Code Neon: Improving OB Rapid Response Teams Using Simulation and Family Models

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CONTEXT
Teamwork and communication failures contribute to 70% of adverse obstetrical events. These events often involve poor communication among staff and with patient/family. ACOG and Joint Commission call for creating Obstetric Rapid Response Teams. There are few guidelines on how to train staff and which emergencies to focus on. Staff has little training on supporting patients’ families during emergencies.

PROBLEM
Staff has little formal training on how to function as a team and support patient/family during OB emergencies.

AIMS
To use multidisciplinary simulation and live family models to improve RRT teamwork and communication with patient/family.

STRATEGY FOR CHANGE
Create a Rapid Response Team (RRT) of nurses, residents, attending physicians and ancillary staff from obstetrics, neonatology and anesthesiology. Each multidisciplinary session will include:

- Training in PDSA methodology
- Didactic content on specific OB emergency
- Live simulation on unit using actors to portray patient/family
- Live simulation is witnessed by entire RRT
- Debrief focuses on identification of goals, changes need to achieve those goals, and patient/family perspectives of the emergency
- Creation of action plan based on groups’ PDSA findings
- PDSA changes trialed clinically by team during real calls
- Successful changes implemented and reviewed at next training session

TESTS OF CHANGE
- Obstetrical hemorrhage
- Perimortem C-section
- Shoulder dystocia
- Emergency C-section for cord prolapse

MEASUREMENT OF CHANGE
- Designated OB RRT member to communicate/support family members during emergency
- Debriefs focus on patient/family perspective during emergency
- Number of pages required to assemble RRT
- Number of steps required to access emergency supplies and medications
- Staff satisfaction with teamwork and communication

RESULTS
- PDSA analysis of OB RRT response led to implementation of the hospital-wide CODE NEON alert.
- In post-simulation surveys, 98% responded positively to “During OB emergencies, staff responds quickly when called.”
- PDSA exercise and live simulation revealed inefficiencies in medication access. Post-PDSA medication access was reduced from 12 steps to 2 steps.
- In post-simulation surveys 84% responded positively to “During OB emergencies, supplies and medications are readily available.”

LESIONS LEARNED
PDSA/ multidisciplinary patient centered simulation training:
- Improves patient care by guiding RRT to identify and rectify most common OB emergency errors
- Creates objective team building and problem solving
- Helps RRT identify process and system barriers
- Empowers staff to implement clinical changes
- Provides safe environment to hear patient/family perspective

FUTURE STEPS
- Introduce PDSA cycle to full OB staff as method to identify and solve problems
- Create EBP protocols based on PDSA changes
- Model use of PDSA/simulation training to other departments in the institution as a focused, collaborative approach to successful problem solving.

MESSAGE FOR OTHERS
Multidisciplinary simulation involving family models empowers staff to create cultural change.