

arrest, a study of Norwegian students found that 72% had witnessed defibrillation, and 47% had participated in CPR [1]. Anecdotally, UK medical students may never witness a cardiac arrest and subsequently the first arrest they attend is as a qualified doctor. It has been shown that simulation can improve the quality of care during a cardiac arrest [2]. This lesson aimed to utilise the immersive technology of the Gener8 room (interactive, immersive room designed to enhance medical education and simulation) to create a high-fidelity experience of a cardiac arrest situation. The outcome was to improve confidence and competence in management of cardiac arrest.

**Methods:** Final year medical students were informed that they would be undertaking a simple lesson. It appeared to them that the lesson was going badly, with the interactive technology failing. They were sent out of the room temporarily so the tutor could 'fix the technology'. However, after 30 seconds, an emergency buzzer was activated, the students re-entered the room and were faced with a cardiac arrest situation. The tutor played the role of arrest leader. Following the simulation, students underwent 'Hot Debrief' discussing the cardiac arrest simulation and then the entire simulation.

Students were asked to rate their confidence around the management of cardiac arrests before and after the simulation and share free text comments including their enjoyment of the session. This was done on a voluntary basis.

**Results:** There were 49 responses. The mean confidence rating before the session was 3.59 with a standard deviation of 2 and a variance of 4. This rose to a mean confidence score of 7.71 with a standard deviation of 1.47 and a variance of 2.16 after the session. 100% of the participants stated that they enjoyed the session. The feedback was overwhelmingly positive with the students particularly enjoying the realism and surprise element of the simulation.

**Discussion:** The results strongly suggest that immersive technology is an effective tool in improving education and experience of cardiac arrests. An effective debrief to re-enforce learning outcomes and support students is essential, especially simulation featuring a surprise, as it could prove traumatic without it. Future simulations re planned for the fourth-year medical students.

**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

## IN PRACTICE

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### STAYING ALIVE: ENHANCING CARDIAC ARREST SIMULATION THROUGH THE USE OF IMMERSIVE TECHNOLOGY

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**Introduction:** Management of cardiac arrests are a vital part of a doctor's job. Although there is no data on the percentage of UK medical students who will witness an

## REFERENCES

1. Freund Y, Duchateau FX, Baker EC, et al. Self-perception of knowledge and confidence in performing basic life support among medical students. *European Journal of Emergency Medicine* 2013;20:193–196.
2. Wayne DB, Didwania A, Feinglass J, Fudala MJ, Barsuk JH, McGaghie WC. Simulation-based education improves quality of care during cardiac arrest team responses at an academic teaching hospital: a case-control study. *Chest*. 2008;133(1):56–61.

