



Creating Culture of Safety: Physician and Staff Buy In!

Lashea Wattie M.Ed, MSN, AG-CNS-BC,
APRN, RNC, C-EFM
System Clinical Nurse Specialist, Perinatal

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Provide the WHY!!

Educate

Motivate

Empower

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Standardization

- PATIENT SAFETY
- RISK REDUCTION
- SAFE CLINICAL OUTCOMES

Processes

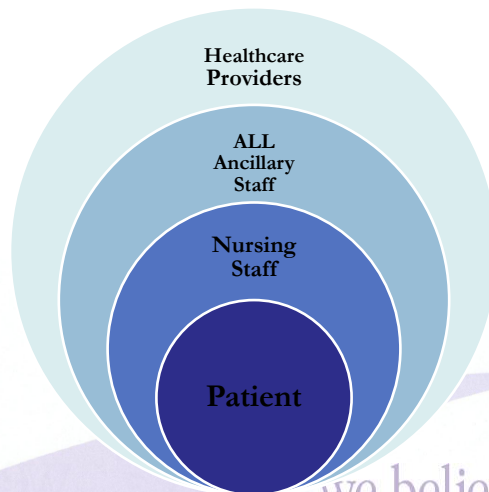
- ORDER SETS
- PROTOCOLS
- EDUCATION, PATIENT TEACHING



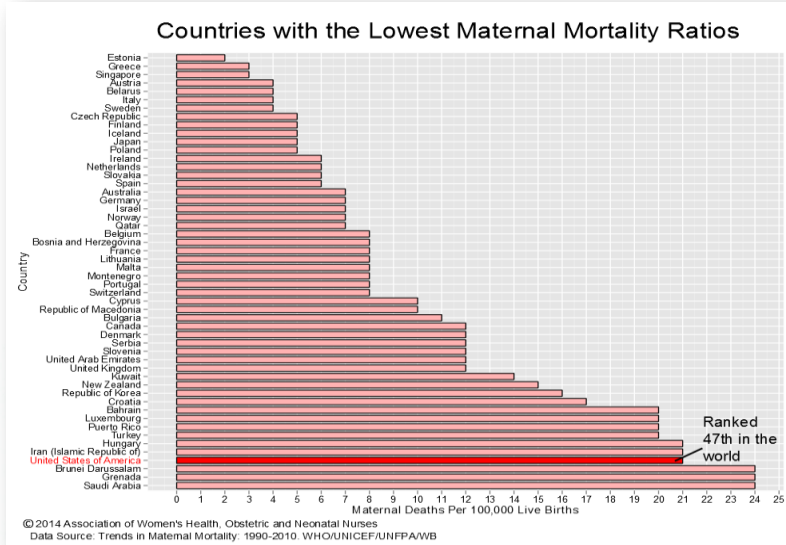
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JOGNN

IN FOCUS

Maternal Death from Obstetric Hemorrhage

Debra Bingham and René Jones

Correspondence
Debra Bingham, DrPH,
RN, Association of
Women's Health, Obstetric,
and Neonatal Nurses
(AWHONN), 2000 L
Street, NW, Suite 740,
Washington, DC 20036,
dbingham@awhonn.org

ABSTRACT

Obstetric hemorrhage remains the leading cause of maternal death in the United States, and 54% to 93% of these deaths may have been preventable. Leaders must honor the lives of women who die from obstetric hemorrhage by reviewing their deaths and sharing lessons learned. Shortening the current 3 to 7 year data gap will allow for timely initiation of quality improvement efforts. Designated leaders and researchers from the Association of Women's Health, Obstetric, and Neonatal Nurses are ideally positioned to lead these quality initiatives.

