and allied health professionals. Anonymous feedback was collected at the end of each session, with 84.62% (*n* = 13) of respondents reporting their confidence in assessing mental capacity had increased. This led to gaining funding to continue delivering more sessions in 2023.

Conclusion: Studies have shown that healthcare professionals' confidence in applying the mental capacity act can vary [2]. Solely focusing on traditional forms of education might not be enough to prepare our workforce, in this case simulation-based training has provided a valuable tool to enhance participant's abilities in relation to the mental capacity act and its application in healthcare practice.

Ethics statement: Authors confirm that all relevant ethical standards for research conduct and dissemination have been met. The submitting author confirms that relevant ethical approval was granted, if applicable.

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EDUCATION, SYSTEM

A98 | **LESSONS LEARNED FROM HYPERKALAEMIA SIMULATION: IMPROVING POLICY & PRACTICE**

Carly Cooper[1], Katy Howe[1], **Ben Hester**[1]; [1]*Somerset Foundation NHS Trust, Taunton, United Kingdom*

Correspondence: ben.hester@somersetft.nhs.uk

Background and aim: Following an investigation where ten times the amount of prescribed insulin was given to a patient during the administration of treatment for hyperkalaemia, learning needs were identified. It was from this incident outcome that the aim for this project arose.

Aim: Create a hypokalaemia simulation that can be delivered trust wide with only one facilitator.

Activity: The simulation was run on the medical wards that the staff were familiar with to allow us to identify policies and process gaps as well as learning needs.

The simulation only required two registered nurses and with the debriefing session usually took around 40 minutes. This limits the impact on busy wards allowing for safe staffing levels to be maintained. Simulation incident forms were completed for each session to highlight and raise awareness of identified learning points to both ward managers and local governance leads.

Findings: The first error that impacted the simulation was the spelling effecting the access to treatment guidelines contained within a Trust policy. The Trust we work for is proud to be multinational, and we found that the majority of our colleagues that have received education oversees used the more widely recognized spelling in Europe of hyperkalemia. This was escalated and the second spelling was added as a keyword, after this change the problem was not repeated in subsequent simulations. It led to further reviews of Trust policies and has driven a change in keywords within the policy portfolio.

The second and third errors were around lack policy and treatment flowchart awareness and poor knowledge on how to navigate the intranet to find policies. Although the participants in the simulation left with a good awareness of the policy and practices accessing the policy and flowchart during the session, it had become apparent that this was a wider Trust issue. Therefore, communication posters were made to highlight the policy and treatment flowchart for hyperkalaemia. Using a QR code staff could play a short video showing how to access the Trust policies from the intranet page after the sessions.

Conclusion: Future plans include collaboratively using simulation to test systems and highlight learning points for other incidents or errors that arise throughout the Trust. Also, we look to utilize Dynamic QR codes [1] that allow for the content connect to the QR code to be updated without the poster having to be reprinted and laminated allowing for a live document.

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DESIGN

A99 | **DESIGNING AND IMPLEMENTING E-NOTING FOR USE IN SIMULATION SCENARIOS FOR SUSTAINABILITY AND REALISM**

Lauren Philpott[1,2]; [1]*University of Greenwich, Greenwich, United Kingdom, [2]Dartford and Gravesham NHS Trust, Dartford, United Kingdom*

Correspondence: lp8381c@gre.ac.uk

Background and aim: Due to the nature of simulation-based education, large amounts of blank paperwork are used and disposed of in any given scenario. As many trusts are now moving towards e-noting, including e-obs and e-prescribing, the use of these in simulation can be extremely beneficial for the learners. These were highlighted by the author as areas for sustainability and increased realism throughout the simulation sessions run by the team at Dartford and Gravesham NHS Trust [1].

