Post partum Hemorrhage: Best Practices to Reduce Health Disparities

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Objectives

Improving Patient Outcomes

- Promote equal access of evidence –based care practices
- Discuss effective implementation strategies and tactics to improve clinician practice through Awhonn PPH project, OPS course.
- Review best practice recommendations for TXA use in the OB patient in response to Postpartum Hemorrhage (PPH)
- Discuss how to access resources and implement changes in your institution

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Magnitude of the Problem

- Each year approximately 125, 000 women in the U.S. experience postpartum hemorrhage, its leading cause of **PREVENTABLE** death (Awhonn, 2014)
- Every year there are 14 million cases of postpartum hemorrhage worldwide (USAID, 2010)
- Estimated that 90% of PPH occurs within 4 hours after delivery.

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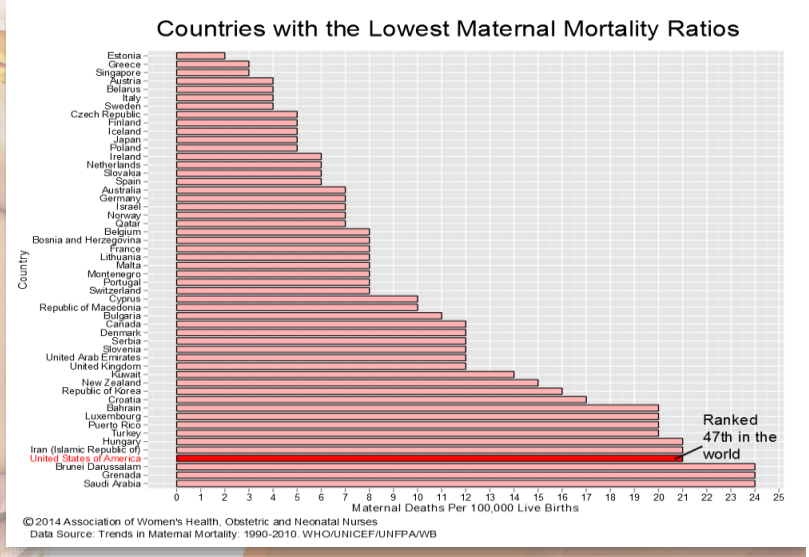

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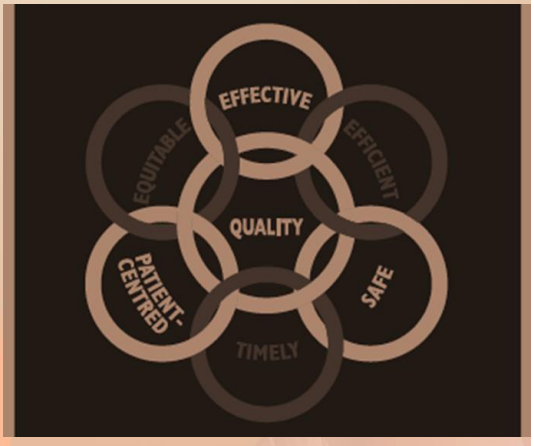
Standardization

- PATIENT SAFETY
- RISK REDUCTION
- SAFE CLINICAL OUTCOMES

Processes

- ORDER SETS
- PROTOCOLS
- EDUCATION, PATIENT TEACHING
  - DISPARITIES



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COUNCIL ON PATIENT SAFETY IN WOMEN'S HEALTH CARE
safe health care for every woman

PATIENT SAFETY BUNDLE

Reduction Racial/Eth

READINESS

Every health system

- Establish systems to accurately document self-identified race, ethnicity, and primary language.
  - Provide system-wide staff education and training on how to ask demographic intake questions.
  - Ensure that patients understand why race, ethnicity, and language data are being collected.
  - Ensure that race, ethnicity, and language data are accessible in the electronic

and episodes of miscommunication or disrespect.

Detecting

Define health disparities

Define vulnerable populations

Measure disparities in vulnerable populations

Consider selection effects and confounding factors

Understanding

Identifying determinants of health disparities at the following levels:

Patient/individual
Provider
Clinical encounter
Health care system

Reducing

Intervene

Evaluate

Translate and disseminate

Change policy

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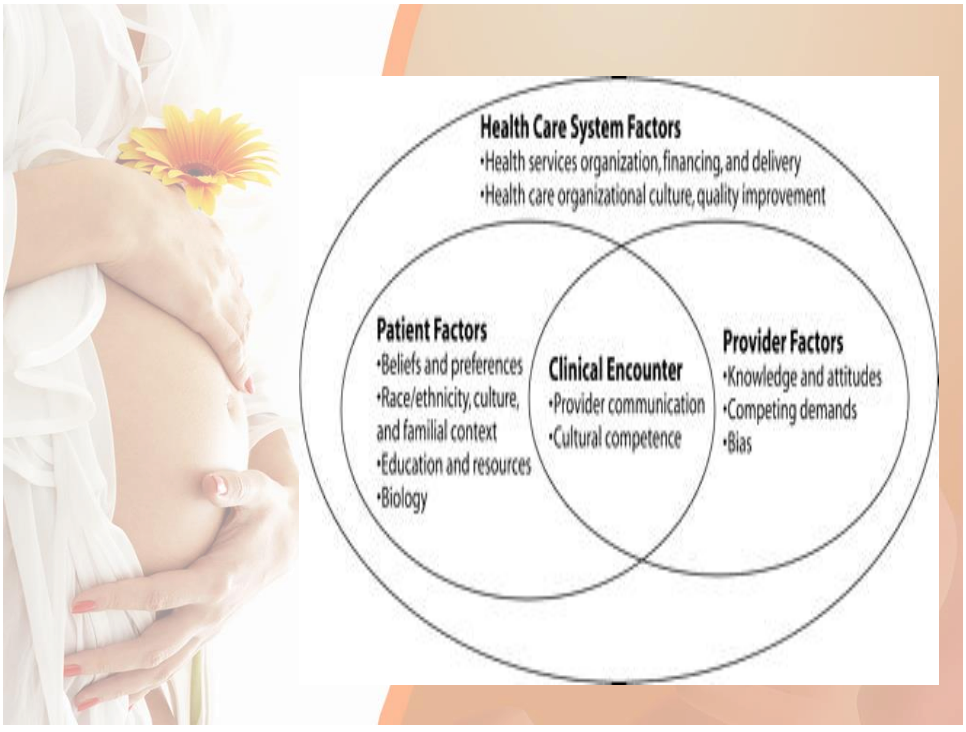
Health Care System Factors
•Health services organization, financing, and delivery
•Health care organizational culture, quality improvement
Patient Factors
•Beliefs and preferences
•Race/ethnicity, culture, and familial context
•Education and resources
•Biology
Clinical Encounter
•Provider communication
•Cultural competence
Provider Factors
•Knowledge and attitudes
•Competing demands
•Bias

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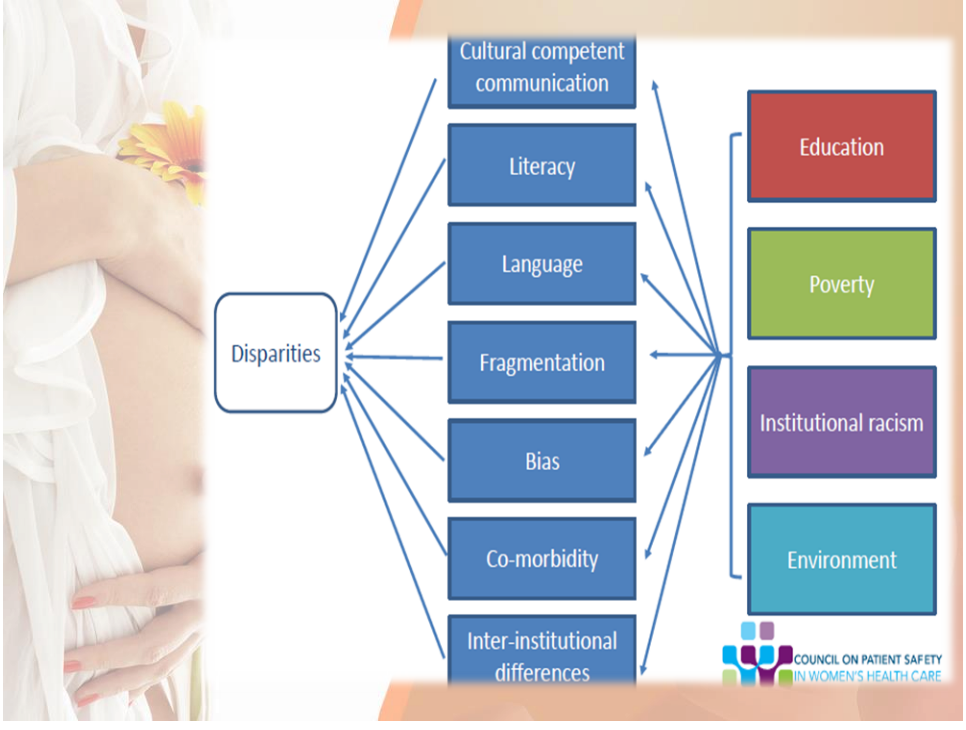
Disparities
Cultural competent communication
Literacy
Language
Fragmentation
Bias
Co-morbidity
Inter-institutional differences
Education
Poverty
Institutional racism
Environment
COUNCIL ON PATIENT SAFETY IN WOMEN'S HEALTH CARE