JOGNN, 41, 531-539; 2012. DOI: 10.1111/j.1552-6909.2012.01372.x

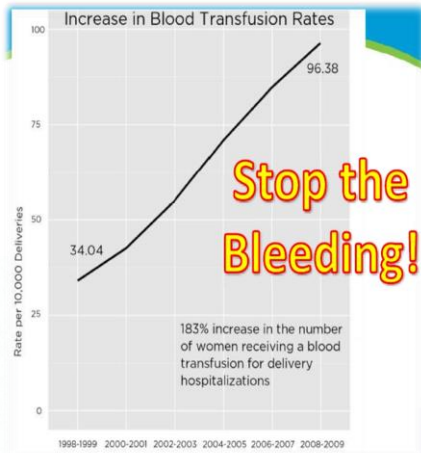
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Keywords
maternal mortality
maternal morbidity
obstetric hemorrhage
quality improvement
state-wide maternal
mortality reviews

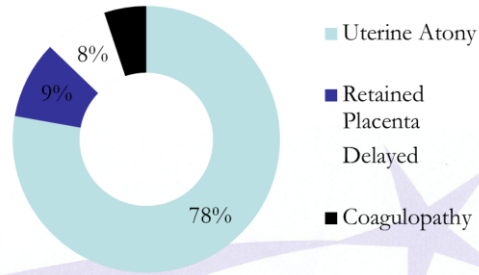
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Here Lies the Problem...



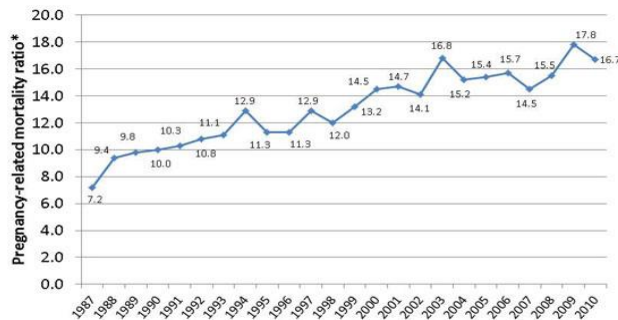
Etiology of Postpartum Hemorrhage



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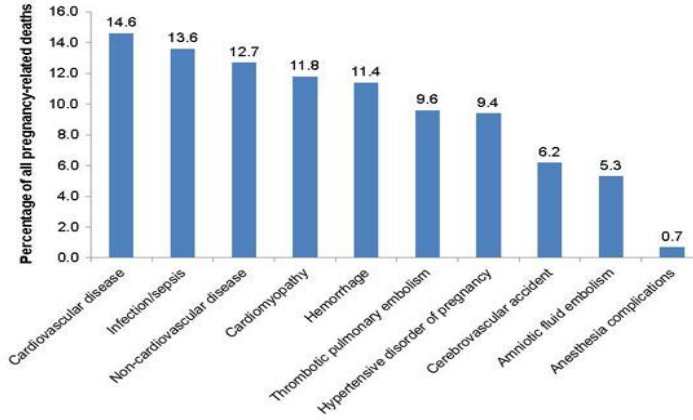
Trends in pregnancy-related mortality in the United States: 1987-2010



*Note: Number of pregnancy-related deaths per 100,000 live births per year.

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



Note: The cause of death is unknown for 4.7% of all pregnancy-related deaths.

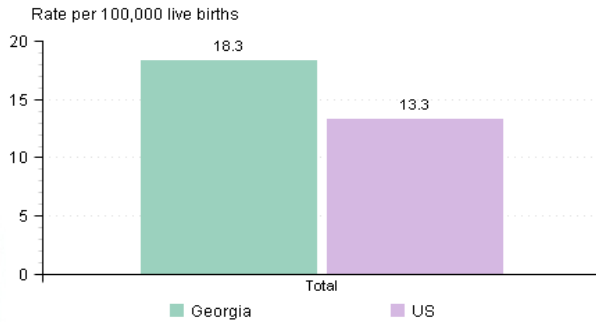
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Maternal mortality rates

Georgia and US, 2003-2007 Average



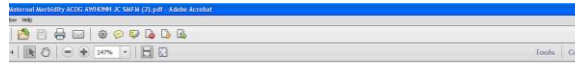
- Georgia (GA) 20.5 per 100,000 Ranks 50th
- 88 Birthing Hospitals



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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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January 28, 2015

Severe Maternal Morbidity: Clarification of the New Joint Commission Sentinel Event Policy

In January 2015, the Joint Commission issued a revised definition for a sentinel event, expanding the concept for all specialties to include "a patient safety event (not primarily related to the natural course of the patient's illness or underlying condition) that reaches a patient and results in any of the following: death, permanent harm, or severe temporary harm" (1). For obstetrics, the new definition for severe temporary harm focused on severe maternal morbidity defined as receiving 4 or more units of blood products (subsequently revised to 4 or more units of RBCs) and/or ICU admission (2,3). Although this revision brought

