

after intubation to confirm correct identification. This should be done with 'normal' airways, not just those expected to be difficult, as this practice embeds the skill. Our 'tea trolley' style teaching is yet to be commenced but will involve ad hoc teaching within the theatre suite including the multi-disciplinary team who would be involved in such an event – the anaesthetist, operating department practitioner and theatre team. Finally, we are generating a video bank, which can be accessed in users' own time to recap and review the process and troubleshooting of ultrasound identification of the cricothyroid membrane and ensuing cricothyroidotomy.

Results: An improvement was reported in trainees' comfort levels to perform ultrasound-guided cricothyroidotomy and all trainees felt that this was a worthwhile skill to embed into their practice. These improvements were tested via a pre- and post-course questionnaire. The same we hope will be true for the tea trolley training and we aim to address the human factors involved during these sessions too.

Implications in practice: The aspiration is that ultimately ultrasound identification of the cricothyroid membrane for emergency front of neck access will at the very least become a skill that all trainees are formally taught and encouraged to practice and at the most will become the new standard for plan D airway access in the difficult airway society guidelines.

REFERENCE

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SIMULATION: A TOOL TO OPTIMIZE THE ACTIVATION OF NOVEL HOSPITAL AND CRITICAL CARE PATHWAY

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10.54531/AOJR5259

Background: As part of the national COVID-19 response, an NHS Nightingale Hospital was established for our region. An initial cohort of patients was admitted with resource allocation, demanding that limitation of care be clearly defined, including avoidance of invasive ventilation. Within weeks, an increasing bed capacity need drove preparation to admit patients who might require escalation to mechanical ventilation. This shift in admission criteria demanded significant change to the hospital's service provision, including the ability to stabilize and transfer critically ill patients from this satellite location to an acute partner trust ^[1].

Aim: The aim of this study was to perform a rapid, prospective analysis of the critical care patient pathway and surrounding environment at a novel Nightingale Hospital using high-fidelity simulation.

Method: Following a need assessment and discussion with stakeholders, *in situ* simulation was undertaken using a Hal® (Gaumard) manikin with a multi-disciplinary team. The immersive scenario, requiring intubation of a deteriorating COVID-19 patient, was undertaken in real time, debriefed and then repeated to assess interventional safety improvements. A demonstration video narrative was produced as a learning aid for dissemination to all supporting staff who may be involved with this clinical scenario, potentially at short notice.

Results: The internal environment and infrastructure were adequate to perform the task. A significant number of latent threats were identified and actioned during the simulation (Table

1). Qualitative feedback demonstrated that simulation was a useful and effective experience to increase confidence in performing this high-risk procedure in a remote location. Feedback on the video was positive and it was approved for dissemination to staff who may be involved in managing these patients.

Table 1: Latent threats found at the Exeter Nightingale hospital during simulated intubation of a critically unwell COVID-19 patient

| Domain | Latent threat | Action |
|-------------------|---|--|
| Safety | Intubation checklist | Adopted and amended by members of the visiting teams. A video was created for demonstration purposes. |
| Equipment | Unfamiliar ventilators Breathing circuits incompatible Arterial lines Central lines Sterile packs Pressure bags Ultrasound probe covers Sterile gloves Theatre hats Tapered high-volume low-pressure endotracheal tubes, with integrated above cuff suction port Size 3 face masks Yanker suckers CPAP masks compatible with the 'Jenny' ventilator | A training video for use on the ventilator was made with information sought from the company representative. Boxes were unpacked and checked. Any additional equipment requested by the team was documented and ordered. Nightingale clinical lead informed of the extra requirements. |
| Drugs | Lack of critical care drugs | Intensivist involved with the investing team liaised with the Nightingale pharmacist to order any additional drugs. |
| General | Equipment unchecked and boxed identified. | The team unpacked and checked equipment and set it up for clinical use. |
| Staffing | Requirements for operation department practitioners, anaesthetists on near standby Transfer to the main hospital site | Transfer simulation planned with the ambulance service to test the multi-disciplinary components. The clinical lead was informed of the findings. |
| Resource planning | Ability to manage patients prone at the remote site | Staffing requirements were reported back to Nightingale lead consultant |

Implications for practice: *In situ* simulation with a high-fidelity manikin proved to be a useful and reproducible tool in developing and testing the systems involved in managing critical care patients at a novel hospital. In accurately simulating a real-time clinical scenario, the care pathway is experienced and contextualized within the team. It offers an opportunity to expose deficits in the system without causing harm (Kaba and Barnes, 2019). Evidence gathered can be easily and rapidly reported to operational leaders allowing timely decision-making, change implementation and mitigation of preventable risk. This makes simulation a cost- and resource-effective quality improvement method. In addition to patient safety process testing, *in situ* simulation offers a valuable individual and collective training opportunity, providing realistic orientation for clinicians and staff. In recording the

simulation, educational tools have been created, extending their reach to both clinical and non-clinical staff.

