

It's Getting Hot in Here: A Malignant Hyperthermia Escape Room

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Abstract Background Information: Malignant Hyperthermia is an uncommon genetic disease that causes a life-threatening reaction to certain anesthesia medication. MH causes tachycardia, hypercapnia, tachypnea, muscle rigidity, and dangerous temperature levels. Nurses require a large amount of technical knowledge and skills to complete their jobs. While nursing schools prepare them generally, additional education to prepare them for unit specific concerns such as MH while working in the PACU is necessary. Simulation based learning has been shown to be a more effective method of learning. A common reported complaint of nurses is that they have "post traumatic" stress levels around simulations from nursing school, and there is evidence that escape room- based simulations lower anxiety levels of participants without any loss in efficacy.

Objectives of Project: The goal of this simulation is to help PACU nurses become more adept at recognizing and managing the treatment of Malignant Hyperthermia.

Process of Implementation: The "It's Getting Hot in Here: A Malignant Hyperthermia Escape Room" is being implemented into the FY 25 PACU Nursing Competency at UMMC Downtown Campus where all PACU nurses will come to the Simulation Center at the hospital to complete a variety of education including this simulation. The nurses will be allowed to work in teams of up to 4-5 to assist one another as they would on their unit, utilizing their charge nurse and fellow staff.

Statement of Successful Practice: The nurses will be evaluated to determine success levels of the training based on a pre and posttest for general knowledge about MH. Additionally, the nurses will be timed on how long it took to complete the full case as compared to all the other nurses within their cohort.

Implications for Advancing the Practice of Perianesthesia Nursing: Adult learners are often volunteering their time away from their daily workflow, they require their education to be both engaging and cover content specific to their career choice. Holding attention and the feeling of a worthwhile investment in their time is most effective when it is low stakes, low anxiety, and content specific, as well as designed to avoid excessive removal from the work environment. As such the escape room is being folded into an existing annual PACU competency.