**“Code Blue”: Applying Trauma Principles in the Obstetric Ward**

**P Vuong MD; ME Zimmermann BSN, TCRN; S Stankiewicz BS; M Rachwalski PA; P Saldinger MD; J Sample MD | New York Presbyterian Queens | Weill Cornell Medical College**

**BACKGROUND**
Postpartum hemorrhage (PPH) is a major cause of maternal morbidity and mortality worldwide. In line with national rates, we noticed an increasing incidence of major obstetric hemorrhage at our institution in the last two decades.\(^1\)\(^-\)\(^3\)

In response, our institution implemented systematic changes to improve our response to and the outcomes of the women involved. This included a protocol to reorganize the obstetric rapid response team to include trauma personnel via the “Code Blue”.

**PURPOSE**
To improve the morbidity and mortality of women with major obstetric hemorrhage by utilizing trauma team resources and applying trauma principles in their management.

**Resources**
Since 2005, the obstetric rapid response team (ORRT) consisted of an obstetrician, anesthesiologist, nurse anesthetist, obstetrics resident, nurse, nurse manager, and neonatologist.

With the institution of the “Code Blue” in 2014, the trauma consult resident, a PGY3-4 general surgery resident, responds to the Obstetrics ward. This resident checks in with the ORRT and calls the trauma attending if additional trauma resources are warranted. As the trauma team is inhouse, the only additional resource expenditure is the response time of the trauma resident and the trauma team if critical care support or operative intervention is needed.

**Morbidity** significantly improved among women who experienced massive hemorrhage from period 1 to period 3 during which the “Code Blue” was initiated. As seen above, all end points of the trauma triad of death were improved.\(^1\)

**Barriers and lessons learned**
- Upon initiation of the protocol, the entire trauma team including trauma surgeon responded to Obstetric ward
- As with traumas, we had overactivation which was time and resource intensive
- By limiting the initial response to the trauma resident, the issue of overactivation was less disruptive to the trauma team work flow

**Conclusions**
Women with severe postpartum hemorrhage are similar to the complex multi-injured patient in many ways. As trauma teams are experienced in the care of the exsanguinating patient with little physiologic reserve, the life-saving principles of trauma can be used to improve the chances of survival in these patients. As such, systematic collaboration and coordination of the trauma team with the obstetrics team can lead to better communication, effective care, and ultimately, lives saved.

**References:**