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DEBRIEFING THE DEBRIEFER; DEVELOPING AN INTER-PROFESSIONAL FACULTY FOR EMERGENCY MEDICINE SIMULATION

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10.54531/ABCI4973

Background: Previous research has described the importance of debriefing in Simulation-Based Medical Education; it is considered the most critical part of the teaching experience^[1]. It is a skill requiring practice and poorly structured debriefs can harm candidates^[1]. There are few formal debriefing courses available to aspiring faculty members; they are often oversubscribed.

Aim: The aim of this work was to develop an inter-professional faculty with a variety of backgrounds to assist on an inter-professional nursing-medical simulation course in Emergency Medicine. A further aim was to develop a novel formal debrief for the debriefer to help improve confidence in this skill.

Method: A variety of professionals were invited to attend the course as faculty. Following their debrief of the scenario, the debriefer was invited to discuss their opinion on how they managed the debrief, from room set up to structure used. Troubleshooting advice was offered and an action plan was put in place for next steps of development. Faculty members were asked to complete a formal feedback form at the end of the session.

Results: Inter-professional faculty members included Emergency Medicine consultants, trainees and clinical fellows, simulation technicians, emergency medicine nursing staff and resuscitation officers. 75% of faculty members had attended <5 simulation courses as faculty prior to this session. 81% of faculty members scored 4 and 5/5 for feeling confident at debriefing as a result of the session. 100% scored 4 and 5/5 for feeling supported during their debrief. 100% felt that the session had improved their debriefing skills. 87.5% felt appropriately challenged as a faculty member. 100% were willing to attend the course again in the future. Free-text comments included the best part of the day was 'Personally observing and practicing debrief, brief and debrief of my debrief', 'Supportive atmosphere for faculty' and 'Debrief learning points'.

Implications for practice: Overall, faculty members from varying clinical and simulation backgrounds were supported throughout the day and as a result were more confident in their debriefing abilities following the session. Future work aims to continue this incremental learning to allow all faculty members to feel confident and able to 'debrief the debriefer'. This will ensure the quality of the debrief for learners, maximizing the impact of simulation-based medical education.

REFERENCE

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INFANT ABDUCTION: LIVE SIMULATION DRILLS EXPLORE THE RISK IN THE MATERNITY UNIT

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10.54531/UNLG4542

Background: Child abduction is poorly defined in the UK. Legislation varies, defining offences of child abduction, kidnapping and child stealing/plagium. Rabun^[1] reports that 45% of infant abductions occur from healthcare facilities and the remainder occur from homes (40%) and other places (15%). The rise in child abduction in recent years may be related to easier access to hospital units, previously open only to fathers during strict visiting hours^[2]. Modern, family-centred units allow many visitors, posing further concerns around abduction.

Aim: Proactive planning, security and staff training are required to reduce this risk, and a live simulation was utilized to test these elements, identify risks and provide solutions.

Method: A staff member, unknown to the maternity team, was admitted to the ward and gave birth (simulated to a baby girl). Ward staff were informed that there was a restraining order on her partner who was not permitted to visit. An educator from the Clinical Simulation team was tasked with gaining access to the maternity unit, abduct the baby and make their way to a hospital exit and to the car. With the support of Clinical and Governance Midwives, an unannounced live drill was conducted to analyse:

- Security of the unit
- Staff adherence to local policy – proactive planning
- Conflict management and challenge

Results: Observation analysis identified:

- Access to the maternal unit was gained through tailgating with no challenge from staff.
- Access to the mother's room, despite being in close proximity to the midwives' station, went unchallenged.
- Staff did not engage or challenge abductor despite a team member identifying concern.
- Activation of local policy was slowed due to handover time. Lack of awareness of who has called who.
- Communications between staff members occurred through non-secure social media applications.
- Security cameras ineffective due to relay of images to a different location
- Escape from the unit made easy by unlocked corridors.
- Certain staff groups unsure of their role.

Implications for practice: The identification of latent risks in resources and staffing alongside having confidence with protocols and decision-making has illustrated potential serious risks to both mother and baby. This clinical simulation has allowed us to address and provide recommendations to resolve these by highlighting urgent reassessments of security, proactive planning and staff development to ensure the reality of abduction is minimized.

REFERENCES

1. Rabun JB. For Healthcare Professionals: Guidelines on Preventing Infant Abductions. 3rd edn. Arlington, VA: National Centre for Missing and Exploited Children; 1993.
2. Lowenstein LF. Parental child abduction: a literature review. *Police J.* 2002;75(3):234-244.