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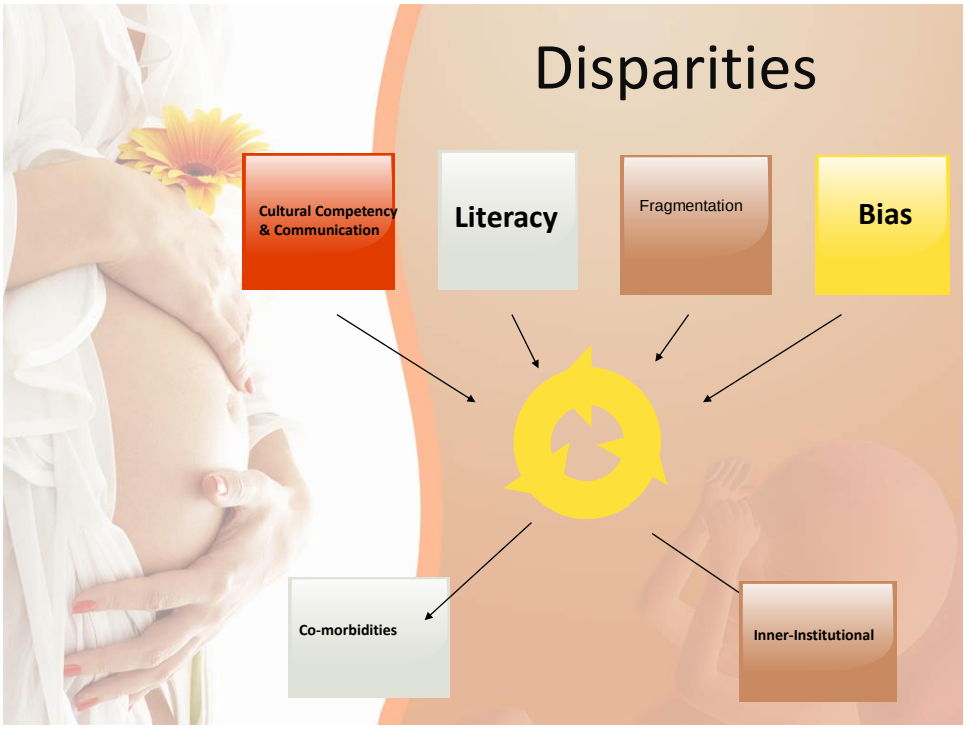
Disparities



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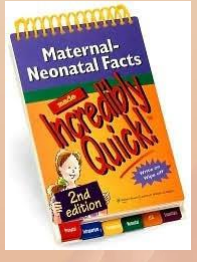
Cultural Competency: Consider the Source

- Cultural diversity officer
- Text books : Are they current? Who was their source for obtaining the information?
- Internet searches: Are you using a reproable website?
- Breast pump rental example



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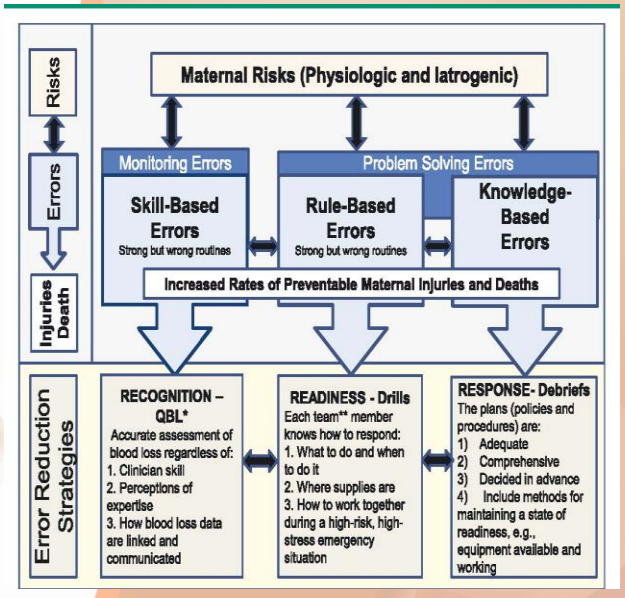
JOGNN

IN FOCUS

CNE

Continuing Nursing Education (CNE) Credit
A total of one contact hour may be earned as CNE credit for reading "Applying the Generic Errors Modeling System to Obstetric Hemorrhage Quality Improvement Efforts", and for completing an online post-test and evaluation.

Applying the Generic Errors Modeling System to Obstetric Hemorrhage Quality Improvement Efforts



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AWHONN PPH Project Goals

- Goal 1: Promote equal access of evidence-based care practices
- Goal 2: Support effective implementation strategies
  - **Recognition - Readiness - Response**
- Goal 3: Identify facilitators and barriers to making improvements and disseminate lessons learned

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AWHONN PPH Project Regional Leaders

Robyn D'Oria MA, RNC, APN

Executive Director | Central Jersey Family Health Consortium

Catherine Ruhl, MS, CNM

Director of Women's Health Programs | AWHONN

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Clinical Nurse Specialist | Wellstar Kennestone Hospital

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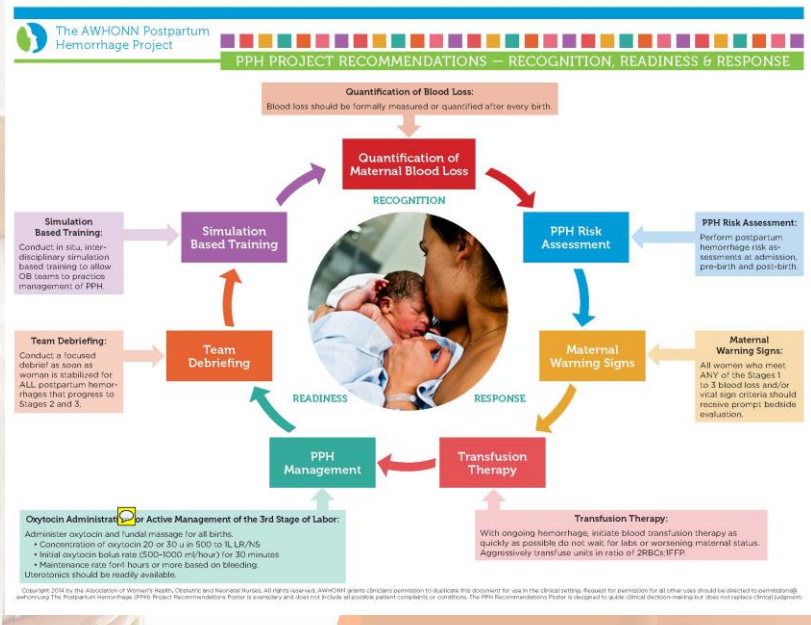

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Examples of Data Collection

Outcome Measures

- ICU Admissions
- Blood transfusions

Structure Measures

- Develop Policies and Procedures
- Education, Drills, Debriefs

Process Measures

- 3 Risk Assessments (Admission, Pre-birth, Post-birth)
- Quantification of Blood Loss

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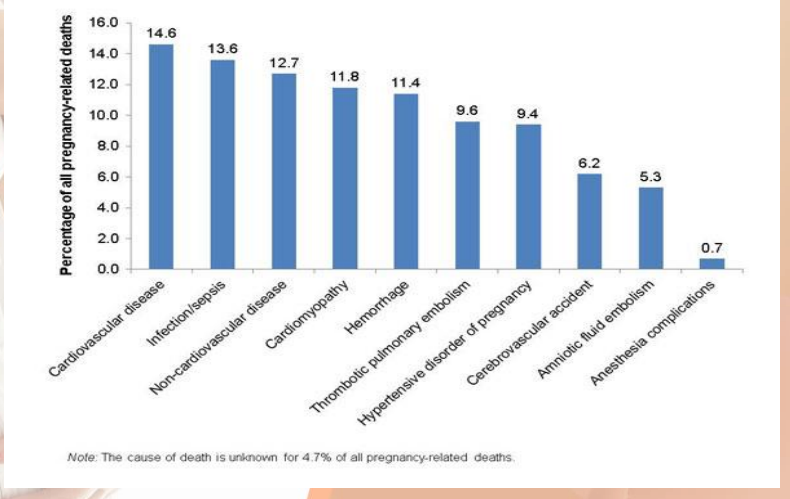
Causes of pregnancy-related death in the United States: 2006–2010



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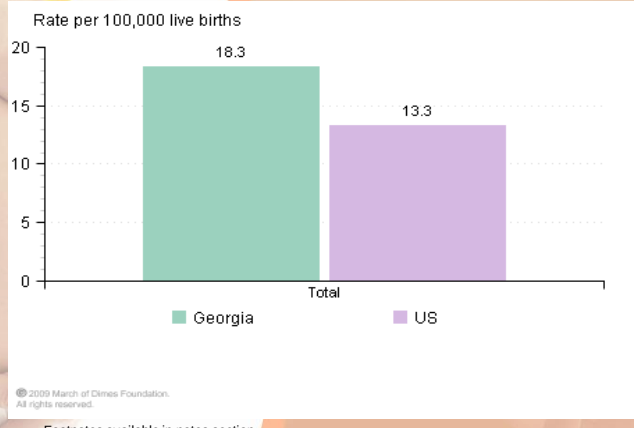
Maternal mortality rates

Georgia and US, 2003-2007 Average

- Georgia (GA) 20.5 per 100,000 Ranks 50th
- 88 Birthing Hospitals



Footnotes available in notes section.
Source: National Center for Health Statistics, final mortality data; National Center for Health Statistics, final natality data. Retrieved January 29, 2014, from www.marchofdimes.com/peristats.

