Postpartum Hemorrhage Quality Improvement

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AWHONN
PROMOTING THE HEALTH OF WOMEN AND NEWBORNS

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Background

Background:

•Postpartum hemorrhage (PPH) is a leading cause of maternal morbidity and mortality in the US including the District of Columbia (DC). Nationally the rate for PPH is 2.9% of all births. It is included in the top 3 causes of maternal mortality and morbidity along with hypertension and embolism. [1]

• The California Maternal Quality Care Collaborative (CMQCC) demonstrated a feasible PPH quality improvement initiative. [2]

• Prior to July, 2014 at MWHC 0% of our patients were risk screened for a PPH, all blood loss was estimated, and debriefings were only done for Serious Safety Events.

Simulation drills were in place prior to the project but continued throughout.

According to our EMR, the average number of PPHs was 22 per month.

Aims

1. Increase clinicians' early *recognition* of women at greatest risk for PPH.
2. Increase clinicians' *readiness* to respond to PPH.
3. Track clinicians' *response* to PPH.

AWHONN PPH Project

Goal: To implement the Association of Women's Health, Obstetric and Neonatal Nurses (AWHONN) Postpartum Hemorrhage Project: A Multi-hospital Quality Improvement Program.[3]

Design: Quasi-experimental based on Healthy People 2020 rapid-cycle Mobilize, Assess, Plan, Implement, Track (MAP-IT) methodology.[4]

Acknowledgements

- MWHC Women' & Infant Services' nurses, midwives, & physicians
- This project was supported by AWHONN and a grant from Merck for Mothers (*http://merckformothers.com*).

Methods

Setting: Urban tertiary academic medical center, 3400 births/year. All clinicians participated including nurses, midwives, faculty physicians, and resident physicians. Practice changes implemented for all patients July 2014 through December 2015.

Intervention / Practice Change:

- Standardized evidence-based education modules
- Multidisciplinary PPH drills (MOST: MedStar Obstetrical Simulation Training
- PPH Risk Assessment
- Quantification of Blood Loss (QBL) procedures
- PPH Debriefing procedures
- Massive Transfusion Protocol

Clinical & Process Outcomes:

Comparisons: Medical record audits

Pre-intervention July 2013-June 2014

Post-intervention July 2014-December 2015

- % PPH risk assessment completion
- % QBL documentation
- # blood transfusions

Post-intervention Tracking:

- % Clinicians completed modules
- % Clinicians participated in drills

Analysis: On-line data entry into de-identified AWHONN national database, descriptive statistics

Results

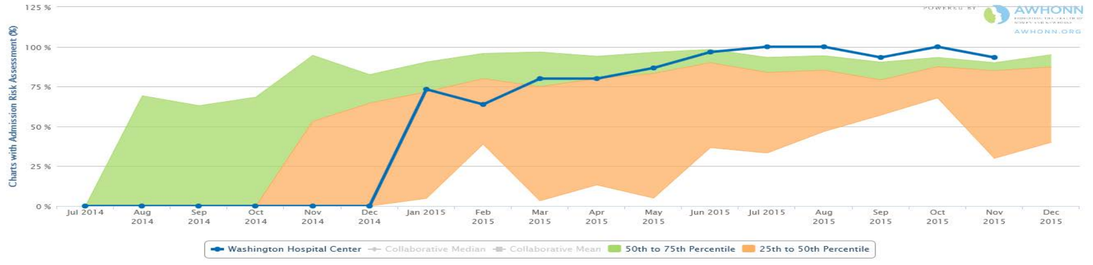

Figure 1. % PPH admission risk assessment documentation

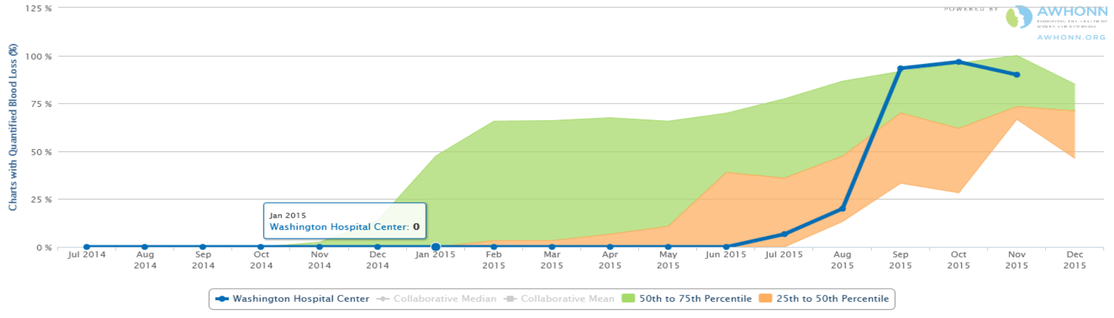

Figure 2. % Documented QBL vaginal and cesarean births

Discussion

Summary of Findings:

- A significant number of clinicians completed education modules (92%) and participated in drills (58%) during duration of PPH project.
- Compliance with use of the PPH Risk Assessment Tool (consistently >90% since June 2015) and QBL (consistently >90% since August, 2015)
- 127 women received blood transfusions
- PPH debriefing currently in implementation.
- Interdisciplinary input created a Massive Transfusion Protocol.

Interpretation: AWHONN strategies are feasible to implement and have improved PPH processes.

Facilitators:

- Laboratory support
- Nursing Informatics
- Provider champions (physicians, residents, midwives)
- Nursing

Barriers:

- Competing hospital initiatives
- Dedicated personnel

Limitations:

- Non-standard clinical definitions and measures

Conclusions/Implications:

Next steps are to continue project and expand aim to:

- Decreasing blood transfusion rates
- Decreasing ICU admissions
- Expanding debriefing process

References

1. Bingham, D. & Jones, R. (2012). Maternal death from obstetrical hemorrhage. *JOGNN Journal of Obstetric, Gynecologic, & Neonatal Nursing, 41*(4), 531-539.
2. Bingham, D., Lyndon, A., Lagrew, D. & Main, E. (2011). A state-wide obstetric hemorrhage quality improvement initiative. *MCN The American Journal of Maternal Child Nursing, 36(*5), 297-302.
3. Association of Women's Health, Obstetric and Neonatal Nurses (AWHONN)(*http://www.pphproject.org*).
4. MAP-IT (http://www.healthypeople.gov/2020/tools-and-resources/Program-Planning)

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