

2021, with the launch of the Game in NHSCT thereafter. The App has potential for scale-up across NI and the UK.

## REFERENCE

1. Northern Health and Social Care Trust. Evaluation of Impact of Human Factor Training. 2020. Northern Ireland.

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### ACUTE MEDICINE MEETS 'KNIGHTMARE': 'CHOOSE YOUR OWN ADVENTURE' FORMAT FOR REGISTRAR COURSE DELIVERY

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**Background:** Ongoing social distancing restrictions have greatly limited opportunities for registrars to attend regional acute medicine teaching. Basing the project on previous work within the trust running simulation via Microsoft Teams (using a one-to-one method of delivery) this project set about opening this up to a much larger group using a 'choose your own adventure' ('CYOA') format depicted in the children's television show 'Knightmare'.

**Aim:** The aim of the study was to deliver a simulation-based training course for a large number of participants simultaneously using an online platform.

**Method/design:** Scenarios were as follows:

- Patient with an exacerbation of COPD
- Patient with a life-threatening overdose
- Patient presenting with undifferentiated unconsciousness

The clinical room featured an audio-visual set-up for debrief with three cameras and patient observations from Laerdal Learning Application (LLEAP) combined with an audio mix shared via video-stream to VLC media player; then from the host laptop via Teams. Teams used audio mixer input from room via USB. This included phone audio allowing calls to relatives, other specialists, etc. to be heard. Teams accessed from the following locations:

- Host (control room)
- Faculty (control room)
- Faculty (clinical room)
- Faculty (debrief room)
- Participants (remote) × 14

Teams host laptop was pre-loaded with all scenario information which allowed ECGs, CTs, Toxicology reports to be shared as requested throughout the scenarios. The multi-screen set-up allowed for monitoring of chat from a control room and clinical space meaning all users could access key information shared on screen. Faculty had radio communication to control room for prompts and questions. Scenarios would be led by a member of faculty playing the role of a clinician in the scenario. The scenario would progress with input from the participants via that Teams chat. At key points, the scenario would pause and a question would be put to the group and an option would be voted on to continue. After each scenario, using Teams break-out rooms for debrief allowed the large group of participants to have a more focussed debrief session led by one of the medical faculty.

**Implementation outline:** Using the structure of 'CYOA' encouraged users to take part in key interventions, whilst chat function within teams allowed for continuous dialogue. Participant feedback stated that the discussion format and

expertise within the group was very useful in their training and would have a positive impact on working practice. Faculty found virtual simulation more demanding to facilitate than face-to-face simulation, but feasible to run the session annually.

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### INTRODUCING AN *IN SITU* SIMULATION PROGRAMME IN AN INTENSIVE CARE UNIT

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10.54531/WHPG6255

**Background:** This North London hospital has a 14-bed Intensive Care Unit (ICU). As a small District General ICU, staff exposure to emergency scenarios can be infrequent. Lack of practice can lead to a reduction in staff confidence and knowledge when these scenarios are encountered, especially during the COVID pandemic. The ICU had not previously undertaken *in situ* multi-disciplinary team (MDT) simulation sessions on the unit.

**Aim:** The aim of the study was to introduce a novel programme of MDT simulation sessions in the ICU and provide feedback with the aim of increasing both staff confidence in managing emergency scenarios and staff understanding of the impact of human factors.

**Method/design:** A team of ICU Simulation Champions created emergency scenarios that could occur in the ICU. Pre-simulation and post-simulation questionnaires were produced to capture staff opinion on topics including benefits and barriers to simulation training and confidence in managing ICU emergencies. Members of the ICU MDT would be selected to participate in simulation scenarios. Afterwards, debrief sessions would be facilitated by Simulation Champions and Airline Pilots with a particular focus on competence in managing the emergency and human factors elements, such as communication and leadership. Participants would then be surveyed with the post-simulation questionnaire.

**Implementation outline:** Nine simulation sessions were conducted between October 2020 and June 2021. The sessions occurred within the ICU during the working day in a designated bay with the availability of all standard ICU resources and involved multiple MDT members to aid fidelity. Feedback by Simulation Champions mainly focussed on knowledge related to the ICU emergency, whilst the Airline Pilots provided expert feedback on human factors training. Fifty-five staff members completed the pre-simulation questionnaire and 37 simulation participants completed the post-simulation questionnaire. Prior to simulation participation, 28.3% of respondents agreed they felt confident managing emergency scenarios on ICU – this figure increased to 54.1% following simulation participation. 94.4% of simulation participants agreed that their knowledge of human factors had improved following the simulation and 100% of participants wanted further simulation teaching. Figure 1 shows a thematic analysis of the responses from 31 participants who were questioned about perceived benefits from simulation teaching. Following the success of the programme, the Hospital Trust will continue to support and develop inter-speciality

and inter-professional training, and have funded the appointment of an ICU Simulation Fellow to continue to lead and enhance future *in situ* simulation teaching on the ICU.

