

## IN PRACTICE

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**'FLEXIBLE, ILLUMINATING AND UNCOMFORTABLE'- INTEGRATING IMMERSIVE SIMULATION WITHIN A NATIONAL PROGRAMME FOR ENDOSCOPY NON-TECHNICAL SKILLS TRAINING**

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**Introduction:** The importance of non-technical skills for improving safety and efficiency in healthcare is well established, with a variety of behavioural marker systems (BMS) evolving to provide structure for the training and assessment of these behaviours [1].

Endoscopy Non-Technical Skills (ENTS) is a bespoke BMS initially developed to support trainee endoscopists in the UK. 14 years after first publication it is viewed as a valid, reliable, and effective tool for appraising individual and team non-technical skills with frequent application in research, education, training and practice [2].

The recent Joint Advisory Group 'Improving safety and reducing error in endoscopy' report identifies inconsistencies in the delivery of ENTS training, highlighting a need for a nationwide simulation-based approach [3]. We detail the method adopted by the Scottish National Endoscopy Training Programme (NETP) to address this need.

**Methods:** Experts from clinical practice, education and simulation formed our faculty group, with aims to collaboratively develop an immersive simulation programme and oversee its delivery, and evaluation. Faculty development was achieved through completion of Clinical Skills Managed Education Network (CSMEN) faculty development e-learning resources and a 2-day introduction to simulation course.

Five scenarios were developed, based on breakdowns in non-technical skills commonly experienced in endoscopy.

Intended learning outcomes and potential observable behaviours were mapped to ENTS to ensure each domain was represented and to provide cues for discussion during debrief. An ENTS handbook was provided as pre-reading and micro-teaching sessions were developed to introduce key concepts. The Scottish centre debrief model was used to structure the debriefing process.

Evaluation was achieved through post-course participant questionnaires. Faculty evaluation was delivered through self-reflection, iterative feedback, and meta-debriefing from simulation faculty.

**Results:** The programme was successfully developed and delivered to 84 delegates, across 6 Sim centres. Participants reported positive experiences of simulation, improved knowledge of non-technical skills, and confidence in recognising areas for improvement in practice.

Emerging evidence from regions with prior attendance report improved safety briefing processes and increased utilisation of tools shared within the course. Wider impact evaluation is planned.

**Discussion:** This method provides an effective way to onboard clinical faculty, facilitate mixed-discipline co-development and integrate an established BMS to scenario writing and debriefing processes with potential transferability to other fields. Key themes from delegate feedback suggest that engagement with the programme carries the potential to improve patient safety by emphasising the importance of civility, flattened hierarchies, strong team dynamics, shared decision making and improved communication.

**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.

## REFERENCES

1. Prineas S, Mosier K, Mirko C, Guicciardi S. Non-technical skills in healthcare. *Textbook of Patient Safety and Clinical Risk Management*. 2021:413–434.
2. Ravindran S, Haycock A, Woolf K, Thomas-Gibson S. Development and impact of an endoscopic non-technical skills (ENTS) behavioural marker system. *BMJ Simulation & Technology Enhanced Learning*. 2021;7(1):17.
3. Joint Advisory Group on Gastrointestinal Endoscopy. Improving safety and reducing error in endoscopy (ISREE) implementation strategy.

