

OB Trauma Activation Project

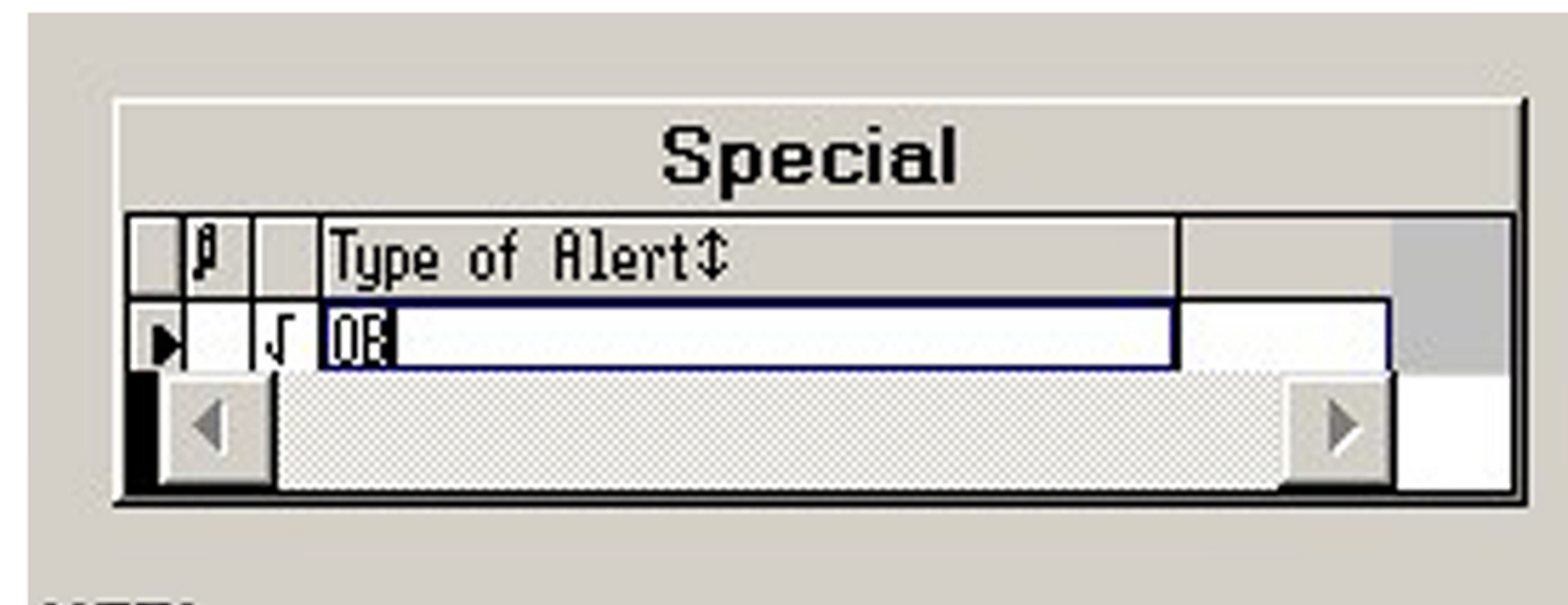
Heather Estrada, BSN, RN, CCRN; Rochelle Armola, MSN, RN, CCRN, TCRN; Heather Finch, MSN, RN, CEN, TCRN; Renee Hildebrand, BSN, RN; Valerie McColligan, BSN, RN, TCRN; Marissa McLean, MSN, BSN, RN, CEN, TCRN; Elizabeth Spradlin, BSN, RN, TCRN; Christal Villanueva, BSN, RN, TCRN, CCRN-K

INTRODUCTION

Affiliated system facilities identified a need to standardize obstetrical (OB) team notifications for maternal trauma activations, as a result OB trauma alerts were developed and implemented at both facilities. Goals identified were a need to decrease the response time of necessary personnel, to better define roles and responsibilities, and to prepare staff for maternal trauma patients.

