

Aim: The aim of the study was to meet IPE graduate outcomes and to explore the significance of human factors in clinical practice.

Method/design: Prior to the online seminar, students were allocated into their scenario groups to prepare notes on the non-technical skills, with directive guidance from an observational tool using an ABCDE approach. Within the seminar, students worked collaboratively in small inter-professional groups to discuss their observations and prepare a presentation, guided by the debrief diamond structure of description, analysis and application [1]. Facilitators debriefed after each presentation on the NTS observed [2] to explore why they occurred, and reflect how this impacted on the assessment and management of the patient and what students could apply to their own practice.

Implementation: Evaluation of findings demonstrated achievement of the key 'take aways' associated with live simulation and attainment of learning outcomes (Figure 1). The ABCDE observational tool demonstrated good usability and enabled effective analysis. Students asked that it should be adapted to include the patient in the descriptors and faculty observed students were more critical in their analysis of their peers compared with face-to-face debriefs. The long-term aim is to incorporate virtual seminars into the IPE programme to complement the learning in the face-to-face FPS. Innovations in the FPS programme will include using the scenario footage and the observational tool for pre-simulation briefing material, and the tool for directed observation during live scenarios and additional structure to debriefs. The scenario and debrief footage and the observational tool will also be used for facilitator training.

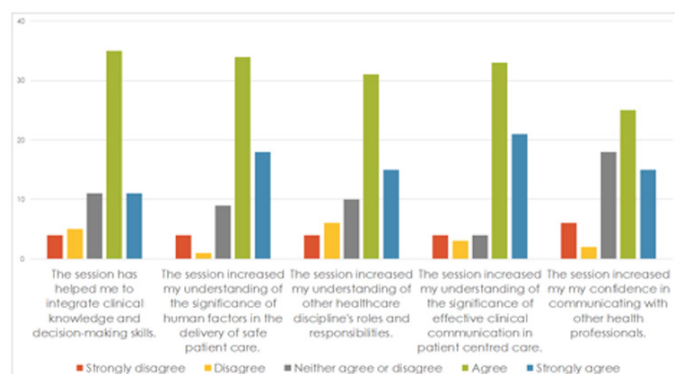


Figure 1:

REFERENCES

- Jaye P, Thomas L, Reedy G. 'The Diamond': a structure for simulation debrief. Clin Teach. 2015;12(3):171-175.
- Seale J, Khan A, Hirons B, Butchers C. ABCDE: directing student observation during high-fidelity simulation. Med Sci Educator. 2020;30(4):1347-1349.

88

STREAMING HIGH-FIDELITY ECMO SIMULATION FROM A MOVING AMBULANCE

Thomas Hayes¹, Aldwin Bernasol¹, Lindsey Pulford¹, Rachael Bedingfield^{1,2}; ¹Newcastle Upon Tyne Hospitals Foundation Trust, Newcastle Upon Tyne, UK²North East and Cumbria Transport and Retrieval (NECTAR), Newcastle upon Tyne, UK

10.54531/CKMB2199

Background: The Trust needed to offer extra-corporeal membrane oxygenation (ECMO) [1] patient transport training in the form of high-fidelity multi-disciplinary simulation utilizing a moving ambulance. ECMO circuits and monitoring would be controlled using Chalice's Parallel Simulator [2]. The

simulation would be broadcast to the simulation centre for observation and debrief. We developed a simulation and AV streaming solution for this.

Aim: The aim of the study was to deliver high-fidelity ECMO simulation in a moving vehicle while simultaneously allowing candidates and faculty to watch the scenarios take place remotely.

Method/design: A custom video-over-IP system was used to run three camera feeds and a patient monitor output. A laptop captured this in a quad-view format and streamed it to a dedicated video streamer. This was then networked locally via a router with a secondary laptop which displayed the stream. The router was connected to a mobile 4G modem, allowing the secondary laptop to share this video stream via Microsoft Teams (MS Teams). In addition, a USB audio interface and microphones ensured intelligibility while the vehicle was in motion.

Implementation: Teaching groups were made up of 3-4 candidates from the ECMO team and 3-4 candidates from patient transport. Scenarios outlined a paediatric patient, currently on ECMO, being transferred to a specialist hospital in the region via ambulance. One or two candidates from each service would take part in the scenario and the remaining candidates would view the simulation in the centre debrief room. A technician in front of the ambulance controlled the simulator and monitored the streams. The lead ECMO specialist nurse spoke to the technician from the simulation centre via a mobile phone link. The role of a consultant was played by a member of the transport faculty on the ambulance. This allowed the faculty to oversee and prompt when necessary. Using MS Teams meant the stream could be shared with the debrief room at the centre, the control room, and with other interested parties outside of the centre. This created a unique learning experience where all candidates could see each scenario and play an active role in debrief when the ambulance returned to the centre. Successful delivery of this course will improve patient safety during potentially complex ECMO transfers. We hope to invite more remote participants via MS Teams to view the simulations and take part in the debrief, increasing learning opportunities for ECMO and transfer staff.

REFERENCES

- Great Ormond Street Hospital. Extracorporeal Membrane Oxygenation (ECMO), Great Ormond Street Hospital ECMO Department. 2017. Viewed 18 June 2021. <<https://www.gosh.nhs.uk/conditions-and-treatments/procedures-and-treatments/extracorporeal-membrane-oxygenation-ecmo/>>
- Chalice Medical. Parallel Simulator. Chalice Medical Ltd.; 2021. <<https://www.chalicedmedical.com/products/parallel-simulator/>>

63

VIRTUAL COMMUNITY OUTREACH SIMULATION PROGRAMME

Andrew Boulton¹; ¹National Health Service UHBW, Bristol, UK

10.54531/LBRR5359

Background: The community outreach programme paused during the global pandemic as schools were closed and we were unable to go into schools and colleges to use simulation-based training to educate and inspire young adults to consider a career in the National Health Service. Now that schools and colleges are open it is still difficult to go into schools and colleges due to COVID-19 restrictions. We needed a way to continue to reach out to these schools and colleges using simulation to educate and inspire young adults.