

Perianesthesia Malignant Hyperthermia Virtual Escape Room for Interactive Learning

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Background Information: Malignant Hyperthermia (MH) is a rare but serious and potentially fatal perioperative complication resulting from inhaled volatile anesthetics. Early detection in intraoperative and perianesthesia care units is crucial to patient survival.

Objectives of Project: Preparation for the rare occurrence of MH is imperative to the care of the anesthetized patient, nurses must be aware of the processes and early interventions. Virtual education escape rooms offer employee engagement and optimize critical thinking skills in a safe environment. The virtual platform offers critical thinking prompts to follow a sequence of interventions in the management for MH.

Process of Implementation: Implementation of an evidence-based multidisciplinary project aimed to improve recognition and intervention of MH protocol. Utilizing virtual escape rooms allows for subtle prompts in critical reasoning for the learner to protocolize the treatment plan for MH. The treatment of MH requires a series of steps to achieve stabilization of the perioperative patient. Identifying clear roles and responsibilities in a virtual space creates effective team building, clear communication and ultimately improves patient outcomes.

Statement of Successful Practice: Communication of team roles and responsibilities solidified the problem, approach and solution of MH crisis. With content from lecture and case study, nursing participated in a virtual escape room. The escape room offered a series of subtle prompts which subconsciously created a nursing response process for MH crisis. Post-education survey revealed an increase in knowledge in the management of MH in perioperative areas. Learners were able to quickly identify the treatment pathway for patients experiencing MH crisis.

Implications for Advancing the Practice of Perianesthesia Nursing: A misdiagnosis in the hypermetabolic state of MH may lead to fatal complications for the anesthetized patient. Recognition of signs and symptoms is imperative to early diagnosis and appropriate interventions.