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Recognition

- Tracking PPH to discuss in OB department meetings, Women's Safety & Quality Meeting
  - Charge nurses fill out event reporting record so that everyone in leadership would receive notification of the event.
  - Excel sheet with pertinent logistics about our PPH.
    - Trying to determine any identifying factors such as: OB practice, time of event, time of transfer, type of delivery

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Recognition

- Developed MOH scoring tool
  - Scored on admission and every shift for changes
- MOH scoring tool- High Risk Patients
  - **PINK** banner bar for better identification/recognition for all team members taking care of the patient.
  - White boards – pink rose

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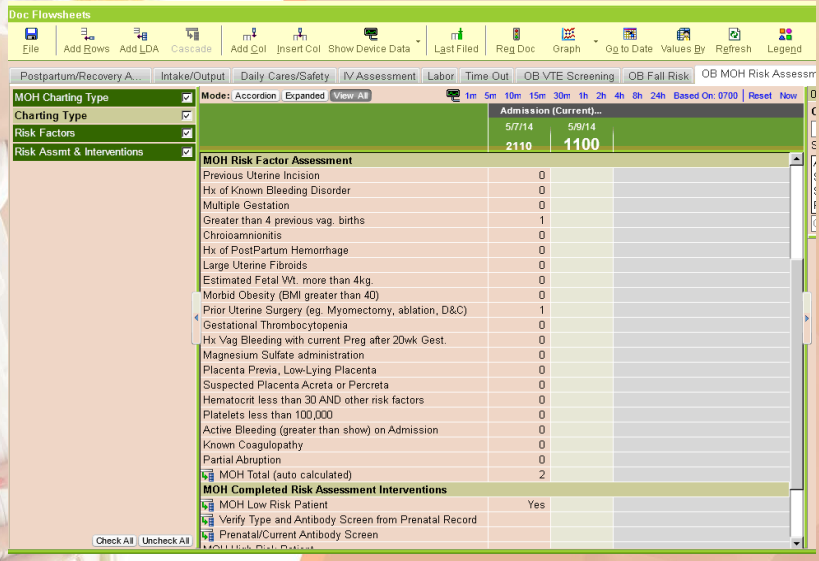
MOH Risk Assessment Scoring Tool



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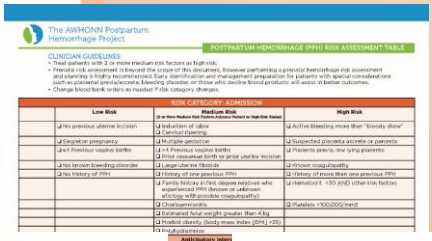
Current Awhonn PPH Project Recommendations

- Admission
- Pre-birth
- Post- birth


The AWHONN Postpartum Hemorrhage Project

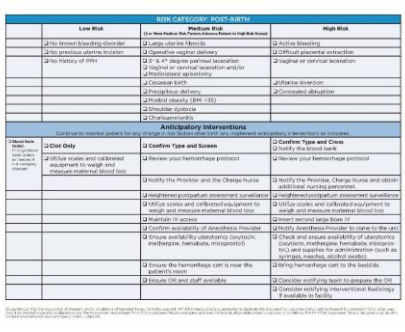
POSTPARTUM HEMORRHAGE (PPH) RISK ASSESSMENT TABLE

CLINICIAN GUIDELINES:

- 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.
- Change blood bank orders as needed if risk category changes.

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	☐ Induction of labor ☐ Cervical ripening	☐ Active bleeding more than "bloody show"
☐ Singleton pregnancy	☐ Multiple gestation	☐ Suspected placenta accrete or percreta
☐ 0 Previous vaginal births	☐ ≥4 Previous vaginal births	☐ Placenta previa, low lying placenta
☐ No known bleeding disorder	☐ Prior cesarean birth or prior uterine incision	☐ Known coagulopathy
☐ No history of PPH	☐ Large uterine fibroids	☐ History of more than one previous PPH
	☐ History of one previous PPH	☐ Hematocrit <30 AND other risk factors
	☐ Family history in first degree relatives who experienced PPH (known or unknown etiology with possible coagulopathy)	☐ Platelets <100,000/mm3
	☐ Chorioamnionitis	
	☐ Estimated fetal weight greater than 4 kg	
	☐ Morbid obesity (body mass index (BMI) >35)	
	☐ Preeclampsia/eclampsia	

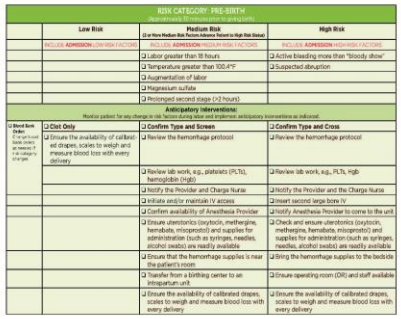

RISK CATEGORY: POST-BIRTH

Low Risk	Medium Risk (2 or More Medium Risk Factors Advance Patient to High Risk Status)	High Risk
☐ No known bleeding disorder	☐ Large uterine fibroids	☐ Active bleeding
☐ No previous uterine incision	☐ Operative vaginal delivery	☐ Difficult placental extraction
☐ No history of PPH	☐ 3rd & 4th degree perineal laceration ☐ Extensive lateral laceration and/or ☐ Repaired or episiotomy	☐ Vaginal or cervical laceration
	☐ Cesarean birth	☐ Uterine inversion
	☐ Precipitous delivery	☐ Concealed abruption
	☐ Morbid obesity (BMI >35)	
	☐ Shoulder dystocia	
	☐ Chorioamnionitis	

Anticipatory interventions

Continue to monitor patient for any change in risk factors after birth and implement anticipatory interventions as indicated.

☐ Blood Bank Order: If not on blood bank orders at release if risk category changes	☐ Clot Only	☐ Confirm Type and Screen	☐ Confirm Type and Cross
	☐ Utilize scales and calibrated equipment to weigh and measure maternal blood loss:	☐ Review your hemorrhage protocol	☐ Notify the blood bank ☐ Review your hemorrhage protocol
		☐ Notify the Provider and the Charge Nurse	☐ Notify the Provider, Charge Nurse and obtain additional nursing personnel
		☐ Heightened postpartum assessment surveillance	☐ Heightened postpartum assessment surveillance
		☐ Utilize scales and calibrated equipment to weigh and measure maternal blood loss	☐ Utilize scales and calibrated equipment to weigh and measure maternal blood loss
		☐ Maintain IV access	☐ Insert second large bore IV
		☐ Confirm availability of Anesthesia Provider	☐ Notify Anesthesia Provider to come to the unit
		☐ Ensure availability uterotonics (oxytocin, methergine, hemabate, misoprostol)	☐ Check and ensure availability of uterotonics (oxytocin, methergine, hemabate, misoprostol) and supplies for administration (such as syringes, needles, alcohol swabs) are readily available
		☐ Ensure the hemorrhage cart is near the patient's room	☐ Bring hemorrhage cart to the bedside
		☐ Ensure OR and staff available	☐ Consider notifying team to prepare the OR
			☐ Consider notifying interventional Radiology if available in facility


RISK CATEGORY: PRE-BIRTH

(Recommended ID measurement is g/dL)

Low Risk	Medium Risk (2 or More Medium Risk Factors Advance Patient to High Risk Status)	High Risk
INCLUDE ADMISSION LOW RISK FACTORS	INCLUDE ADMISSION MEDIUM RISK FACTORS	INCLUDE ADMISSION HIGH RISK FACTORS
	☐ Labor greater than 18 hours	☐ Active bleeding more than "bloody show"
	☐ Temperature greater than 100.4°F	☐ Suspected abruption
	☐ Augmentation of labor	
	☐ Magnesium sulfate	
	☐ Prolonged second stage (>2 hours)	

Anticipatory interventions:

Monitor patient for any change in risk factors during labor and implement anticipatory interventions as indicated.

