

# Malignant Hyperthermia Virtual Reality Simulation

Though rare, the death of a patient due to malignant hyperthermia is tragic for the family and the operating room staff. Malignant hyperthermia causes complications in 1 in 100,000 surgical procedures in adults and 1 in 30,000 surgical procedures in children. (MHAUS, 2021) Though uncommon, when considering the 234 million major surgical procedures that occur worldwide per year, being prepared for malignant hyperthermia is crucial to any perioperative team member. (Thomas G Weiser, 2008)

It is crucial that every person in an operating room is confident and capable of identifying early signs of malignant hyperthermia. Stimulating and immersive simulation training increases retention and reduces skill decay. To create higher quality simulation training for perioperative team members, Health Scholars developed Malignant Hyperthermia VR. Utilizing Health Scholars AI-enabled voice technology, learners practice team communication skills, while handling the identification, management and treatment protocol for malignant hyperthermia; all in an ultra-realistic hospital environment.

Health Scholars Perioperative experiences do not stop at Malignant Hyperthermia VR. Our Fire in the Operating Room™ application ensures your perioperative team is ready to recognize fire risks and put out an operating room fire. Together, Malignant Hyperthermia VR and Fire in the Operating Room™ are the perfect solution for your perioperative teams annual training requirements.

*Developed in partnership with MHAUS*



## AT-A-GLANCE:

Perioperative providers need to have the competencies requisite to identify and manage a patient experiencing malignant hyperthermia. Health Scholars VR simulation enables learners to practice these competencies in a risk-free environment utilizing best practices from MHAUS and AORN.

### Learning Objectives:

- Demonstrate recognition of early signs and symptoms of MH
- Identify and discontinue MH triggering agent
- Provide or ensure prompt airway management
- Demonstrate call for help, MH cart, code cart, and use of MH checklist
- Demonstrate effective leadership & teamwork communication skills
- Dilute and administer the first does of dantrolene within 10 minutes of decision to treat
- Discern the total dose of dantrolene

Malignant Hyperthermia VR only takes users on average 15-20 minutes to complete. Your perioperative providers are learning critical MH skills in a highly immersive environment, while you save time and resources.

## Malignant Hyperthermia Product Overview

### CAPABILITIES

- Models a patient experiencing malignant hyperthermia in an ultra-realistic operating room environment
- Utilizes objective feedback to instruct, evaluate, and refine malignant hyperthermia competencies.
- Provides learners a readiness score, determined by assessing core competencies.
- Features Health Scholars' AI-enabled voice technology.
- Configurable managements to meet your organization's protocols based on MHAUS and AORN recommendations.
- 24/7 accessibility and schedule training software.
- Turnkey implementation to seamlessly scale across any size organizations.
- Available on the Oculus Quest 2 headset

### BENEFITS

- The gamification of learning incentivizes and challenges providers to learn from their mistakes, practice regularly and therefore increase retention and reduce skill decay.
- Our highly immersive experience based learning makes it feel like learners are in the hospital setting. VR learners are 275% more confident to apply skills after training. (The VR Advantage, 2020)
- Gain peace of mind as your providers are building vital teamwork and communication skills.
- Save your organization crucial training budget. VR training costs 83% less than traditional simulation training. (Katz, 2020)
- Save resources and time by reducing time providers are out of service to train.
- Find, assess, and easily address skill gaps with objective readiness reports for individuals and entire organizations.

