

# INSITU SIMULATION OF AN MH CRISIS IN AN ECT TREATMENT UNIT; IMPROVING PATIENT SAFETY THROUGH EDUCATION AND IDENTIFYING LATENT ERRORS

Noel O'Regan, *Discipline of Anesthesia*;  
Michaela Burke, *MD Student*

## ABSTRACT: Oral Presentation

**Purpose:** Malignant Hyperthermia (MH) is a rare life threatening event and the drugs and equipment required are unique to this situation. Problems or issues caused by unfamiliarity or unrecognized lack of resources can put patients at further unnecessary risk. These latent errors can be uncovered by testing the system by running a simulation in the actual patient care area or an Insitu simulation.

Electro-convulsive therapy (ECT) is a treatment option for various psychopathologies treated at the Waterford Hospital. Recently, the ECT unit at the Waterford Hospital upgraded their resuscitation cart. This included the equipment necessary to run a MH crisis. An informal needs assessment was done with the head nurse of the ECT unit. It was found that there was a need for education of MH crisis as well as crisis resource management (CRM). It would be important to identify if there were any potential latent errors in the management of a MH crisis. It was proposed that an Insitu simulation event would be a valuable tool for both education and identifying latent errors.

**Methods and Results:** Scenario Generation: The intended participants were Eastern Health Nursing Staff of the Waterford ECT Treatment Unit. The objectives of the event were to i) assist with and discuss the management of MH and ii) discuss and apply the general principals of CRM. A storyboard and script was then generated for the scenario where the nursing staff would assist with resuscitation.

The live scenario with the Waterford staff is scheduled for March 28<sup>th</sup>, 2017. Following the scenario, a debrief will be conducted to facilitate reflection on the experience and identify knowledge gaps. As well the debrief will be used to identify latent errors. A checklist has been previously developed for identifying latent errors in the perioperative management of MH (manuscript currently being written) will be used to document latent errors. A post event survey will be used to assess learning value.

**Conclusion:** The anticipated conclusions would be to discuss how Insitu simulation helped identify latent errors and how this would improve patient care. I would also discuss the results concerning Insitu simulation as an effective education tool.