☐ Blood Bank Order: If not on blood bank orders at release if risk category changes	☐ Clot Only	☐ Confirm Type and Screen	☐ Confirm Type and Cross
	☐ Ensure the availability of calibrated drapes, scales to weigh and measure blood loss with every delivery	☐ Review the hemorrhage protocol	☐ Review the hemorrhage protocol
		☐ Review lab work, e.g., platelets (PLTs), hemoglobin (Hgb)	☐ Review lab work, e.g., PLTs, Hgb
		☐ Notify the Provider and Charge Nurse	☐ Notify the Provider and the Charge Nurse
		☐ Initiate and/or maintain IV access	☐ Insert second large bore IV
		☐ Confirm availability of Anesthesia Provider	☐ Notify Anesthesia Provider to come to the unit
		☐ Ensure uterotonics (oxytocin, methergine, hemabate, misoprostol) and supplies for administration (such as syringes, needles, alcohol swabs) are readily available	☐ Check and ensure uterotonics (oxytocin, methergine, hemabate, misoprostol) and supplies for administration (such as syringes, needles, alcohol swabs) are readily available
		☐ Ensure that the hemorrhage supplies is near the patient's room	☐ Bring the hemorrhage supplies to the bedside
		☐ Transfer from a birthing center to an intrapartum unit	☐ Ensure operating room (OR) and staff available
		☐ Ensure the availability of calibrated drapes, scales to weigh and measure blood loss with every delivery	☐ Ensure the availability of calibrated drapes, scales to weigh and measure blood loss with every delivery

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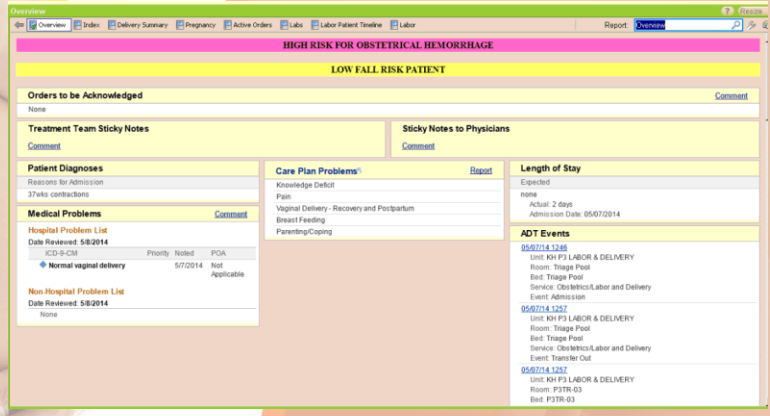
Recognition

High Risk Banner


Overview

Overview | Index | Delivery Summary | Pregnancy | Active Orders | Labs | Labor Patient Timeline | Labor | Report: Overview

HIGH RISK FOR OBSTETRICAL HEMORRHAGE

LOW FALL RISK PATIENT

Orders to be Acknowledged — Comment

None

Treatment Team Sticky Notes — Comment

Sticky Notes to Physicians — Comment

Patient Diagnoses

Reasons for Admission

37wks contractions

Medical Problems — Comment

Hospital Problem List

Date Reviewed: 5/8/2014

ICD-9-CM	Priority	Noted	POA
Normal vaginal delivery		5/7/2014	Not Applicable

Non-Hospital Problem List

Date Reviewed: 5/8/2014

None

Care Plan Problems — Report

Knowledge Deficit

Pain

Vaginal Delivery - Recovery and Postpartum

Breast Feeding

Parenting/Coping

Length of Stay

Expected

none

Actual: 2 days

Admission Date: 05/07/2014

ADT Events

05/07/14 1246
Unit: KH P3 LABOR & DELIVERY
Room: Triage Pool
Bed: Triage Pool
Service: Obstetrics/Labor and Delivery
Event: Admission

05/07/14 1257
Unit: KH P3 LABOR & DELIVERY
Room: Triage Pool
Bed: Triage Pool
Service: Obstetrics/Labor and Delivery
Event: Transfer Out

05/07/14 1257
Unit: KH P3 LABOR & DELIVERY
Room: P3TR-03
Bed: P3TR-03

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Readiness

- Postpartum hemorrhage cart
  - Kept on labor & delivery
- OB rapid response team
  - L & D charge nurse or who activates the team?

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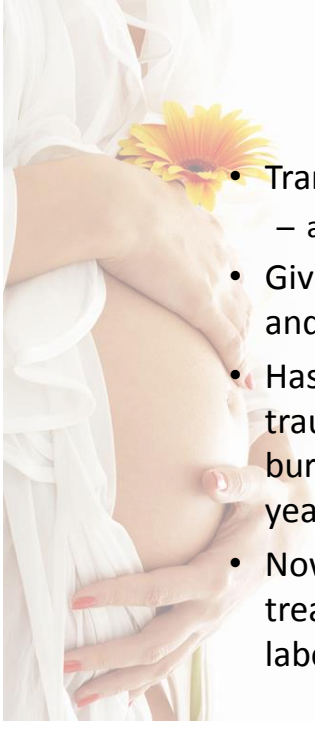

What is TXA?

- Tranexamic Acid (TXA) –
  - antifibrinolytic agent
- Given IV to prevent or reduce bleeding and reduce the need for transfusions
- Has been used to treat hemorrhage in trauma, Jehovah's Witness patients, burn patients and dental practices for years
- Now being used as an additional treatment for PPH in OB patients (off-label)

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What is TXA?

- Early use of TXA for PPH within 3 HOURS of birth can reduce risk of death due to bleeding in PPH
- For **vaginal** or **C-section births**

- OTHER BENEFITS OF TXA:
  - Relatively inexpensive
  - Readily available
  - Easy to administer

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WHO

(World Health Org)

- **WHO** RECOMMENDATIONS – for OB:
  - Considered as part of the standard PPH treatment package
  - Administered as soon as possible after onset of bleeding
  - Should not be started > 3 hours after birth
  - Should be administered via IV route only
  - Should be used regardless of whether the bleeding is due to genital tract trauma or other causes

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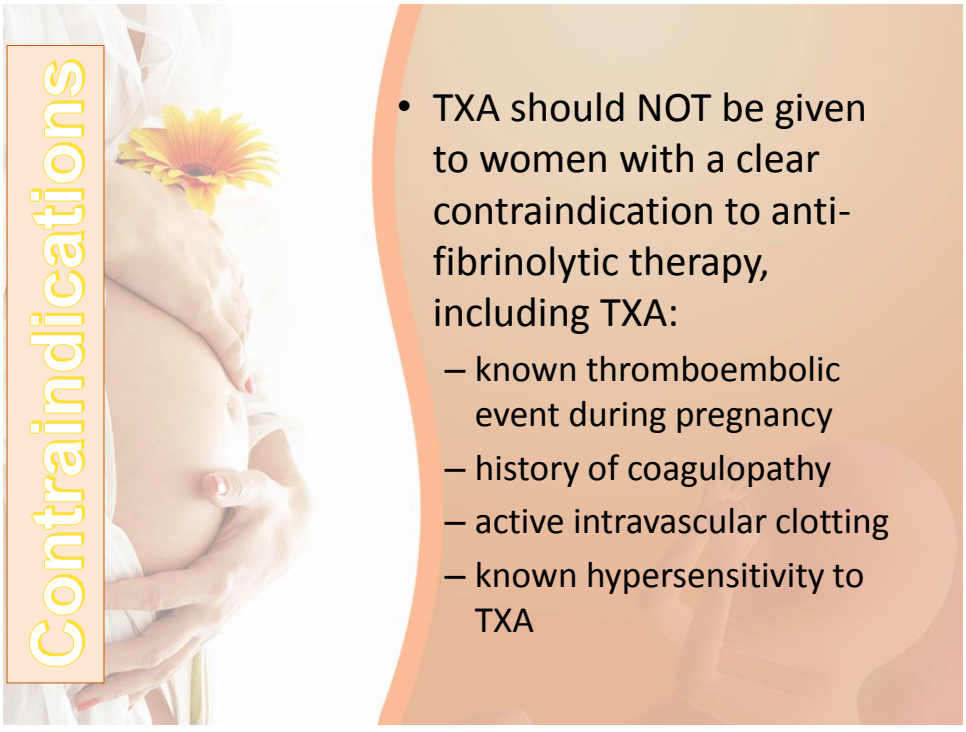
Contraindications
• TXA should NOT be given to women with a clear contraindication to anti-fibrinolytic therapy, including TXA:
– known thromboembolic event during pregnancy
– history of coagulopathy
– active intravascular clotting
– known hypersensitivity to TXA

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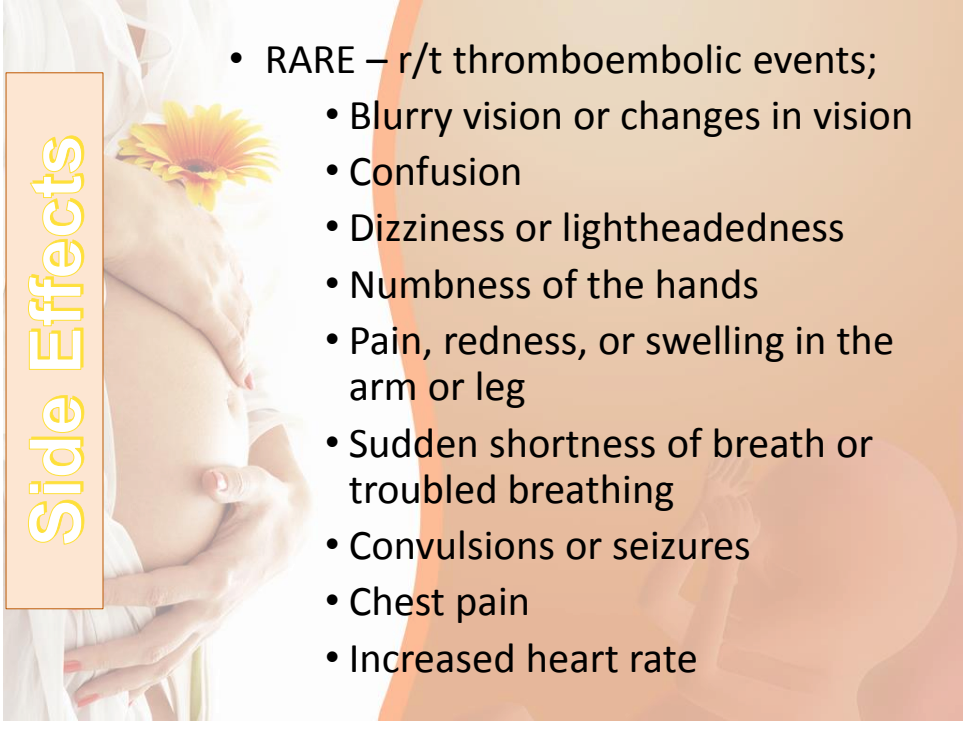
Side Effects
• RARE – r/t thromboembolic events;
• Blurry vision or changes in vision
• Confusion
• Dizziness or lightheadedness
• Numbness of the hands
• Pain, redness, or swelling in the arm or leg
• Sudden shortness of breath or troubled breathing
• Convulsions or seizures
• Chest pain
• Increased heart rate

