Objectives

• Describe why AWHONN is working to improve recognition, readiness, and response to a postpartum hemorrhage (PPH)

• Provide an overview of AWHONN’s obstetrical hemorrhage quality improvement initiative and key components of this project
Obstetric hemorrhage leading cause of maternal mortality and mortality in the United States (Berg et al., 2010)

Obstetric hemorrhage is a major cause of maternal morbidity
In 2006, obstetric hemorrhage affected 124,708 (2.9%) of all women who gave birth in the United States (Callaghan et al., 2010)
Preventable OB Hemorrhage Deaths

Percent of obstetric hemorrhage deaths determined to be preventable:

• 54% (Della Torre et al., 2011)
• 70% good or strong chance (California Department of Public Health, 2011)
• 93% (Berg et al., 2005)
Women die from postpartum hemorrhage because they do not receive early, effective and aggressive lifesaving treatments.
Increase in Blood Transfusion Rates

183% increase in the number of women receiving a blood transfusion for delivery hospitalizations

Quantification of Blood Loss (QBL):
Quantify blood loss by utilizing scales and calibrated equipment to measure cumulative maternal blood loss after every birth. (Refer to AWHONN Practice Brief: QBL and the QBL Measurement Log.)

Simulation Based Training:
Conduct in situ, interdisciplinary simulation based training to allow OB teams to practice management of PPH.

Team Debriefing:
Conduct a focused debrief as soon as woman is stabilized for ALL postpartum hemorrhages that progress to Stages 2 and 3. (Refer to Team Debriefing Form.)

Postpartum Hemorrhage Policy:
Have a PPH policy that defines the blood loss parameters and interdisciplinary management for each post-partum stage. (Refer to PPH Algorithm.)

Oxytocin Administration for Active Management of the 3rd Stage of Labor:
Administer oxytocin and fundal massage after every birth. Maintenance rate for 4 hours or more based on bleeding. Uterotonics should be immediately available. (Refer to AWHONN Practice Brief: Oxytocin Administration for Active Management of the 3rd Stage of Labor.)

PPH Risk Assessment:
Perform postpartum hemorrhage risk assessments upon admission, pre-birth and post-birth. (Refer to PPH Risk Assessment Table.)

Maternal Warning Signs:
All women who meet ANY of the Stages 1 to 3 blood loss and/or vital sign criteria should receive prompt bedside evaluation.

Massive Transfusion Protocol (MTP):
Have a massive transfusion protocol that includes criteria for activation, who may initiate the protocol, and the standard pack or cooler contents. (Refer to Elements of a Sample Hospital-based MTP)

Transfusion Therapy:
With ongoing hemorrhage, initiate blood transfusion therapy as quickly as possible do not wait for labs or worsening maternal status. Aggressively transfuse units in ratio of 2RBCs:1FFP.
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<tr>
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<th>Locations</th>
<th>Area of Expertise</th>
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Three states were selected based on the following criteria:

- High rates of maternal mortality
  - DC (51st), GA (50th), NJ (35th)
- Well-organized communication networks
- No competing OB hemorrhage-related initiatives in the state
- Strong AWHONN leadership

Supported by a grant from Merck for Mothers
Figure 1: Number of Preparedness Elements

Median: 23
Mean: 23.1
Mode: 25
Range: 12-34
Data Collection Items

• Outcome Indicators
• Process Indicators
• Structure Indicators
• Intensity Items
• Staffing Items
PPH Project Tools
PPH Project Algorithm

• Five stages of hemorrhage
  – Standardize based on the CMQCC algorithm

• Stages are based upon the amount of quantified blood loss

• AWHONN recommends stage specific actions
Risk Assessment

• On admission

• Pre-birth
  – 30-60 minutes prior to delivery

• Post-birth
National Recommendations for Quantifying Blood Loss (QBL)

- AWHONN
  - All births

- California Maternal Quality Care Collaborative (CMQCC)
  - All births

- National Partnership for Maternal Safety
  - Formal measurement of cumulative blood loss for every patient
EBL is common practice in obstetrics, however its inaccuracy has been well established:

• Research from the 1960s have shown errors of both underestimation and overestimation (Brant, 1967; Pritchard, 1965).