Revised definition of a sentinel event

Severe Maternal Morbidity : receiving greater than 4 or more units of blood products and or ICU admission

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H.R. 4216

Maternal Health Accountability Act of 2014

Pregnancy related ratio in the US as measured by CDC and Prevention Pregnancy Mortality Surveillance System

State based maternal death reviews and maternal quality collaborative

African-American women are 3 to 4 more likely to die

Healthy People 2010, set a goal reducing maternal mortality and it was not met

Near miss or severe maternal morbidity has increased by 75% and 114% for postpartum hospitalizations

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GA MMRCC 2013 cases

- The Georgia MMRC identified 32 deaths *pregnancy-related*. Cardiomyopathy was leading cause of pregnancy related deaths. These deaths occurred 43 to 364 days postpartum they were cardiomyopathy/cardiovascular (16%)
- Second leading cause : Hemorrhage (16%) and Embolism (16%)
 - Causes of embolism were unique to pregnancy such as: gestational diabetes, hyperemesis, liver disease of pregnancy

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GA MMRC 2013 Cases

- Cardiac Disorders: Cardiomyopathy
 - Women were unaware of their risk and/or warning signs of cardiac diseases
 - Providers did not screen, educate, and or refer women at risk for cardiomyopathy
- Embolism:
 - Obese patients placed on prolonged bed rest fostering a thrombotic event
 - Lack of prophylaxis to prevent thrombosis

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GA MMRC 2013 cases

- Hemorrhage
 - Delayed recognition and treatment of hemorrhage in postpartum women by both clinicians and patients.
- Anxiety /Depression
 - Inadequate screening of pregnant and postpartum women for depression and other mental health issues.
 - Possible lack of access to mental health services
 - Potential lack of awareness by patients or providers of benefits and safety of antidepressant therapy during pregnancy and postpartum.

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National Partnership for Maternal Safety Goals

1. To reduce maternal morbidity and mortality in the US by 50%
2. To reduce racial and ethnic maternal health disparities



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“What every birthing facility in the U.S. should have...”

Obstetric Hemorrhage
Preeclampsia/ Hypertension
Prevention of VTE in Pregnancy

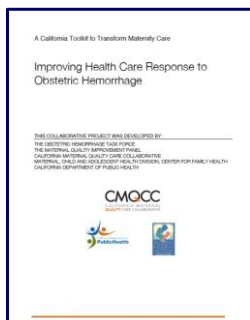
Note: The bundles represent outlines of highly recommended protocols and materials important to safe care **BUT** the specific contents and protocols should be individualized to meet local capabilities.

These bundles are being released from the Council on Patient Safety in Women’s Health Care

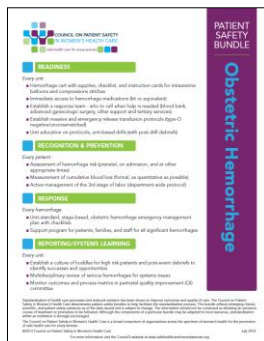


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Key OB Hemorrhage QI Toolkits: Full of Resources