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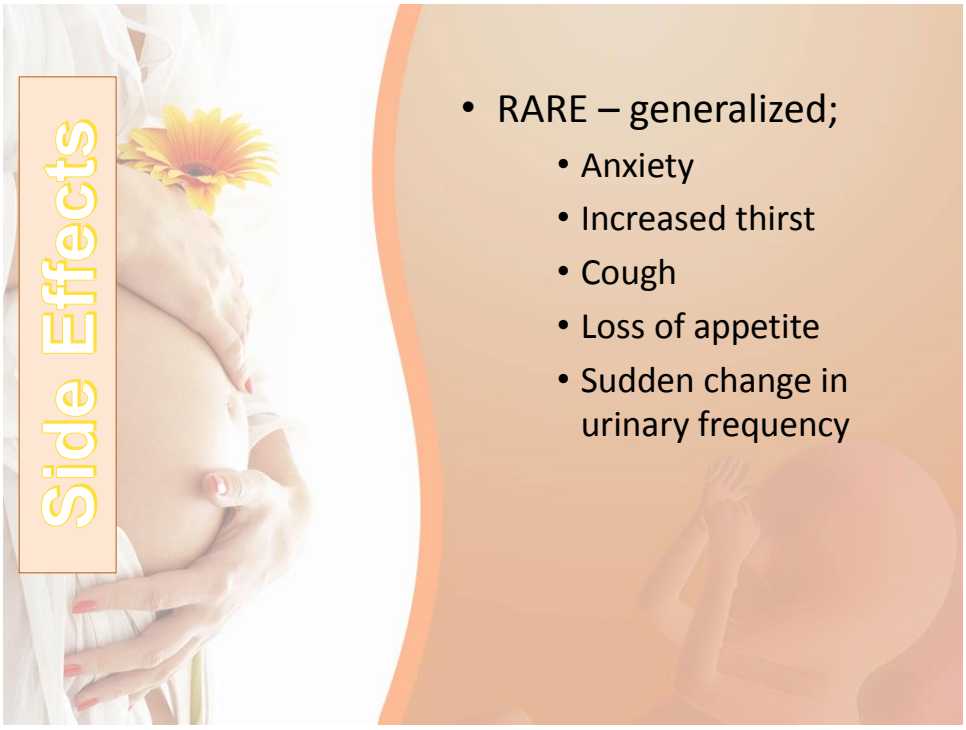
Side Effects
• RARE – generalized;
• Anxiety
• Increased thirst
• Cough
• Loss of appetite
• Sudden change in urinary frequency

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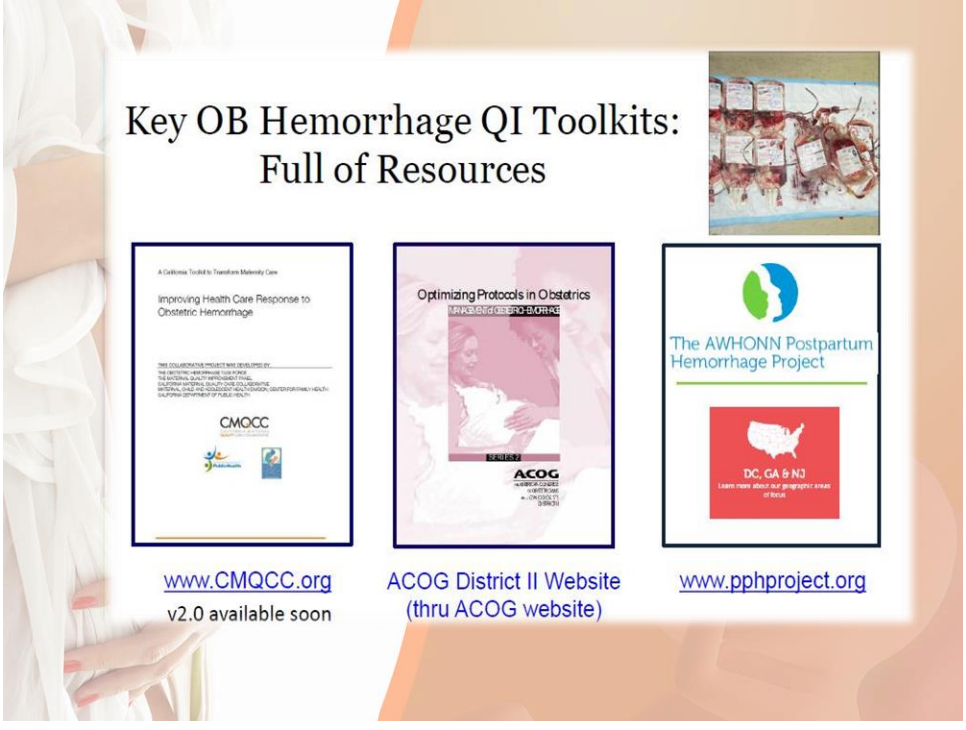
Key OB Hemorrhage QI Toolkits:
Full of Resources
Improving Health Care Response to Obstetric Hemorrhage
CMQCC
Optimizing Protocols in Obstetrics
ACOG
The AWHONN Postpartum Hemorrhage Project
DC, GA & NJ
www.CMQCC.org
v2.0 available soon
ACOG District II Website
(thru ACOG website)
www.pphproject.org

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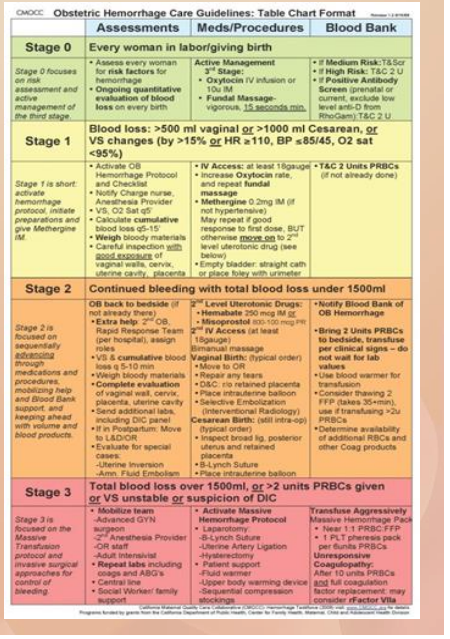
Obstetric Hemorrhage Key Elements

Response - Every Hemorrhage

1. **Unit-standard, stage-based, obstetric hemorrhage emergency management plan with checklists**

2. Support program for patients, families, and staff for all significant hemorrhages



CMQCC Obstetric Hemorrhage Care Guidelines: Table Chart Format

	Assessments	Meds/Procedures	Blood Bank
Stage 0	**Every woman in labor/giving birth**		
Stage 0 focuses on risk assessment and active management of the third stage.	• Assess every woman for **risk factors** for hemorrhage • **Ongoing quantitative evaluation of blood loss** on every birth	**Active Management 3rd Stage:** • **Oxytocin** IV infusion or 10u IM • **Fundal Massage**- vigorous, 15 seconds min.	• If **Medium Risk:** T&Scr • If **High Risk:** T&C 2 U • If **Positive Antibody Screen** (prenatal or current, exclude low level anti-D from RhoGam): T&C 2 U
Stage 1	**Blood loss: >500 ml vaginal or >1000 ml Cesarean, or VS changes (by >15% or HR ≥110, BP ≤85/45, O2 sat <95%)**		
Stage 1 is short: activate hemorrhage protocol, initiate preparations and give Methergine IM.	• Activate OB Hemorrhage Protocol and Checklist • Notify Charge nurse, Anesthesia Provider • VS, O2 Sat q5' • Calculate **cumulative** blood loss q5-15' • **Weigh** bloody materials • Careful inspection with good exposure of vaginal walls, cervix, uterine cavity, placenta	• **IV Access:** at least 18gauge • Increase **Oxytocin** rate, and repeat **fundal massage** • **Methergine** 0.2mg IM (if not hypertensive) May repeat if good response to first dose, BUT otherwise move on to 2nd level uterotonic drug (see below) • Empty bladder: straight cath or place foley with urimeter	• **T&C 2 Units PRBCs** (if not already done)
Stage 2	**Continued bleeding with total blood loss under 1500ml**		
Stage 2 is focused on sequentially advancing through medications and procedures, mobilizing help and Blood Bank support, and keeping ahead with volume and blood products.	**OB back to bedside** (if not already there) • **Extra help**: 2nd OB, Rapid Response Team (per hospital), assign roles • VS & **cumulative** blood loss q 5-10 min •Weigh bloody materials • **Complete evaluation** of vaginal wall, cervix, placenta, uterine cavity • Send additional labs, including DIC panel • If in Postpartum: Move to L&D/OR • Evaluate for special cases: -Uterine Inversion -Amn. Fluid Embolism	**2nd Level Uterotonic Drugs:** • **Hemabate** 250 mcg IM or • **Misoprostol** 800-1000 mcg PR **2nd IV Access** (at least 18gauge) Bimanual massage **Vaginal Birth:** (typical order) • Move to OR • Repair any tears • D&C: r/o retained placenta • Place intrauterine balloon • Selective Embolization (Interventional Radiology) **Cesarean Birth:** (still intra-op) (typical order) • Inspect broad lig, posterior uterus and retained placenta • B-Lynch Suture • Place intrauterine balloon	•**Notify Blood Bank of OB Hemorrhage** •**Bring 2 Units PRBCs to bedside, transfuse per clinical signs – do not wait for lab values** • Use blood warmer for transfusion •Consider thawing 2 FFP (takes 35+min), use if transfusing >2u PRBCs •Determine availability of additional RBCs and other Coag products
Stage 3	**Total blood loss over 1500ml, or >2 units PRBCs given or VS unstable or suspicion of DIC**		
Stage 3 is focused on the Massive Transfusion protocol and invasive surgical approaches for control of bleeding.	• **Mobilize team** -Advanced GYN surgeon -2nd Anesthesia Provider -OR staff -Adult Intensivist • **Repeat labs** including coags and ABG's • Central line • Social Worker/ family support	• **Activate Massive Hemorrhage Protocol** • Laparotomy -B-Lynch Suture -Uterine Artery Ligation -Hysterectomy • Patient support -Fluid warmer -Upper body warming device -Sequential compression stockings	**Transfuse Aggressively** Massive Hemorrhage Pack • Near 1:1 PRBC:FFP • 1 PLT pheresis pack per 6units PRBCs **Unresponsive Coagulopathy:** After 10 units PRBCs and full coagulation factor replacement: may consider **rFactor VIIa**

