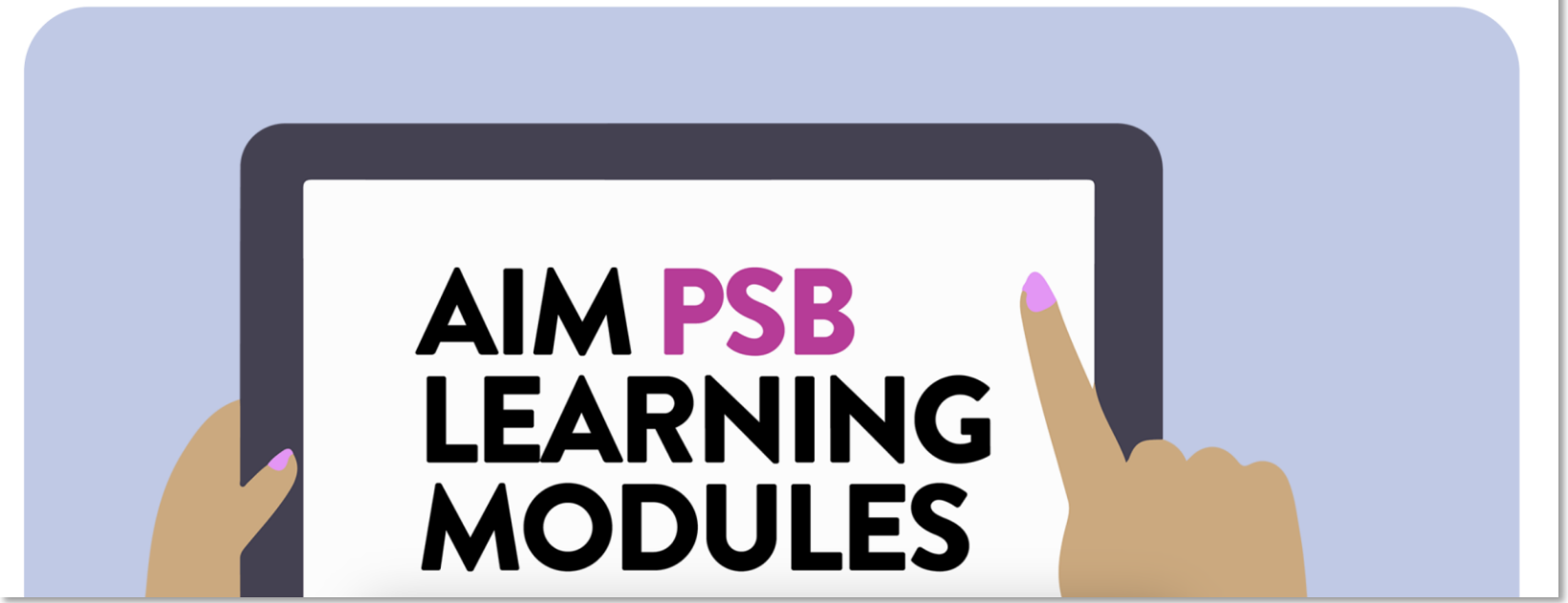
AHRQ

AIM

AIM PATIENT SAFETY BUNDLE LEARNING MODULES

Each course features a comprehensive overview of an AIM Patient Safety bundle and its key elements.
Click below to learn more!

Learning Modules Overview ▸



Team Debriefing Form

Person Completing Form:	Title:	Date of Emergency/Drill:

Staff who Participated in the Emergency/Drill

Staff Name	Role	Staff Name	Role

Time Clinical Emergency/Scenario Commenced:	Time Clinical Emergency/Scenario Concluded:	Length of T

Type of Clinical Emergency/Drill:	Recognition	Readiness
Obstetrical/Neonatal Emergency: ☐ Code Blue ☐ ED/OB Trauma ☐ ED/OB/OR Trauma ☐ Emergency airway (Neonatal) ☐ Neonatal Resuscitation ☐ Postpartum Hemorrhage ☐ Prolapsed Cord ☐ Sepsis (maternal) ☐ Shoulder Dystocia ☐ Uterine Rupture ☐ Malignant hyperthermia ☐ Anaphylactoid syndrome of	☐ Was there prompt recognition of the emergency/drill (Code blue/Pink called)? **Hemorrhage** ☐ PPH risk assessments performed per protocol? **HTN** ☐ Elevated BP confirmed with manual cuff? **Sepsis**	☐ Wa uni ☐ Wa ale ☐ Did kno and ☐ Did the ☐ Wa wo

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Appendix AA: Sample Script: Provider - Patient Postpartum Hemorrhage Post-Event Discussion

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When discussing a traumatic event with patients and families, it is helpful to consider the following components in formulating a plan for debriefing with the patient.