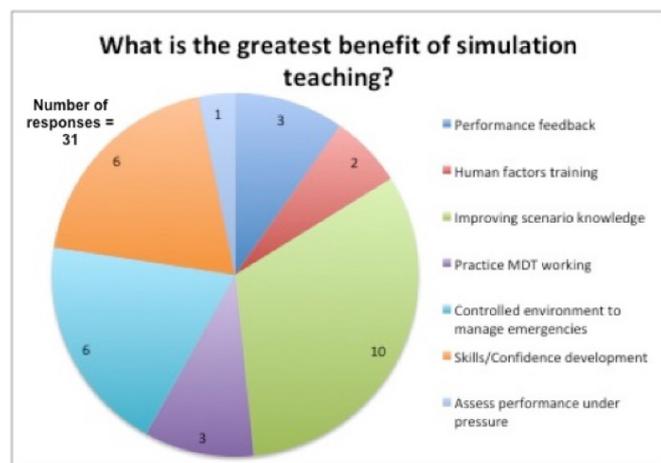


Figure 1:

## 20 SPECIAL DELIVERY: SKILLS@HOME

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10.54531/QDPG2486

**Background:** Due to the sudden shift in online learning at the start of the pandemic, an innovative idea was identified to encourage a student-centred approach for continuing the development of their essential skills whilst learning from home. Taking inspiration from other healthcare programmes, we developed, and risk assessed 'Skills@Home' packages to embed a mastery learning approach towards dexterous skills. These comprehensive packages included access to virtual resources and e-learning as well as practical and safety equipment. Implementation of these packages allowed students to maximize their exposure, experience and understanding of a range of skills that could be accessed at a time and pace to suit their needs. The pilot 'Skills@Home' package focussed upon the development of suturing, which is a traditional and essential midwifery skill.

**Aim:** A collaborative approach between the midwifery team and the clinical simulation and skills education team ensured a robust approach to the risk assessment, procurement and delivery of packages to students' home addresses. A prerequisite for receiving a pack was the completion and return of a detailed student agreement form which outlined safety considerations and their responsibilities. The package was piloted with a cohort of 29 third-year student midwives, as a priority group, to facilitate and increase confidence and application in the clinical area and to ensure enough opportunities for progression on the programme.

**Method/design:** Students completed an online evaluation form after receiving their packs, which showed overwhelming support for this approach. Students identified that having the opportunity to learn in this manner at home not only enhanced their confidence and skills technique but also helped them to relate theory to practice. Additionally, students identified that they would like to see the 'Skills@

Home' approach sustained and enhanced once on-campus learning has resumed.

**Implementation outline:** This has inspired the clinical simulation and skills education team to identify other Skills@Home packages that can be used within healthcare learning. Ensuring that thorough risk assessments are completed along with the packages being created and delivered to the students in the most cost-effective way. Following the pilot study, ethics approval is currently being sought to explore, using focus groups, the midwifery students' experiences and view of using the Skills@Home initiative.

## 29 REDUCING RISK: SIMULATION-BASED CLINICAL SYSTEMS TESTING TO DETERMINE NEW HOSPITAL READINESS FOR ANAESTHESIA SERVICES

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10.54531/PXGQ8394

**Background:** The newly built Women's Wellness and Research Center (WWRC) replaced the pre-existing Women's Hospital (WH) as the only provider of tertiary maternity care for the residents of Qatar. The pre-existing WH was smaller, with a 12-bay emergency department, 3 operating theatres, 12 delivery rooms and 220 beds, in shared rooms. The new WWRC facility is significantly bigger, with a 28-bay emergency department, 7 operating theatres over two floors, 26 delivery rooms and 240 private inpatient rooms catering for around 18,000 deliveries per year. New systems, designed over only a few months, would need to promote that same level of high-quality patient care but in a newer, larger and unfamiliar facility.

**Aim:** The aim of the study was to identify and mitigate clinical systems risks, relevant to anaesthesia services, by running *in situ* simulations.

**Method:** The 'WWRC Anesthesia Activation Team' was established to conduct *in situ* simulations, testing clinical systems. We hypothesized that, despite meticulous planning, numerous process gaps would be discovered, and that improvements derived from testing sessions would reduce risk<sup>[1]</sup>. Well-planned scripted 'everyday' scenarios were prepared. Relevant multi-disciplinary groups of participants were involved, and the scenarios were kept flexible. After the simulation, facilitated debriefing highlighted problem areas and suggested improvements.

**Implementation outline:** Approximately 110 hours of simulation were conducted in sites relevant to anaesthesia. Many of the participants had never experienced simulation before but nearly everybody complimented its usefulness and debriefing was unanimously constructive. Testing identified 143 discrete latent safety threats (LST) and were categorized under Facility, Workflow, Personnel, Process, Equipment and Technology (Table 1). Fifty-four LSTs were due to systems that were incomplete at the time of testing but would be completed by the time services commenced. The remaining 89 were significant LSTs which could have resulted in significant clinical incidents. After mitigation of LSTs, the areas were simulation tested again to confirm threat elimination. WWRC was opened only after all areas of concern were addressed. A year after moving, a review of all the changes recommended from the simulation-based systems testing was conducted. It showed that there were no anaesthesia-related clinical incidents in those areas.