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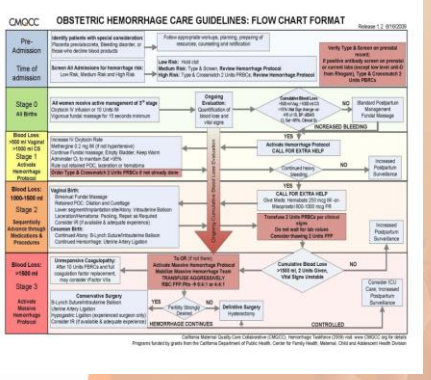
CMQCC OB Hemorrhage Guidelines

CMQCC CALIFORNIA MATERNAL QUALITY CARE COLLABORATIVE



CMQCC OBSTETRIC HEMORRHAGE CARE GUIDELINES: FLOW CHART FORMAT

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Resources for Guidelines

- Council on Patient Safety in Women's Health Care and the Alliance for Innovation on Maternal Health http://safehealthcareforeverywoman.org
- http://hret-hen.org – Hospital Engagement Network Obstetrical Harm Change Package (AHA)
- www.pphproject.org
- Safety Program for perinatal Care (AHRQ) http://www.ahrq.gov/professionals/quality-patient-safety/hais/tools/perinatal-care
- www.cmqcc.org

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OPS

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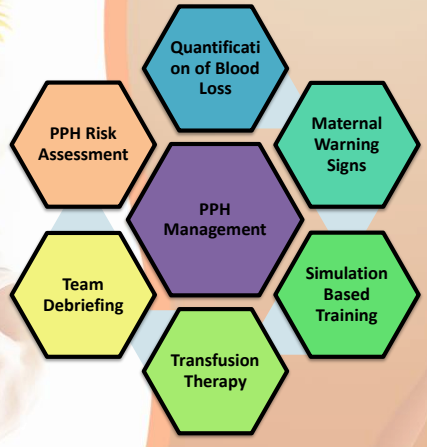
AWHONN PPH Education Modules



- On-line
- Fast
- Self-paced
- Team Training
- Certificate of completion

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Response

Debriefings

- Quick review of events
- Identify process errors : individual, team & system

Root-Cause Analysis

- Management decisions
- Work flow
- Patient decisions/ Patient characteristics

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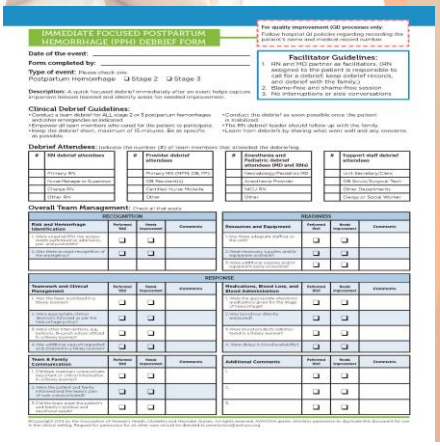
Response



IMMEDIATE FOCUSED POSTPARTUM HEMORRHAGE (PPH) DEBRIEF FORM

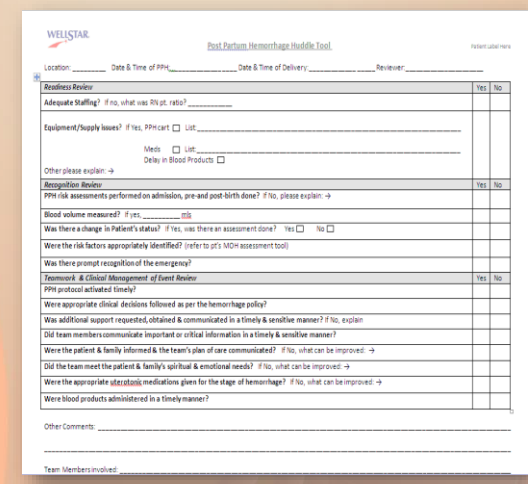
Facilitator Guidelines:

1. RN and MD partner as facilitators. (RN assigned to the patient is responsible to capture the debrief, keep debrief records, and file in the chart.)
2. Blame-free and shame-free session
3. No interruptions or side conversations

Clinical Debrief Guidelines:

Debrief Attendees:

Overall Team Management:



WELLSTAR

Post Partum Hemorrhage Huddle Tool

Location: _____ Date & Time of PPH: _____ Date & Time of Delivery: _____ Reviewer: _____

Readiness Review	Yes	No
Adequate Staffing? If no, what was RN:pt. ratio? _____		
Equipment/Supply Issues? If Yes, PPH cart ☐ List: _____ Meds ☐ List: _____ Delay in Blood Products ☐ Other please explain: →		
Recognition Review	**Yes**	**No**
PPH risk assessments performed on admission, pre-and post-birth done? If No, please explain: →		
Blood volume measured? If yes, _____ mls		
Was there a change in Patient's status? If Yes, was there an assessment done? Yes ☐ No ☐		
Were the risk factors appropriately identified? (refer to pt's MOH assessment tool)		
Was there prompt recognition of the emergency?		
Teamwork & Clinical Management of Event Review	**Yes**	**No**
PPH protocol activated timely?		
Were appropriate clinical decisions followed as per the hemorrhage policy?		
Was additional support requested, obtained & communicated in a timely & sensitive manner? If No, explain		
Did team members communicate important or critical information in a timely & sensitive manner?		
Were the patient & family informed & the team's plan of care communicated? If No, what can be improved: →		
Did the team meet the patient & family's spiritual & emotional needs? If No, what can be improved: →		
Were the appropriate uterotonic medications given for the stage of hemorrhage? If No, what can be improved: →		
Were blood products administered in a timely manner?		

Other Comments: _____

Team Members involved: _____

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Case Study

A 24-year-old woman, Gravida 2 Para 1 at 38 weeks gestation was induced for "tired of being pregnant":

After an 8-hour active phase and 2-hour second-stage, she gave birth (spontaneous vaginal delivery) to an 8 pound, 6 ounce infant. After placental delivery, she had an episode of uterine atony that fi rmed with massage. A second episode of uterine atony responded to intramuscular methylergonovine (Methergine) and the physician went home at 1 a.m. The nurses called the physician 30 minutes later to report more bleeding and further methylergonovine was ordered. Sixty minutes after the call, the physician performed a dilatation and curettage (D&C) with minimal return of tissue. The woman received more methylergonovine. Forty-fi ve minutes later a second D&C was performed, again with minimal returns. EBL at this point was >2,000 mL. Further delays in blood transfusion occurred because of inability to fi nd proper blood administration tubing. Anesthesia was delayed, but a second I.V. started for more crystalloid. Vital signs became markedly abnormal: pulse = 144 beats/min, blood pressure 80/30 mmHg. One further dose of methylergonovine was given and the woman was taken for a third D&C. She had received 2 units of packed red blood cells by this point. After the D&C she had a cardiac arrest from hypovolemia and hypoxia, and was taken to the ICU, where she died 3 hours later despite intensive supportive care and resuscitative efforts.

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Benefits of QBL

- **QBL reduces the likelihood that clinicians will underestimate the volume of blood loss and delay early recognition and treatment.**
- **Improves maternal outcomes:**
  - **Improves prompt recognition and response to hemorrhage**
- **Decreases denial of blood loss and delay of live saving interventions**

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But the hospital was down to its last unit of matching blood, according to court records. "We didn't even have enough blood to give her a hysterectomy," De Lorenzo said in a deposition.