• Visual estimation can underestimate actual blood loss by 33 – 50% (Patel et al., 2006).

• With training, clinicians initially improved accuracy with visual estimation but experienced skill decay (Dildy et al., 2004) within 9 months of training completion (Toledo et al., 2012).

• Provider specialty, age, or years of experience are all unrelated to accuracy of visual EBL (Al Kadri et al., 2011; Toledo et al., 2007).
Visual Estimation: Overestimation and Underestimation

• Visual EBL consistently resulted in underestimation of large volumes (Brant, 1967; Duthie et al., 1990; Stafford et al., 2008) of greater than 1000 ml (Stafford et al., 2008)
• With smaller volumes, EBL resulted in overestimation compared to direct measurement (Dildy et al., 2004)
• Inaccurate postpartum blood loss volume measurement has the following consequences
  – **Overestimation** can lead to costly, unnecessary treatments like transfusions
  – **Underestimation** can lead to the delay of life saving hemorrhage interventions
Quantification of Blood Loss (QBL) Methods

- **Quantification of blood loss** is a formal measurement using weighing and blood collection devices to determine the actual amount of blood loss.
- Methods to quantify blood loss, such as weighing, are significantly more accurate than EBL (Ai Kadri et al., 2011).
- The use of a calibrated drape had an error rate of less than 15% (Toledo et al., 2007).
AWHONN’s QBL Practice Brief

www.pphproject.org website – Resources tab

AWHONN Resources

Practicing Brief

CLINICAL MANAGEMENT GUIDELINES FOR WOMEN’S HEALTH AND PERINATAL NURSES
NUMBER 1, MAY 2014

Quantification of Blood Loss

Recommendation:
AWHONN recommends that blood loss be formally measured or quantified after every birth.

Magnitude of the Problem

- A leading cause of maternal morbidity and mortality is failure to recognize excessive blood loss during childbirth (The Joint Commission, 2010).
- Women die from obstetric hemorrhage because effective interventions are not initiated early enough (Berg et al., 2005; Della Torre et al., 2011).

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http://www.pphproject.org/resources.asp
AWHONN QBL Video

https://www.youtube.com/watch?v=F_ac-aCbEn0&list=UUPrOhL3Od7ZeFDq27ycS00g
AWHONN PPH Education Modules

- PPH Risk Assessment
- Quantification of Blood Loss
- Maternal Warning Signs
- PPH Management
- Simulation Based Training
- Team Debriefing
- Transfusion Therapy

*On-line
*Self-paced
*Team training
*Certificate of completion

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Monthly calls

• Held once per month for each collaborative region
  – DC/GA
  – NJ

• Calls consist of:
  – Project updates
  – Education
  – Hospital report out
  – QI Implementation tips
  – Q & A
Etiology of Postpartum Hemorrhage

- Uterine Atony: 77.8%
- Retained placenta (including accreta): 9.4%
- Coagulopathy: 5.1%
- Delayed (more than 24 h after delivery): 7.7%


n=26,175
healthy Mom & Baby

PREGNANCY | BIRTH | LIFE

(BE PART OF) the conversation between mom and her nurse...

www.Health4Mom.org
Go The Full 40™ Campaign

- Ads & posters
- 40 Reasons Article
- Zone at Health4Mom.org
- Toolkit
- Champions Group
“We agree that patient-centered and safe care of the mother and child enhance quality and is our primary priority... Ensure that quality obstetric care is a priority that guides individual and team decisions.”


Endorsed by AAFP, AAP, ACNM, ACOG, ACOOG, AWHONN, SMFM
Thank you!

Questions?

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