

## Situation

Parkland Health Hospital is a Level One Trauma center located in Dallas, Texas. As the busiest E.R. in the Nation, a diverse range of patient injuries and illnesses of varying acuity are seen on a daily basis. In 2023, 295 STAT surgeries came to the Parkland Operating Room (OR) with a majority being trauma cases. Staff preparedness and confidence are essential to providing efficient quality care to patients in emergent situations where the seconds count.

OR staff reported a need for additional training in STAT trauma surgery and code blue scenarios. A workgroup of direct care nurses and surgical technologists planned and implemented a two-part educational intervention.

## Hypothesis

A mock trauma/code simulation training intervention will positively impact code performance (i.e. decreased defibrillation time) and self-confidence among operating room(OR) nurses and certified surgical technologists(CSTs).

## Background

Literature found mock codes to be beneficial in boosting staff confidence and decreasing time between asystole and defibrillation, primarily in Med-Surg settings. Minimal literature for Operating Room specific STAT/ code blue simulations created the need for further exploration on the topic.

# STAT TRAUMA SIMULATION IN THE OR

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## Didactic

The first session of the two-part series was an hour long lecture to OR staff reviewing the technicalities of a trauma and a code in the Operating Room. The presentation included, but was not limited to:

- available STAT carts and their location
- two doc consents
- how to draw & send labs (e.g. ROTEM)
- trauma equipment (e.g. Cell Saver & Belmont Rapid Infuser)
- what to do in the event of a code
- steps to take if a patient expires

## Simulation

The second session was a hands-on simulation of a trauma scenario in which the patient arrested intraoperatively. The staff acted out the scenario in real time, utilizing a manikin and provided props. Staff were able to actually open a pack, count a real set, and imitate a prep. Scripted roles allowed for a “surgeon” and “anesthesia” to move the scenario along, performing tasks like removing combat gauze from the manikin and stating the patient was in cardiac arrest. The staff then acted in response. A debrief intervention followed and the simulation was completed again to compare staff efficiency and defibrillation time.

## Results



Following the debrief intervention in the simulation:

- Time to get crash cart in the room decreased by a mean average of 2 seconds.
- time to defibrillate patient after loss of pulse decreased by a mean average of 20 seconds.

## Conclusion

- The use of both lecture and simulation offered a dynamic and multifaceted learning approach to OR staff. The lecture provided a strong foundation about protocol and essential knowledge, while the simulation provided an immersive and hands on learning experience.
- Operating Room staff felt more confident in their skills and knowledge following intervention of lecture and simulation. The combination of theory and practice established an increased understanding of potential roles they might have during a STAT Trauma/ code blue.
- Code performance among OR staff improved following debrief intervention during simulation. Better understanding of a code blue led to not only self improvement, but strengthened team dynamics.



Hands on STAT Trauma/ Code Blue Simulation in the OR



100% OF NEW STAFF (<2 YEARS) REPORTED DESIRE FOR ANNUAL SIMULATION

## References



Parkland  
Nursing