www.CMQCC.org
v2.0 available soon



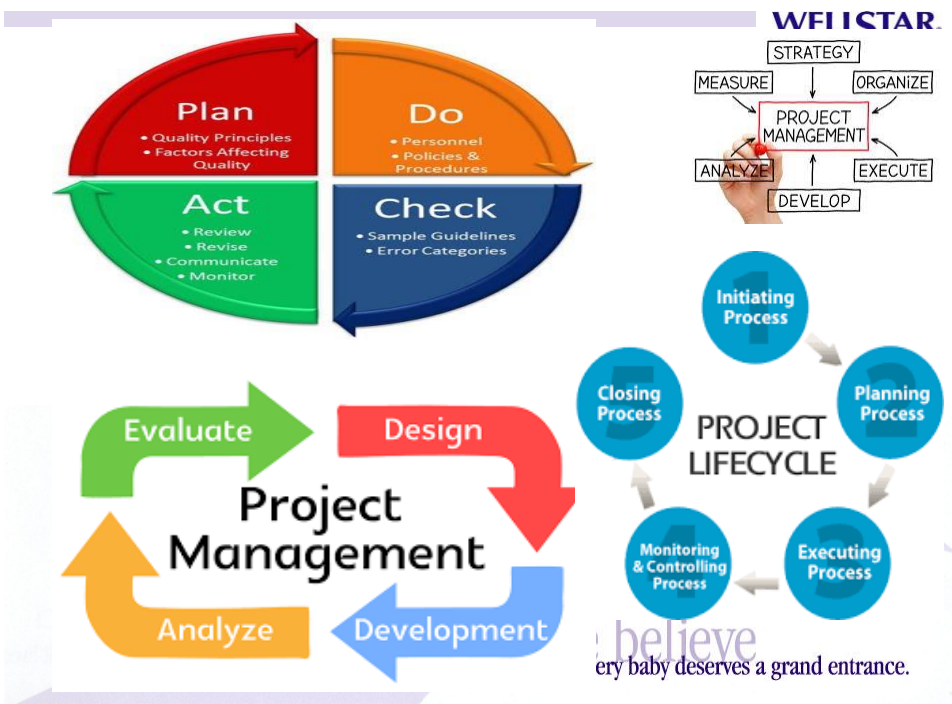
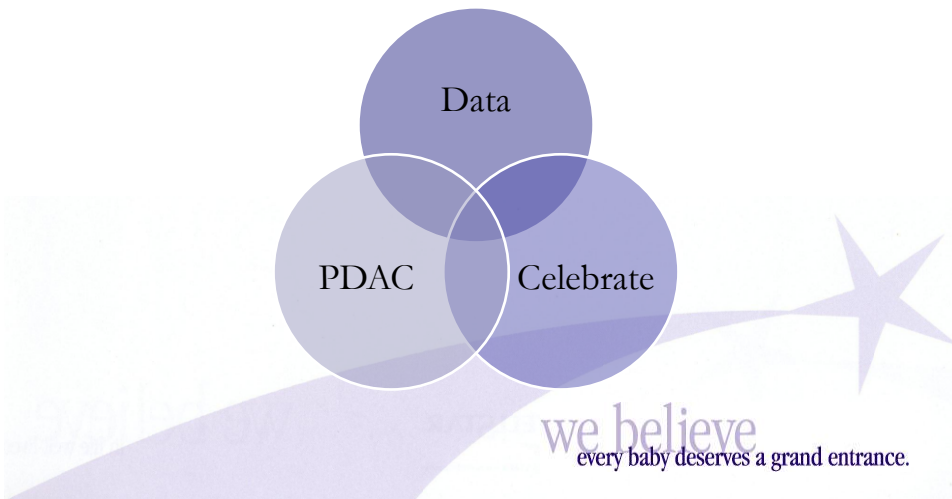
www.safehealthcareforeverywoman.org



www.pphproject.org

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Motivate



4 Domains: OB Hemorrhage Patient Safety Bundle

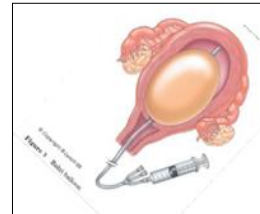
- Improve **readiness** to hemorrhage by identifying standardized protocols (general and massive)
- Improve **recognition** of OB hemorrhage by performing on-going objective quantification of actual blood loss
- Improve **response** to hemorrhage by utilizing unit-standard, stage-based, obstetric hemorrhage emergency management plans with checklists
- Improve **reporting/systems learning** of OB hemorrhage by performing regular on-site multi-professional hemorrhage drills

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Obstetric Hemorrhage Key Elements

Readiness - Every Unit

1. Hemorrhage cart with supplies, checklist, and instruction cards for intrauterine balloons and compressions stitches
2. Immediate access to hemorrhage medications (kit or equivalent)
3. Establish a response team - who to call when help needed (blood bank, advanced gynecologic surgeon, other support and tertiary services)
4. Establish massive and emergency release transfusion protocols (type-O negative/uncrossmatched)
5. Unit education on protocols, unit-based drills (with post-drill debriefs)



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Recognition - Every Patient

5. Assessment of hemorrhage risk (prenatal, on admission, and at other appropriate times)
6. Measurement of cumulative blood loss (formal, as quantitative as possible)
7. Active management of the 3rd stage of labor (routine use of oxytocin)