Activity: This initiative was developed to cut down on the amount of paper waste used during scenarios and increase the realism for the learners taking part. E-obs, e-prescribing and e-noting templates were created using Microsoft Excel and Microsoft Word that mirrored the programmes used throughout the trust, and were made readily available for the learners taking part in the simulation scenarios. These were then saved as templates, and a new version created for each existing patient throughout the scenarios. On top of this, each new scenario created also required a new set

of e-noting, including a NEWS, prescription and the relevant paperwork. 'Patients' who had progressed through ED, for example, had a completed CAS card, and their NEWS chart reflected the several sets of observations already taken. The NEWS chart template was also adapted for patients with COPD, and PEWS charts for each paediatric age group were also created, alongside separate e-prescribing to mirror the paediatric version of the drug charts throughout the trust.

Findings: Learners who participated in the scenarios using e-noting provided positive feedback, highlighting the realism and relevance to practice. 43 learners were asked to complete a short survey after taking part in 1 or more scenarios using the new e-noting system. 79% of learners reported that they found the system easy to use, 90% reported the relevance to clinical practice, 81% reported that it was realistic and 95% were happy that this is a feasible and sustainable way to utilize prescribing, observations measurement and note writing/history taking throughout the simulation sessions. 4% reported not using the e-noting system during their scenario.

Conclusion: Although the creation of the e-noting system required additional time and resources at the start, they quickly became easy to implement and adapt to each new patient or scenario. The use of this system leads to much less paperwork being destroyed and increased the realism for the participants who use e-noting throughout the trust.

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DESIGN

| A100 | **SIMULATING TO MANAGE POST THYROIDECTOMY HAEMATOMA SAFELY: IMPROVING FIDELITY WHILST REDUCING COST** |

Owen Vale[1], Andrew Hadfield[1], Catrin Maidment[1], Danielle Huckle[1], Cristina Diaz-Navarro[1]; [1]*University Hospital Wales, Cardiff, Cardiff, United Kingdom*

Correspondence: ovale@hotmail.co.uk

Background and aim: Simulation training sessions were designed at the University Hospital of Wales in order to implement the new national guidelines for the management of suspected haematoma following thyroid surgery [1].

Opportunities included on site portable training with a part task trainer and high-fidelity scenarios simulating patient deterioration following thyroid surgery in an immersive environment.

Our initial design for the high-fidelity set-up included a simulated neck haematoma achieved by using a second generation supraglottic airway device (SAD) with an inflatable cuff placed in the manikin's neck with the laryngeal opening outwards and tubing inside the chest. The opening was filled with red jelly, covered by simulated strap muscles (made from simulated small bowel with interrupted sutures) and simulated neck skin (which presented a sutured incision complete with steri-strips). Ongoing bleeding was simulated by injecting liquid jelly through the SAD's gastric port via a long connecting tube in the manikin's thorax.

This simulation training increased confidence and familiarity with the steps required to manage post thyroid surgery haematomas in 100% (15/15) of candidates, with 73% grading the mannikin ≥4/5 for realism. However, it was costly to provide and time-consuming to set up.

It was decided to try to make the set-up cheaper and easier to reproduce without impairing quality.

Activity: Equipment costs were reviewed and alternative options identified. Expensive components included the SAD and bowel material, which were replaced with a cheaper SAD and a disposable tourniquet fashioned as shown in Figure 1-A100. Participants used both devices and were asked for feedback.

Figure 1-A100: Making the simulation larynx and strap muscles. A step by step guide

Findings: The cost of disposable props used in each session was reduced from £133.04 to £8.52 with the new equipment. The designers also felt it was significantly more robust and easier to reproduce. This approach could also be easily adapted for mobile part-task training, improving multidisciplinary access to training.

Feedback showed 47% of candidates felt the new set-up to be better, and 47% reported non-inferiority.

Conclusion: Changing to new equipment resulted in a design that was significantly cheaper, easier to source and set-up, while being at least as realistic and offering training opportunities outside the high-fidelity environment.

Ethics statement: Authors confirm that all relevant ethical standards for research conduct and dissemination have been met. The submitting author confirms that relevant ethical approval was granted, if applicable.

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