

Implications for practice: This course demonstrates that simulation can be delivered safely throughout a pandemic while maintaining education value. Participants continued to find simulation useful; the use of PPE did not affect debriefing and learning processes. Changes did arise as a result of the changes: increased workload on staff (multiple sessions), timing issues, repetition in scenarios delivered and ward pressures on participants. Moving forwards, some adaptations such as the use of PPE will remain, but the course will return to a full day. To further evaluate the impact of the changes made. We are currently obtaining feedback from faculty.

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USING SIMULATION TO IMPROVE SURGICAL DEPARTMENTAL INDUCTION FOR JUNIOR DOCTORS

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Background: Departmental induction is essential for trainee well-being and patient safety, particularly for doctors in the early stages of their careers. Studies have shown that junior doctors often feel underprepared and without sufficient knowledge for safe and efficient practice in surgical rotations ^[1]. Simulation has been suggested as a tool to improve preparedness. Simulation training in acute surgical presentations, surgical ward rounds, for theatre teams and for practical surgical skills is well established. However, much of junior doctors' work involves assessing patients who have deteriorated following admission ^[2], including post-operatively. There is little in the literature exploring the use of simulation in preparing junior doctors to manage ward-based surgical emergencies.

Aim: This pilot project aimed to create an immersive simulation-based course for junior doctors, focussing on the technical and non-technical skills required to deal with common post-operative and post-procedural emergencies, to improve the departmental induction process.

Methods: Junior doctors completed a questionnaire to identify their learning needs. On the basis of this, six high-fidelity immersive simulation scenarios were designed: post-operative bleeding, post-ERCP pancreatitis, post-NG tube insertion aspiration pneumonia, anastomotic leak, post-operative wound dehiscence and post-operative cardiac arrest. The scenarios were constructively aligned to both technical and non-technical learning objectives. Scenario participation was followed by a facilitated debrief. Participants completed a pre- and post-course questionnaire exploring their experience on surgical wards, confidence managing surgical ward emergencies and evaluation of the course.

Results: Two pilot sessions have been facilitated, involving seven junior doctors. Highlighted challenges of surgical ward work include the need for independent decision-making, obtaining senior support and ensuring review of post-operative patients. Pre-course, confidence was particularly low in identifying and managing post-operative emergencies, identifying patients

who need to return to theatre and making escalation decisions for surgical patients. Confidence was higher in escalating to surgical seniors and recognizing own limitations. Post-course, confidence had improved in all technical and non-technical skill domains. Participants found the scenarios and subsequent debriefs relevant and educationally valuable. The main suggestion for improvement was to include the course earlier in the rotation. Data collection is ongoing.

Implications for practice: Our results show that junior doctors find specific simulation-based training in surgical ward and post-operative emergencies extremely valuable, with improved confidence in technical and non-technical skills. We hope to embed this training as part of the departmental induction within our health board and suggest that simulation training for junior doctors on post-procedural emergencies would be of widespread benefit.

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ULTRASOUND IDENTIFICATION OF THE CRICOTHYROID MEMBRANE FOR EMERGENCY FRONT OF NECK ACCESS

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Background: The difficult airway society states that emergency front of neck access skills should be recapped every 6 months amongst those practitioners expected to perform the skill. Furthermore, the national audit states that, of the 25 emergency cricothyroidotomy cases, 9 failed. These were largely due to incorrect identification of the midline and tube misplacement. There is a convincing argument for training practitioners in ultrasound identification of the cricothyroid membrane, mitigating the risks of incorrect midline identification and blood vessel damage ^[1].

Aim: Our aim was two-fold: introduce and embed the skill of ultrasound identification of the cricothyroid membrane for use in emergency front of neck access and encourage regular recap of these skills through a training package of blended learning, consisting of videos, 'tea trolley' style theatre training and a more formal simulation-based course that focuses on the ultrasound and front of neck access skill and human factors as we know this is a key factor in the success or failure of this scenario.

Methods: A pilot course was rolled out amongst anaesthetic trainees to assess relative comfort with performing emergency front of neck access. The course consisted of a short lecture on the background and anatomy, teaching of the ultrasound skill using live subjects, practising of ultrasound-guided front of neck access on animal necks and finally a simulation with debrief surrounding implementation of the skill itself and human factors. This course is now being rolled out regionally and aims to teach all trainees in the region. We encourage trainees to generate their own informal logbook of ultrasound cases, whereby they consent patients to undergo a short ultrasound scan in the anaesthetic room prior to intubation, have their neck marked and then are rescanned