PROCESS

- Trauma Services, collaborated with ED and OB to determine the personnel required and refined roles and responsibilities.
- Working with the Alarm Dispatch/Switchboard Supervisor, two new notification systems were created - OB Full Alert, OB Limited Alert.
- Multiple OB Trauma pages were tested. Problems were identified and each addressed accordingly.
- Mock OB Full Alert simulation training was completed, as a result the following opportunities were identified:
 - Roles and placement of team members in OR and ED were identified.
 - OR rooms were not equipped with enough air/O2 regulators for two persons (Mother/Baby). The OR supplemented the baby warmer with additional oxygen and air regulators.
 - Worked with the OR to identify proper location of the baby warmer and egress plan.



	Full Trauma Team Activation	Limited Trauma Team Activation
Recorder RN	Present for both Full and Limited TTA. Responsible for recording all events, including those related to the primary/secondary survey findings as dictated by the team lead or designee, on the designated trauma record until released by the primary RN. Maintains communication to trauma team members to include: time elapsed, vital signs, medications given, patient changes	
Respiratory Therapy Technician	Responds to Full activations, to assist with airway maintenance, obtain ABG, prep and maintenance of ventilation equipment, and may assist with CPR	
Fluid RN / ICU Charge RN	Responds to Full activations. Fluid RN operates rapid transfuser, assists with blood administration, and completion of blood administration documentation. ICU Charge RN serves to facilitate admission/transfer to ICU. May serve to support fluid RN role.	
OR Charge RN	Responds to Full activations and facilitates trauma surgical needs as directed by the Trauma Surgeon (i.e. coordinating emergent OR transfer)	
ED Technician(s)	Present for both Full and Limited activations and exposes patient, places armband, obtains labs, prepares procedure trays/equipment, and other duties assigned. An additional runner tech is assigned to retrieve blood coolers from blood bank for MTPs	
PICU RN	(Refer to Secondary RN). Responds to both Full and Limited activations and also serves to facilitate transfer admit to PICU	
Pharmacist	Responds during staffed hours to both Full and Limited activations to prepare medications and ensure correct dosages are given	
Peds Pharmacist	(Refer to Pharmacist) Responds to Peds Full and Limited activations.	
Radiology	Respond to both Full and Limited activations with portable equipment. CT tech clears table and prepares to receive patient for trauma scans	
OB Hospitalist	Responds to both OB Full & Limited activations. Responsible to examine, perform limited ultrasound at bedside, determine need for peri-mortem cesarean delivery. Confers with Trauma Surgeon and ED MD to determine need for additional radiologic studies/labs and will collaborate with ED & Trauma Surgery to determine appropriate disposition for patient. Will assume care of the pregnant patient – once Trauma Services clears.	
OB Charge RN	Responds to OB Full & Limited activations. Ensures all necessary equipment arrives to alert (portable ultrasound, fetal Doppler monitor, neonatal cart, & STAT cesarean instrument kit). Assesses patient & fetal status, ensures appropriate patient positioning. Maintains responsibility for fetus and will travel with patients for continued monitoring. Will call for Infant Code Blue in cases of peri-mortem cesarean delivery in the ED, or NICU Charge RN for imminent fetal delivery.	

Member	Full Team	Limited Team
Trauma Surgeon	X	
Trauma APP	X	
PGY-4 or 5 Surgery Resident	X	
ED Physician	X	X
ED Charge Nurse	X	X
Primary ED Nurse	X	X
Secondary Nurse	X	X
Recorder RN	X	X
Respiratory	X	
Fluid RN/ICU Charge RN	X	
OR Charge RN	X	
Radiology Technician(s)	X	X
PICU RN	X (peds)	X
Pharmacist	X	X
Pediatric Pharmacist	X (peds)	X
OB Hospitalist	X (OB)	X (OB)
OB Charge RN	X (OB)	X (OB)

RESULTS

In May 2018, the OB full and limited trauma alerts went live. Since that time we have had 5 OB limited alerts and 1 OB full alert. Review of cases demonstrates a decrease in average response time of 80% (a change from about 10 minutes to 2 minutes with Everbridge paging) and the majority of teams arriving to the resuscitation room before the patient. Since the inception of the OB Alert, there has been 0% mortality and 0% morbidity in both mothers and fetuses. Appropriate equipment locations, staff presence and duties have been corrected.

OUTCOME

Next steps include tracking patient outcomes, continuing to identify opportunities for improvement, crowd control of both personnel and equipment, additional training which will consist of perimortem Cesarean and neonatal resuscitation.

