Reducing Obstetric Hemorrhage:
Implementation of a Peripartum Hemorrhage Reduction Bundle

AIM
Reduce peripartum hemorrhage rate of 8.5% at UNC by 25% within 18 months (Peripartum hemorrhage is blood loss around the time of delivery resulting in a 10% or higher drop in a patient's hematocrit or that requires immediate transfusion)
PROBLEM
Rates of PPH at NC Women's Hospital exceed 8.5% annually, and over 3% of all patients require transfusion of blood products, consuming vital resources and introducing significant morbidity. Importantly, 97% of significant obstetric hemorrhages occur while the mother is still hospitalized.
IMPORTANCE
Hemorrhage is a leading cause of maternal morbidity and mortality in the US and globally, responsible for 25% of maternal deaths. Implementation of an OB hemorrhage "bundle" in a California system decreased transfusions by 25% and hysterectomies by 15% (Shields, 2014). There is substantial evidence supporting numerous clinical processes as effective at preventing and treating peripartum hemorrhage - reducing morbidities and rates of transfusion. Implementation of these strategies has been incomplete, however, and hemorrhage remains a leading cause of preventable morbidity and mortality. The key drivers of underperformance on these critical processes are multifactorial, and vary by region and locale.
EXPECTED OUTCOMES
1. Reduced incidence of severe peripartum hemorrhage and associated maternal morbidities a. Decreased use of blood products b. Decreased incidence of maternal ICU admission c. Increased use of preventative and early intervention measures 2. Improved teamwork among obstetrical providers and staff 3. Improved identification of high-risk patients
MEASURES
Outcome: PPH Incidence, Transfusion Rate, Severe PPH (ICU Admission or transfusion >3 units), Patient Safety Score *Process:* Simulation Implementation, number of drills & simulations run, Simulation Performance, Accuracy of EBL Assessment, Adverse Outcomes Index, % adherence to Active Management of Third Stage of Labor *Balancing:* Adverse Outcomes Index
RISKS/BARRIERS
Overcoming potentially deeply entrenched practices and mindsets among our providers and staff; limited funding and staff to implement and sustain program.
STAKEHOLDERS
Our patients and their families. Labor and Delivery Staff (Physicians, Nurses – including leadership and floor nurses, Midwives), Postpartum leadership and nurses, OR and ICU teams, Hospital administration, Blood Bank, Anesthesiology.

SCOPE	
In Scope:	Out of Scope:
All patients admitted for labor and delivery at UNC UNC Clinical Providers and Staff	Non-UNC-based clinicians

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SCHEDULE
July 2015- Patient Safety Survey **Aug 2015**- Project Kickoff, Initial Team Meeting, Formation of Subgroups **Sep 2015-** Hemorrhage Carts, Data Collection, and Simulation Group meetings, Process Mapping **Oct 2015-Dec 2015 –** Pilot implementation of Simulations and Hemorrhage Carts; chart reviews and provider observations; estimations of blood loss simulations **Jan. 2016-Mar. 2016 –** Revisions/Improvements of Hemorrhage Carts and Simulations, Continued Data collection, Structured Debriefings, RCA, Preparation for Clinical Education **Apr – June 2016 –** RCA with chart review data, finalization of structure for sims/drills, analysis of provider observations, clinical education; final report

PROJECT TEAM	
Dr Thomas Ivester	Project Lead
Shelley Summerlin-Long	Project Manager
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