**SIMULATION FOR ICU TRANSITION – ASSESSMENT AND RE-EVALUATION**

**Introduction**

Identification of latent safety threats (LSTs) i.e. errors in design, organisation, training or maintenance that may lead to medical errors, is crucial prior to transitioning to a new Intensive Care Unit (ICU) facility. Simulation provides an opportunity for timely identification and remediation of LSTs and thus helps to improve patient safety.

**Objective**

To identify LSTs using in-situ simulation sessions prior to moving into a new ICU.

**Methods**

We conducted simulation scenarios over 6 weeks prior to moving into the new ICU. Healthcare providers (doctors, nurses, allied health personnel) participated in these scenarios .We included a ‘virtual’ ICU day to focus on testing the new model of care in the new environment. We conducted structured debriefings after each scenario. We developed 15 codes for 6 domains of LSTs by using an iterative process until consensus was reached. Using the Healthcare Failure Modes and Effect Analysis (HFMEA) matrix developed by the National Centre for Patient Safety (VA NCPS), we assigned a hazard score for each LST. LSTs were classified as catastrophic if they were likely to cause death or injury. The LST communication and action matrix was developed and agreed upon with the hospital management prior to commencement of the study.

**Results**

A total of 24 simulation sessions were conducted with 61 participants. Ninety seven LSTs were identified, 36% of these were catastrophic and needed immediate remediation. Issues related to ‘medication administration’ and ‘equipment’ had the highest number of LSTs (34% and 19.6% respectively). Of the 35 catastrophic LSTs, 42% were related to ‘medication administration’ followed by issues related to ‘models of care’ (28.6%). Issues related to communication had the least number of LSTs (7.2%) and none were catastrophic .

**Conclusions**

In-situ simulation is a practical method for identifying LSTs prior to patient occupation of a new ICU. Patient safety can be enhanced by timely rectification of these LSTs. Our systematic approach to early LST detection using simulation is potentially adaptable and scalable to other new ICUs.