

Center for Procedural Skills and Simulation collaboration with Ambulatory Surgery Center to increase staff knowledge on emergency skills

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PURPOSE

The purpose of the evidence-based practice project was to improve Ambulatory Surgery Center (ASC) clinician management in perioperative emergency situations.

BACKGROUND

Emergencies in the ASC can range from respiratory distress to malignant hyperthermia. As a result, the ASC staff identified a need for more training in emergency situations through learning needs assessment (LNA). Synthesis of evidence: At a large Midwest Academic Medical Center, an annual LNA is conducted to better understand the educational needs for staff. Here, it was identified as a need to improve emergency response skills. The ASC nurse educator aimed to maximize the number of learners experiencing simulation training, even if it meant that each learner might get less individual attention. The idea here is that some exposure to simulation is better than none, as it can still provide valuable learning opportunities. (Jeffries, P.)

PRACTICE CHANGE & IMPLEMENTATION

ASC leadership and Center of Procedural Skills and Simulation (CPSS) collaborated to offer simulations for operating room and pre/post recovery ASC front line staff at least six times a year in CPSS laboratory. These simulations consisted of six different emergent scenarios:

1. Code Blue
2. Respiratory emergencies
3. Code Fire
4. Malignant hyperthermia
5. Local anesthetic systemic toxicity
6. Code hemorrhage

The ASC nurse educator implemented a structured approach by dividing the OR team into smaller groups and utilizing multiple simulation rooms. This method likely helped ensure that each team member received hands-on practice, even if it was in a larger group setting. This also allowed team members to participate in a simulation at staggered times to ensure consistency in patient care. Running the simulations a second time, when time allowed, reinforced learning and improved skills through repetition. Learners reported appreciation for the opportunity to learn in a hands-on environment.

RESULTS

The pre-post simulation evaluations provided clear evidence of the simulation training's effectiveness over time (Table 1 and Table 2). The consistent improvement in knowledge and comfort levels among the front-line staff is a strong indicator that the training approach was successful. The simulation learning objectives include:

1. Demonstrate team communication and code role assignments in a surgical patient.
2. Perform priority actions based on assessment and clinical data.
3. Reassess/monitor patient status following interventions.
4. Communicate appropriately with other health care team members in a timely, organized, patient-specific manner.

ACS PRE AND POST SIMULATION DATA



SIMULATION

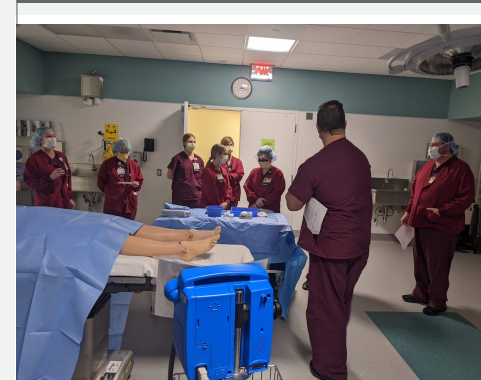


Figure 1
ASC nursing team members participating in a Code Fire simulation in CPSS.

CONCLUSIONS/FUTURE STUDIES

Simulation is defined as "the process by which we are trying to achieve results approximating clinical practice as closely as possible". It is a technique for replacing or completing real-life experiences with guided experiences, which are a faithful imitation of the real world in a fully interactive way. (Gaba DM). The simulations have had such a positive impact on staff knowledge and skills, especially in handling complex and rare medical events in ASC perioperative settings. The use of pre- and post-simulation evaluations, along with annual LNA, clearly demonstrates a thoughtful and data-driven approach to training.

Next steps already underway include repeating simulations with new groups from ASC, such as Patient Care Technicians, and including additional scenarios identified by ASC staff.

ACKNOWLEDGEMENTS

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