Benefits of QBL

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Practice Brief Quantification of Blood Loss (QBL)

- **Suggested Equipment**
  - Calibrated under-buttocks drapes to measure blood loss
  - Dry weight card, laminated and attached to all scales, for measurement of items that may become blood-soaked when a woman is in labor or after giving birth
  - Scales to weigh blood-soaked items, ideally in every labor and operating room and on the postpartum unit; save costs by using the scales used to weigh newborns
  - Formulas inserted into the electronic charting system that automatically deduct dry weights from wet weights of standard supplies such as chux and peri-pads

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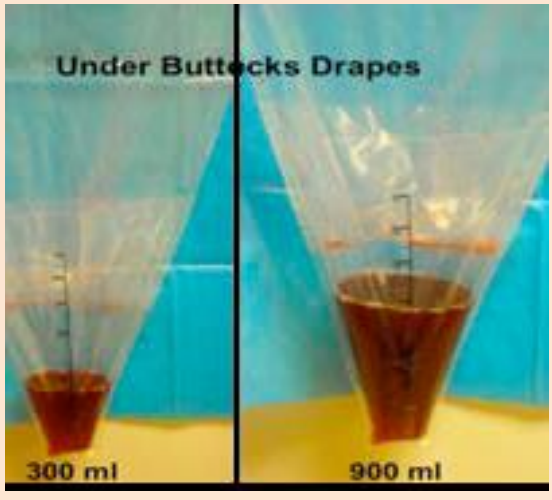

Methods to Estimate Blood Loss

Quantifying blood loss by measuring
• Use graduated collection containers (C/S and vaginal deliveries)
• Account for other fluids (amniotic fluid, urine, irrigation

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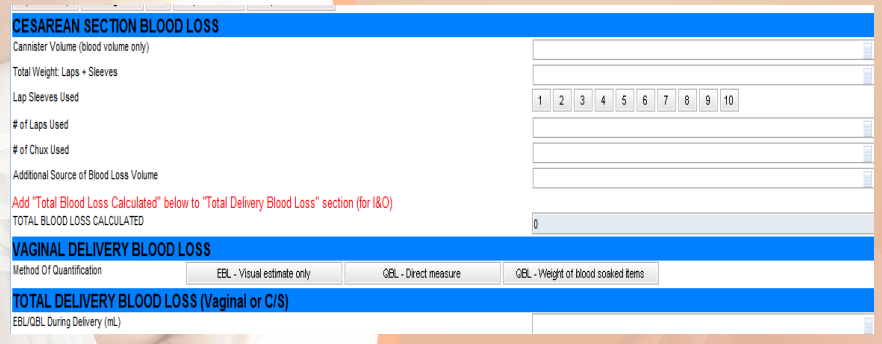
QBL Calculator



CESAREAN SECTION BLOOD LOSS

Cannister Volume (blood volume only)	
Total Weight: Laps + Sleeves	
Lap Sleeves Used	1 2 3 4 5 6 7 8 9 10
# of Laps Used	
# of Chux Used	
Additional Source of Blood Loss Volume	
Add "Total Blood Loss Calculated" below to "Total Delivery Blood Loss" section (for I&O)	
TOTAL BLOOD LOSS CALCULATED	0

VAGINAL DELIVERY BLOOD LOSS

Method Of Quantification: EBL - Visual estimate only | QBL - Direct measure | QBL - Weight of blood soaked items

TOTAL DELIVERY BLOOD LOSS (Vaginal or C/S)

EBL/QBL During Delivery (mL)

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Vaginal and Cesarean Births

For Vaginal Births

- Begin right after the infant's birth:
  - Note amniotic fluid, urine, etc. in the under-buttocks bag prior to birth. (applicable if SROM occurs close to birth or amnioinfusion performed.)
  - RN looks at the bag as soon as MD/CNM has completed the delivery to communicate the amount of blood in the calibrated drape as QBL.

For Cesarean Births

- Begin when the amniotic membranes are ruptured (unless woman is post AROM/SROM) or after the infant is born:
- Start by using two suction canisters:
  - One for amniotic fluid and second for QBL.
  - Switch suction tubing to the QBL canister prior to delivery of placenta (not applicable if ROM prior to surgery) and document the canister volume as QBL prior to irrigation.
- Weigh bloody sponges, laps, record QBL amount after fascia closed and prior to skin closure .

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Transfusion Therapy

INFORMED CONSENT
Addendum Blood Transfusion Refusal
DO NOT SIGN THIS FORM UNTIL YOU READ AND UNDERSTAND ITS CONTENTS
PLACE THIS FORM IN THE MEDICAL CHART

PLEASE INITIAL AND CHECK (☑) WHICH ONE APPLIES:

INITIAL

FRACTIONS OF HUMAN BLOOD
- ☐ Cryoprecipitate
- ☐ Albumin
- ☐ Interferons

MEDICATIONS THAT CONTAIN A FRACTION OF HUMAN BLOOD
- ☐ Rho(D) immune globulin
- ☐ Erythropoietin
- ☐ Human immunoglobulin
- ☐ Antihemophilic factor kit (1000 unit) (Monoclate P)
- ☐ Antihemophilic factor - VWF750 unite (Humate P)
- ☐ Antithrombin III (human) (500 unit) (Thrombate III)
- ☐ Fibrin sealant component kit 10 mL, 4 mL (Tisseal)
- ☐ Interferon A 2B (IntronA)

TECHNIQUES FOR BLOOD CONSERVATION / PROCESSING
- ☐ Cell saver / salvage
- ☐ Autologous banked blood
- ☐ Cardiopulmonary bypass
- ☐ Plasmapheresis
- ☐ Hemodialysis
- ☐ Other: _____

I understand:
- That this form will help me delineate which blood products may be acceptable to me, as I have refused blood transfusion, whether based on religious or personal preference.
- That I can change my mind. If I do, I must tell my / the patient's doctor or team before they start.

I have been given the opportunity to ask questions and all questions have been answered to my satisfaction. My Signature below indicates that I request no blood derivatives other than the ones which I have designated in this addendum to be administered to me during this hospitalization.

SIGNATURE of patient / person giving consent (legally authorized to do so):		Witness to signature (SIGNATURE AND PRINTED NAME):	
DATE SIGNED:	TIME: AM / PM	DATE SIGNED:	TIME: AM / PM
Relationship to patient (if applicable):			
Name of interpreter (if applicable):			

WellStar
☐ Cobb ☐ Douglas ☐ Kennestone
☐ Paulding ☐ Windy Hill
Informed Consent
Addendum Blood Transfusion Refusal

FORM #WSCNT ITEM #64 Page 1 of 2 New 7/2013
1-WSCNT **Consent** HIM Approved 6/2013

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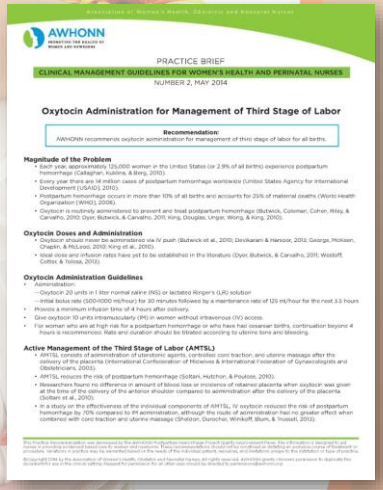
Oxytocin Administration for Management of 3rd Stage of Labor



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PRACTICE BRIEF

CLINICAL MANAGEMENT GUIDELINES FOR WOMEN'S HEALTH AND PERINATAL NURSES

NUMBER 2, MAY 2014

Oxytocin Administration for Management of Third Stage of Labor

Recommendation:
AWHONN recommends oxytocin administration for management of third stage of labor for all births.

Magnitude of the Problem
- Each year, approximately 125,000 women in the United States (or 2.9% of all births) experience postpartum hemorrhage (Callaghan, Kuklina, & Berg, 2010).
- Every year there are 14 million cases of postpartum hemorrhage worldwide (United States Agency for International Development [USAID], 2010).
- Postpartum hemorrhage occurs in more than 10% of all births and accounts for 25% of maternal deaths (World Health Organization [WHO], 2006).
- Oxytocin is routinely administered to prevent and treat postpartum hemorrhage (Butwick, Coleman, Cohen, Riley, & Carvalho, 2010; Dyer, Butwick, & Carvalho, 2011; King, Douglas, Unger, Wong, & King, 2010).

Oxytocin Doses and Administration
- Oxytocin should never be administered via IV push (Butwick et al., 2010; Devkaran & Hansoo, 2012; George, McKeen, Chaplin, & McLoon, 2010; King et al., 2010).
- Ideal dose and infusion rates have yet to be established in the literature (Dyer, Butwick, & Carvalho, 2011; Westhoff, Cotton, & Tolosa, 2010).

Oxytocin Administration Guidelines
- Administration:
  - —Oxytocin 20 units in 1 liter normal saline (NS) or lactated Ringer's (LR) solution
  - —Initial bolus rate (500-1000 ml/hour) for 30 minutes followed by a maintenance rate of 125 ml/hour for the next 3.5 hours
- Provide a minimum infusion time of 4 hours after delivery.
- Give oxytocin 10 units intramuscularly (IM) in women without intravenous (IV) access.
- For woman who are at high risk for a postpartum hemorrhage or who have had cesarean births, continuation beyond 4 hours is recommended. Rate and duration should be titrated according to uterine tone and bleeding.

