

Malignant Hyperthermia Simulation

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Background Information: Malignant Hyperthermia (MH) is a rare but high-risk complication of anesthetic drugs. Limited interaction with this emergency situation leads to a potential knowledge deficit for this patient population and clinical skills. Simulations constitutes of a variety of teaching methods and educational strategies to practice emergent situations and decision making skills in a safe learning environment.

Objectives of Project: By the end of the simulation scenario, the Registered Nurse will identify patients who may be at risk for MH, recognize agents that may trigger MH, identify clinical symptoms and manifestations of MH, demonstrate knowledge for PACU interventions, mobilize staff and equipment identifying where the MH Box is located and what item it contains, and demonstrate how to reconstitute Ryanodex.

Process of Implementation: A MH clinical scenario was developed in collaboration with the Simulation Center. Information was gathered from previous education and current policies and procedures. Two-thirty minute sessions were offered. There were four to five Registered Nurse participants for each session. A pre-brief was conducted on room surveillance and instructions, but did not disclose the simulation topic or scenario. An Anesthesiologist participated as the clinical expert and the Clinical Nurse Education Specialist (CNES) provided the post-simulation debrief.

During the post-simulation debrief, the CNES collected notes on the discussion and questions that each participant had for follow up. The patient's situation, assessment findings, scenario objectives, interventions were discussed and reviewed. The scenario and debrief were summarized and presented to other Perianesthesia clinical nurses who were unable to attend.

Statement of Successful Practice: During the debrief there were opportunities for self-reflection and questions. In the beginning of the debrief many of the participants expressed they felt flustered, unprepared, and anxious. At the end of the debrief many of the participations felt more engaged, enlightened, and proud of their teamwork during the simulation. Areas of improvements were acknowledged, workflow changes and equipment locations were identified and discussed.

Implications for Advancing the Practice of Perianesthesia Nursing: Simulation training provides a realistic-safe environment for clinical nurses to apply their knowledge and enhance their skills. It also serves as an opportunity for nurse leaders to review critical actions, resources, and potential needs to optimize critical and emergent situations.