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Obstetric Hemorrhage Key Elements WELLSTAR

Response - Every Hemorrhage

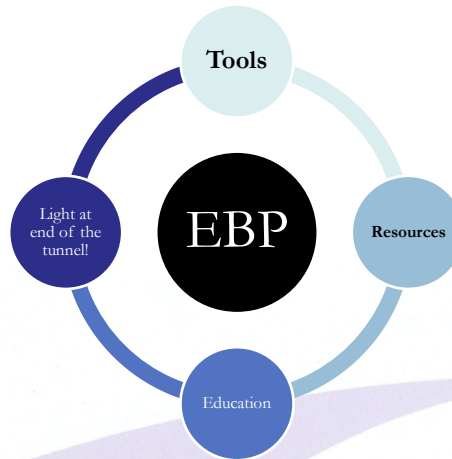
9. Unit-standard, stage-based, obstetric hemorrhage emergency management plan with checklists
10. Support program for patients, families, and staff for all significant hemorrhages

Assessments	Meds/Procedures	Blood Bank
Stage 0 Every woman in labor/giving birth • Assess every woman for risk factors for obstetric hemorrhage • Ongoing quantitative evaluation of blood loss on every birth • Active management of the 3rd stage of labor	• Active Management 3 rd Stage • Oxytocin 10 units or 10-30 IU • Fundal Massage • Uterine Massage • Uterine Massage	• High Risk: TIC 2 U • Positive antibody screen (operator of course, exclude low level anti-D from Rhogam) TIC 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%) • Activate OB hemorrhage Protocol and Checklist • Notify Charge Nurse, Anesthesia Provider • VS, O2 Sat q2 • Check for coagulopathy • Blood loss q2-15 • Vaginal bleeding • Cervical inspection with good exposure of vaginal walls, cervix, or show baby with uterine	• IV Access: at least 18 gauge and repeat fundal massage • Massage 5-10mg IU (if not hypernatremic) has more effect response to first dose, BUT uterine massage to 2 nd level uterine strap (see below) • Empty bladder: straight cath or show baby with urethra	• TIC 2 Units PRBCs (if not already used)
Stage 2 Continued bleeding with total blood loss under 1500ml • DB back to bedside if not already done • Extra help 2 nd OB • Rapid Response Team • Call transfusion, send type and cross, send blood bank • 15-30 cumulative blood loss q 5-15 min • Vaginal bleeding • Complete evaluation of vaginal wall, cervix, placenta, uterine cavity • Send additional labs • If in Progression, Move to L&OR • Evaluate for special cases • Uterine inversion • Amn. Fluid Embolism	• 2 nd Level Uterotonic Drugs • Methylene Blue 100 mg 500 mg • TXA 1g Access at least 18 gauge • Repeat fundal massage • Repeat 5-10mg IU (if not hypernatremic) • Repeat one level • DIC: no retained placenta • Placenta retention balloon • Selective Embolization • Interventional Radiology • Obstetric Gynecology • Urology • Anesthetist (if not already present) • Uterine and retained placenta • B-Block Suture • Placenta Retention Balloon	• Notify Blood Bank of OB Hemorrhage • Bring 2 Units PRBCs to bedside, transfuse per clinical signs - do not wait for lab values • Blood warmer for transfusion • Consider Transfusion 2 FFP (platelets 20-30mg), Low Fibrinogen <100 • Determine availability of additional PRBCs and other Coag products
Stage 3 Total blood loss over 1500ml, or >2 units PRBCs given or VS unstable or suspicion of DIC • Activate CTR • Activate OB Hemorrhage Protocol • CR Staff • Anesthesia Provider • Adult Resuscitation • Repeat labs including coag and electrolytes • Central line • Social Worker/Family Support	• Activate Resuscitation • Lavage • 2 nd level uterine strap • Uterine Artery Ligation • Oxytocin • Patient support • Fluid warmer • Uterine body warming device • Sequential compression device	• Transfuse Aggressively • Resuscitation Plan • Use 1:1 PRBC:FFP • FFP 20-30mg pack per RBCs PRBCs • Cryoprecipitate • Platelet 10 units PRBCs • Add full coagulation factor replacement, may consider a factor VIIa

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Empower!



