

Postpartum Hemorrhage Reduction Strategies

We aimed at reducing Postpartum Hemorrhage and increasing timely treatment at MGH using multiple different methods

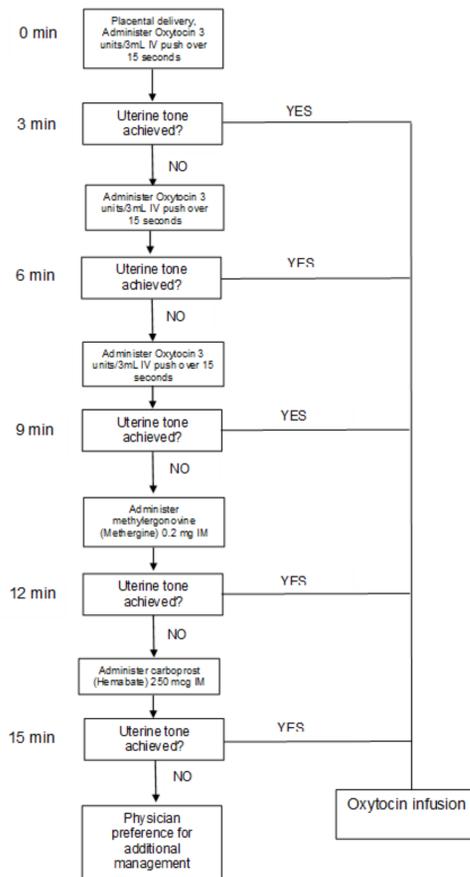
- We implemented the 3-3-3 method of Pitocin administration for our cesarean section patients in December of 2023.
- We added visual reminders to the computers in our patient rooms for delegating tasks and medication order for nursing.
- We implemented Prophylactic TXA to cesarean section patients who scored 1 or higher on the postpartum hemorrhage risk assessment score. This went live 10/1/24.
- We purchased new Postpartum Hemorrhage Carts with refrigeration units to store medication for PPH. This went live February of 2025.
- We created a PPH Code procedure and button to uniquely identify needs and response. This rolled out with the new PPH Carts in February of 2025.

Rule of 3s

- A study completed at Brigham in 2015 examined the "Rule of 3s", where they compared a continuous oxytocin infusion vs IV boluses of oxytocin given in the cesarean section suite.
- They developed a protocol where they gave 3 units of oxytocin up to 3 times at an interval of 3 minutes between each dose, evaluating uterine tone at each point.
- If after 9 units of oxytocin uterine tone was not achieved, then Methergine and Hemabate could then be utilized.
- Once uterine tone was achieved, a continuous oxytocin infusion was started.

Implementation within North Memorial Health system

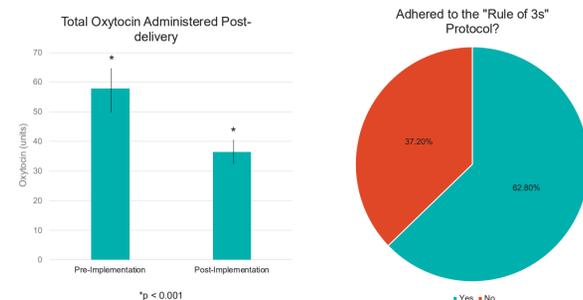
- Go-Live of the new 3-3-3 method.
- New oxytocin syringes were compounded by pharmacy and stocked in the anesthesia workstations in the C-section suites at both hospitals.
- Oxytocin 9 units/9 mL IV syringe.
- We use 1 syringe per patient, giving up to 3 x 3 unit/3 mL doses from the syringe.
- These syringes replaced the 1st oxytocin bag given over 1 hour in the C-section suite after placental delivery.



Administration rate of Methylergonovine, Carboprost, or both



Total Oxytocin administered post-delivery



Cost savings

- Methylergonovine (Methergine) 0.2 mg/mL - \$19.82/dose*
- Carboprost (Hemabate) 0.25 mg/mL - \$66.79/dose*

\$1,879.32 per year

Visual PPH reminders in all Postpartum patient rooms

PPH Roles for PP RNs

- Primary RN:**
 - STAY WITH THE PATIENT!
 - Push OB RR and Staff Assist buttons
 - Firm and hard fundal massage
 - Delegate roles as help arrives
 - If Pitocin is running, increase to bolus
 - Set up vital signs for every 5 minutes
 - Med Manager:**
 - Get PPH kit out of Omnicell (all meds)
 - Administer meds
 - Administer fluids, blood, if needed
 - Recorder:**
 - Record vitals and other info on PPH sheet
 - Measure pads and update QBL
 - Supporter:**
 - Partner support
 - Help with baby during event
- MEDICATIONS:**
- Pitocin should always be going right away, whether IV or IM
 - Others, in order:
 - Methergine (if no high bp)
 - Hemabate (if no asthma)
 - Cytotec
 - TXA (can be given at any point)

Prophylactic TXA

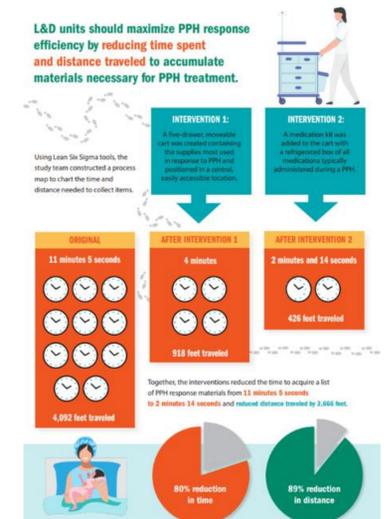
- 10/1/2024 at Maple Grove Hospital
- Use of Tranexamic Acid (TXA) in C-Section patients with a Post Partum Hemorrhage (PPH) score of 1 or higher
- Given via IVP by CRNA or MDA



PPH criteria

- History of bleeding disorder or coagulopathy
- Hypertension disorder with this pregnancy
- History of C-Section
- Prior uterine surgery
- Multiple gestation
- Polyhydramnios
- 4 or more previous vaginal births
- History of PPH
- Large uterine fibroids
- Estimated fetal weight of 4kg or more
- BMI over 35
- Fetal demise
- Low lying placenta
- Suspended placenta accreta or percreta
- Known coagulopathy
- Platelet count under 100,000
- Therapeutic Anticoagulation therapy (not prophylactic)
- Chorioamnionitis
- Induction of labor
- Augmentation of labor with Pitocin
- Placental abruption
- Prolonged 1st stage of labor
- Prolonged 2nd stage of labor
- Prolonged Oxytocin use over 18 hours
- Instrumental delivery
- Hemoglobin under 8
- Hematocrit under 30
- Being on magnesium

Study of the time-saving benefits of a PPH cart with a refrigerated drawer for medications



Our new cart (purchased two for Postpartum and two for L&D)



New PPH code button implemented

Benefits:

- OR is now notified of a PPH in case an OR is needed. Our previous code of OB Rapid Response covered more than just a PPH so OR was not a part of the notification team. We kept the OB RR for other OB emergencies that do not include PPH.
- It is clear to staff what is happening in the room so that the correct individuals and equipment gets to the room in a timely manner.



Questions?

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