Active Management of the Third Stage of Labor (AMTSL)
- AMTSL consists of administration of uterotonic agents, controlled cord traction, and uterine massage after the delivery of the placenta (International Confederation of Midwives & International Federation of Gynaecologists and Obstetricians, 2003).
- AMTSL reduces the risk of postpartum hemorrhage (Soltani, Hutchon, & Pevzner, 2010).
- Researchers found no difference in amount of blood loss or incidence of retained placenta when oxytocin was given at the time of the delivery of the anterior shoulder compared to administration after the delivery of the placenta (Soltani et al., 2010).
- In a study on the effectiveness of the individual components of AMTSL, IV oxytocin reduced the risk of postpartum hemorrhage by 70% compared to IM administration, although the route of administration had no greater effect when combined with cord traction and uterine massage (Shelton, Durocher, Winikoff, Blum, & Hussaif, 2003).

Oxytocin Administration Guidelines

- **Administration:**
- **— Oxytocin 20 units in 1 liter normal saline (NS) or lactated Ringer's (LR) solution**
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Blood Estimation Table

Blood volume loss	BP (systolic)	Pulse	Signs & symptoms	Degree of shock
500–1000 ml (10–15%)	Normal	Normal	Palpitation, dizziness	Compensated
1000–1500 ml (15–25%)	Slight fall (80–100 mm Hg)	> 100	Weakness, tachycardia, sweating	Mild
1500–2000 ml (25–30%)	Moderate fall (70–80 mm Hg)	> 120	Restlessness, pallor, oliguria	Moderate
2000–3000 ml (35–45%)	Marked fall (50–70 mm Hg)	> 140	Collapse, air hunger,	Severe

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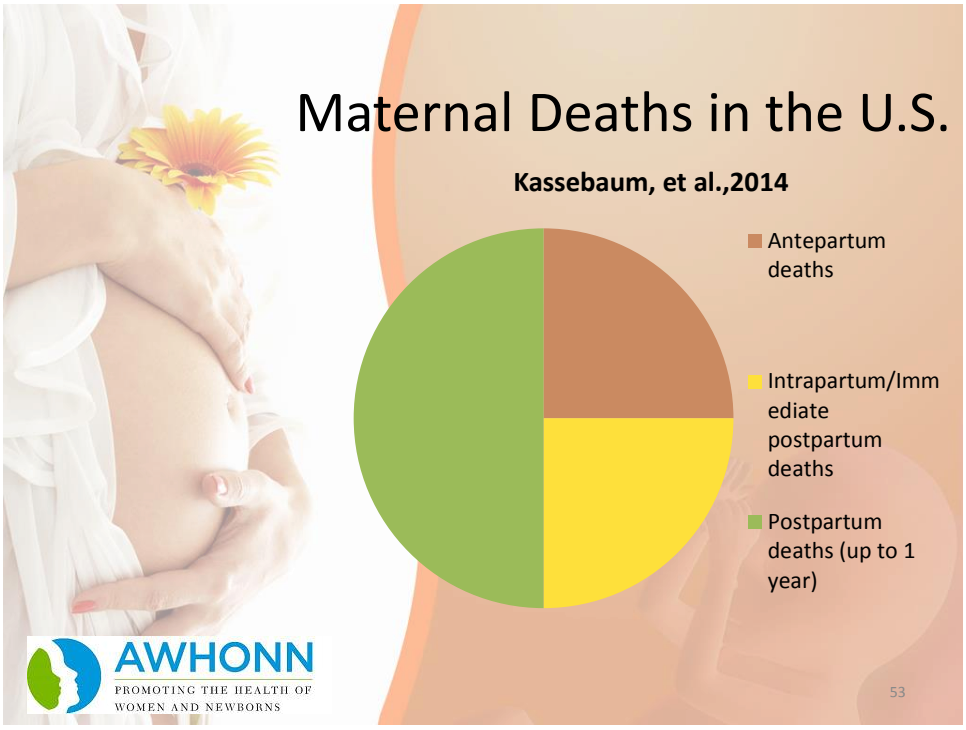

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Save Your Life: Get Immediate Care

- Handout for **ALL** women to reinforce teaching
- Organized by call to action and specific warning signs of obstetric hemorrhage, severe hypertension, and venous thromboembolism

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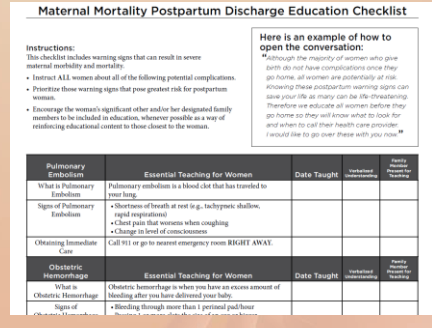
Maternal Mortality Postpartum Discharge Education Checklist

- **Checklist of talking points for nurses**
- **Use with ALL postpartum women**
- **Document, sign, and place in each medical record after completed**


Maternal Mortality Postpartum Discharge Education Checklist

Instructions:
This checklist includes warning signs that can result in severe maternal morbidity and mortality.
- Instruct ALL women about all of the following potential complications.
- Prioritize those warning signs that pose greatest risk for postpartum woman.
- Encourage the woman's significant other and/or her designated family members to be included in education, whenever possible as a way of reinforcing educational content to those closest to the woman.

Here is an example of how to open the conversation:
"Although the majority of women who give birth do not have complications once they go home, all women are potentially at risk. Knowing these postpartum warning signs can save your life as many can be life threatening. Therefore we educate all women before they go home so they will know what to look for and when to call their health care provider. I would like to go over these with you now."

Pulmonary Embolism	Essential Teaching for Women	Date Taught	Verbalized Understanding	Family Member Present for Teaching
What is Pulmonary Embolism	Pulmonary embolism is a blood clot that has traveled to your lung.			
Signs of Pulmonary Embolism	• Shortness of breath at rest (e.g., tachypneic shallow, rapid respirations) • Chest pain that worsens when coughing • Change in level of consciousness			
Obtaining Immediate Care	Call 911 or go to nearest emergency room RIGHT AWAY.			
Obstetric Hemorrhage	**Essential Teaching for Women**	**Date Taught**	**Verbalized Understanding**	**Family Member Present for Teaching**
What is Obstetric Hemorrhage	Obstetric hemorrhage is when you have an excess amount of bleeding after you have delivered your baby.			
Signs of	• Bleeding through more than 1 perineal pad/hour			

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www.gothefull40.com

Ad & Posters
40 reasons article
Zone at Health4mom.org

Tool Kit
Champions Group

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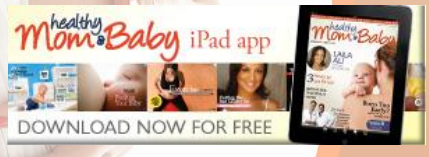
Go the Full 40: a consumer campaign

- Partnership between AWHONN and its *Healthy Mom&Baby* media
- *Healthy Mom&Baby*: magazine, iPad app, www.health4mom.org HMB social media
- Nurse distribution



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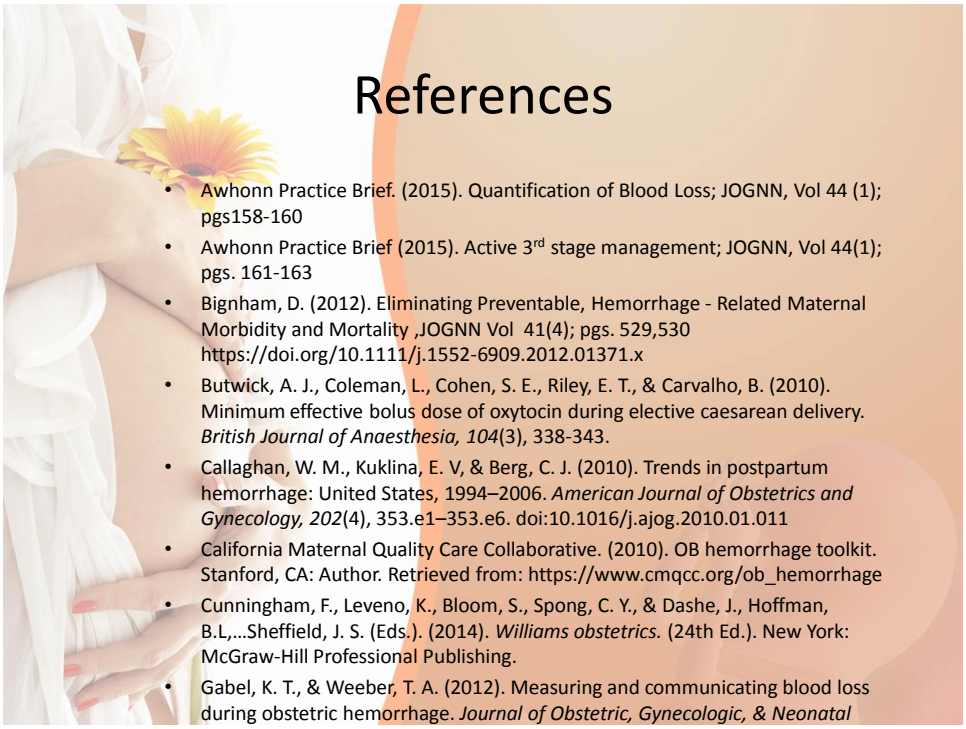

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