Improving the Management of Obstetric Hemorrhage with the use of Quantified Blood Loss

Quality Improvement Project

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Background

- OB Hemorrhage
  - One of the leading causes of maternal morbidity and mortality
  - Racial and ethnic minorities have a 26% higher incidence than Caucasian women
  - Highly preventable

- Blood loss is often underestimated, delaying treatment and interventions

- Using objective QBL (Quantification of blood loss)
  - Helps recognize and treat hemorrhage earlier
  - May reduce morbidity and mortality caused by OB Hemorrhage
  - Avoids subjective human error and implicit bias
Local Problem

- Estimated blood loss was routinely used in our Obstetric unit whose population is largely women of color.

- A need to implement an objective method of evaluating blood loss was identified.
Method

- We implemented the strategies recommended by the Illinois Perinatal Quality Collaborative (ILPQC) to improve the use of QBL.
- Education given on proper weighing techniques and documentation
- Incorporation of QBL as a component of the mandatory Obstetric Hemorrhage simulations
- Use of calibrated under buttocks drapes and suction canisters
- Purchase of additional scales for weighing
- OB Hemorrhage cart and medication kit stocked and ready for use
- Collaboration of OB physicians and nurses to calculate the QBL during each delivery
- Collaboration with Anesthesia for proper documentation of QBL
- Completion of chart audits to evaluate improvement.
Results/Conclusions

• 100% of the care team were educated on QBL. To determine our compliance rate of using quantified blood loss versus estimated blood loss, chart audits were conducted. In February 2022 our baseline use of QBL exclusively was 0%. This rate improved to 70% by January 2023.

• Our OB team continues making great stride in using QBL. In July 2023, QBL chart audit results reflected a significant increase of use of QBL. As of May 2023, the use of QBL improved to 85%.
In February 2022, QBL chart audit results reflected an initial baseline of 0% use of QBL. As of January, 2023 the use of QBL improved to 70%.
Figure 2.

QBL chart audit results reflected a significant increase of use of QBL. As of May 2023, the use of QBL improved to 85%.
Figure 3. OB RN obtaining a quantified blood loss in real time in the operating room
Figure 4. Blood and saturated items to be quantified
The strategies implemented at our hospital have improved the use of QBL and should improve patient outcomes in management of obstetric hemorrhage. Education and auditing will be ongoing to ensure the change in culture is maintained. Further surveillance will be needed to demonstrate the effectiveness of QBL on clinical outcomes and reduction of maternal morbidity and mortality in cases of Obstetric Hemorrhage.