Initial patient family meeting (after the event):

- Review clinical course (treatments/ procedures)
- Clarify facts
- Include patient and patient approved support persons
- Discuss the healthcare providers who were involved
- Utilize skilled communicators/interpreters as appropriate
- Decide who will lead the discussion

Plan what to say:

- Manage your emotions
- Acknowledge something unexpected and untoward has occurred
- Express regret and concern
- Listen to the family/patient respond to their needs/questions
- Address next steps
- Clearly delineate the contact person(s) for the family and when they can expect a follow-up discussion

Implement a process for timely access to supplies, equipment and procedures for QBL documentation and communication at every birth

Potentially Better Practices:

1. **QBL Assessment**: Perform cumulative QBL throughout PP phase in all care settings.
2. **QBL Lead & Stage-Based Algorithms**: Assign a QBL lead for each birth/hemorrhage event. Pair QBL totals with stage-based algorithms and trigger rapid-response teams when thresholds are met.
3. **Real-Time Updates**: Provide real-time QBL updates to the team at every birth and ensure QBL begins after accounting for amniotic fluid. Track irrigation fluids for accurate QBL calculation.
4. **Room Preparation & Tools**: Ensure calibrated drapes, scales, and calculation tools (e.g., laminated dry weights, apps) are available and used at every birth.
5. **EHR Alerts**: Utilize QBL alerts in the Electronic Health Record (EHR) when available.

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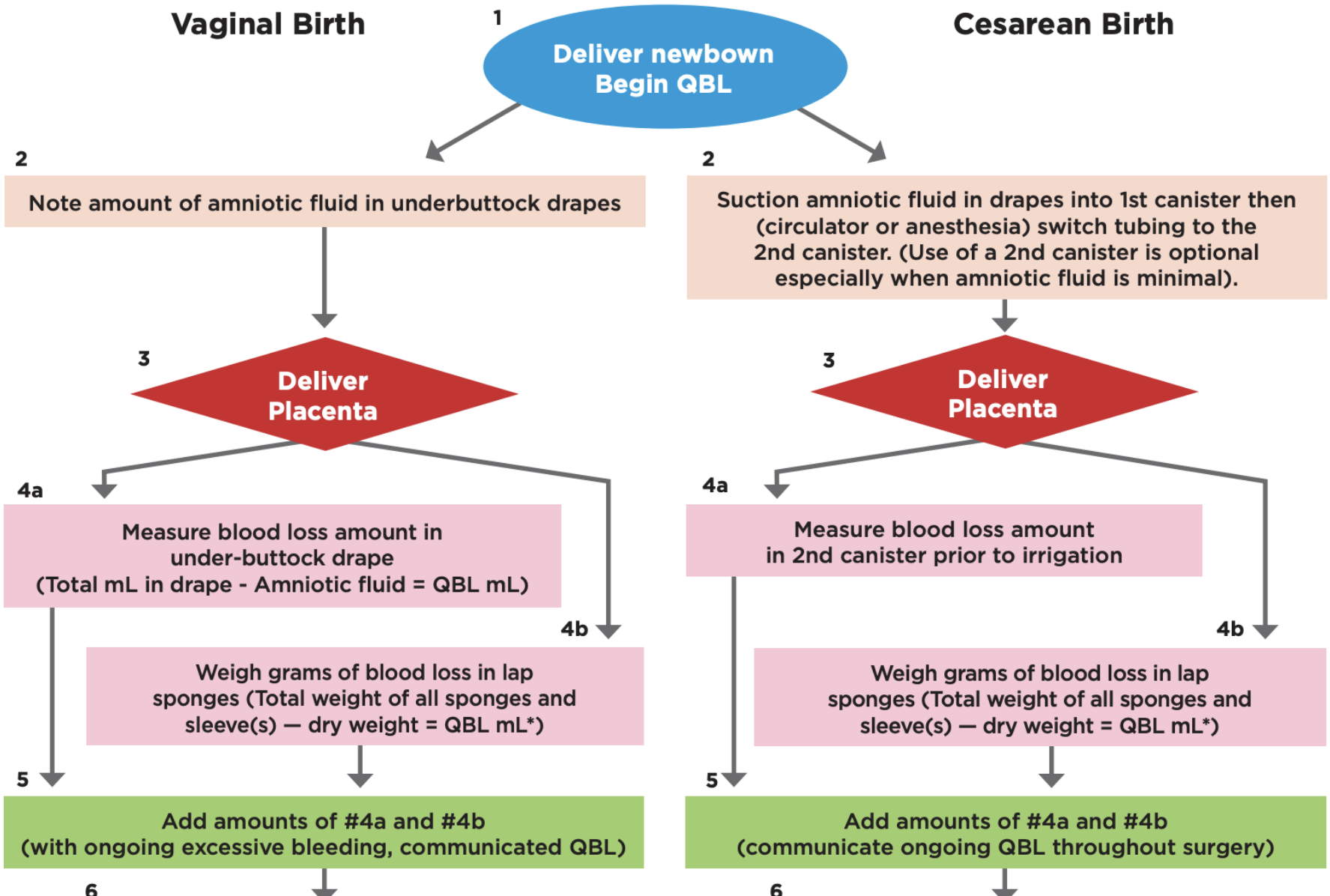
QUANTIFICATION OF BLOOD LOSS (QBL) PROCESS MAP



Any Questions?