Background

- Postpartum hemorrhage (PPH) is among the top causes of maternal morbidity and mortality in the United States, accounting for 11% of total pregnancy-related deaths (1).
- In Colorado, PPH accounts for 15% of pregnancy-related deaths and is tied with mental health and cardiovascular complications as the top cause of maternal morbidity and mortality (2).
- Over the past few years, maternal mortality has continued to climb in the United States despite efforts to decrease pregnancy-related deaths.
- In California, implementation of the “Obstetric Hemorrhage Toolkit” in 2010, which introduced a proactive system for faster access to blood products, led to a 20.8% decrease in maternal morbidity and mortality (3).
- In January 2019, our community-based hospital in Colorado Springs adopted a three-step Code White protocol based on this toolkit in an attempt to decrease maternal morbidity and mortality associated with PPH.

Results: Utilization of Protocol

- 70% of PPH are not being called as either a Code White alert or activation
- 60% of vaginal PPH have an EBL > 2x the criteria

Results: Attitudinal Data

**Common Themes**

- Physicians don’t think a Code White is necessary
- Nursing fear of backlash from physicians
- Code Whites are too chaotic and they scare the patients
- Hoping the bleeding will resolve
- More education on Code White system, more training on Code White equipment, and increase comfort level with calling a Code White
- Delay in blood products/miscommunication with the lab
- Physicians are preoccupied with controlling the bleed and therefore want nurses to speak up if they think a Code White is necessary
- Repercussions of reporting PPH
- Negative cultural view surrounding PPH

**Nurses Fear of Backlash From Physicians (n = 47)**

- Provider Perceived Delay in Blood Products When Code White Not Called (n = 54)

Discussion

- PPH is among the top causes of maternal morbidity and mortality in both the United States and in Colorado specifically.
- In January 2019, our community-based hospital implemented a three-step Code White protocol in order to combat this devastating complication.
- From a chart review on occurrences of PPH and implementation of the Code White protocol, it was discovered that 70% of PPH were not subsequently being followed with the proper Code White protocols.
- This represents an extreme underutilization of the Code White system.
- Additionally, 60% of vaginal PPH were discovered to have an EBL > 2x the criteria, meaning that a potential delay in blood products could be detrimental.
- Through a survey distributed to the obstetrics and gynecology staff, it was discovered that there were various reasons behind the underutilization of the Code White process.
- Most significantly, physician hesitance to calling a Code White and nurses fear of backlash from the physicians prevented proper utilization of the protocol.

Future Directions

- Create a nursing protocol that states the charge nurse or bedside nurse MUST call a Code White alert when EBL is ≥ 500mL for vaginal deliveries and ≥ 1000mL for cesarean deliveries.
- Improve physician attendance and engagement in Code White simulations and teachings in order to have more effective multidisciplinary cohesiveness.
- Work to create a culture of safety that removes hierarchy and brings the focus back to the patient so that nurses can feel more comfortable speaking up.

References