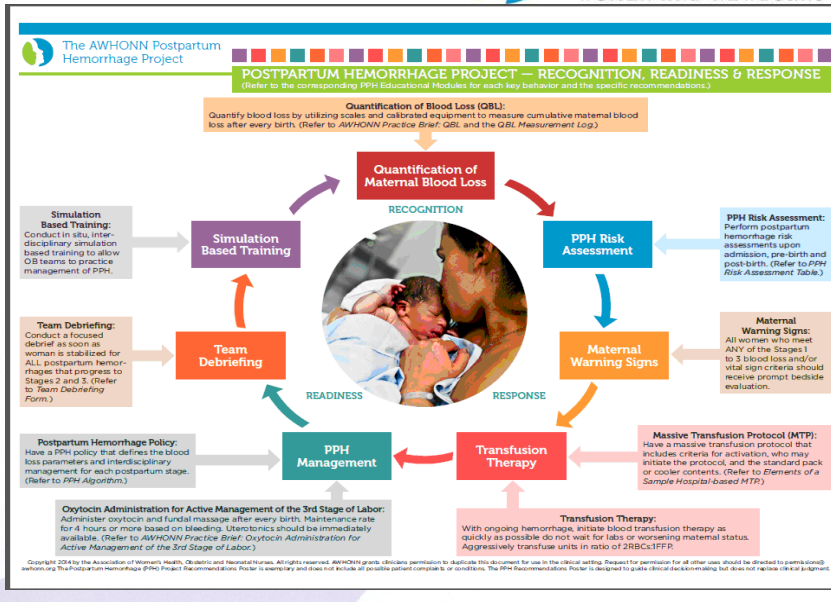
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Use all Avenues for Buy In!

- OB department meetings
- Staff meetings
- Hospital news letters
- Signage
- Email
- Huddles
- In-services
- Impromptu

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Practice Brief Quantification of Blood Loss (QBL)



AWHONN
ASSOCIATION OF WOMEN'S HEALTH, OBSTETRIC AND NEONATAL NURSES

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 routinely measured or quantified after every birth.

Magnitude of the Problem

- Blood loss from obstetric hemorrhage because effective interventions are not initiated early enough (Blong et al., 2010; Sills, 2010; Wang et al., 2011).
- New York State Department of Health (2010, 2012) issues health care providers to postpartum maternal deaths by reducing recognition of and response to hemorrhage.

Inaccuracy of Visual Estimation of Obstetric-Related Blood Loss or Estimated Blood Loss (EBL)

- In a survey of 100 OB/GYN residents, researchers demonstrated that visual EBL results in underestimation and overestimation (Blong, 2010; Bruchman, 2010).
- In 1995, Papan et al. (2006) reviewed 198 QBL.
- Visual estimation consistently resulted in underestimation of large volumes (Blong, 2010; Duffner et al., 1992; Duffner, 2010; Clark & Roberts, 2010) or overestimation (Blong et al., 2010). With smaller volumes, EBL, overestimation or underestimation was not consistent.
- The use of visual EBL, can result in underestimation of blood loss by 10-30% (Blong et al., 2010).
- Other training, literature already reviewed evidence with visual EBL (Blong et al., 2010) and measurement and measurement error months of training completion (Tobias, Lissner, Gustaf, Wong & Gustafson, 2010).
- Multiple specialty and a range of obstetricians were not trained to quantify of visual EBL (Blong et al., 2010; Tobias, Lissner, Gustaf, Wong & Gustafson, 2010), and medical students as well as obstetrician residents (Blong et al., 2010).

Inappropriateness of Inaccurate Evaluation of Blood Loss

- Given the difficulty in consistently measuring blood loss, it is imperative to utilize accurate EBL as the foundation of QBL.
- Many clinicians rely on the Papan, impractical method of visual EBL.
- A procedure measurement of obstetric blood loss has the following implications:
 - Underestimation can lead to delayed transfusion and unnecessary treatments such as blood transfusions that appear normal to unnecessary tests.
 - Overestimation can lead to delay of necessary transfusion/hemorrhage interventions.

https://www.youtube.com/watch?v=F_aC-bEn0&list=UUPrOhL3O0d7ZeFDq27ycS0Ug

- ### 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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Celebrate Your WINS!!!

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