

education, is a novel opportunity to enhance the care of our complex airway patients. ENT and anaesthetic teams frequently manage airway emergencies out-of-hours, yet our airway teaching programs have historically been delivered separately. There is a recognised need for both specialties to train together to develop team-working skills and share knowledge when managing difficult airways [1].

Methods: We present our first regional collaborative airway teaching course delivered in February 2024 aimed at both ENT and anaesthetic trainees. This extensive high-fidelity full day program utilised a variety of teaching modalities including virtual reality (VR) oculus 3 headsets, Orsim bronchoscopy simulators, a simulated emergency cricothyrotomy station and collaborative paediatric inhaled foreign body moulages. Our VR headsets have both adult and paediatric tracheostomy simulations and emergency 'front of neck access' scenarios in-built. An additional multi-player function allowed cross-specialty team working. Orsim delivered a pioneering flexible nasendoscopy technology to recreate difficult endotracheal intubation. Our emergency 'front of neck access' simulation utilised a bespoke mannikin to recreate the real-time tactile feedback. The paediatric inhaled foreign body moulage put our delegates through a comprehensive scenario from A&E to our own ENT theatre suite.

Results: Regarding formal feedback, those participants that felt 'very confident' or 'extremely confident' in managing a paediatric inhaled airway foreign body improved from 0% to 83%. With regards to skills acquisition, those participants that felt 'very confident' or 'extremely confident' in performing flexible bronchoscopy improved from 50% to 92%. ENT trainees' confidence in discussing difficult airway cases with an anaesthetic colleague improved from 20% to 80% and for anaesthetic trainees improved from 45% to 100%. All participants found the teaching day useful and 100% agreed that there should be more formal collaborative teaching between ENT and anaesthetic trainees.

With respect to the VR simulation, 50% agreed that VR simulated scenarios mimicked a real-life scenario better than conventional mannikin-based sim. 100% found it useful to perform the simulation with a trainee from a different specialty. 100% felt that VR simulation allowed a safe environment to learn, highlighting the psychologically safe learning environment that often limits conventional sim teaching.

Discussion: This study has demonstrated that the incorporation of novel virtual reality teaching methods into our regional collaborative ENT & anaesthetics airway teaching, improved outcomes in trainees ability to manage tracheostomy and paediatric emergencies.

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. Coyle M, Martin D, McCutcheon K. Interprofessional simulation training in difficult airway management: a narrative review. *The British Journal of Nursing*. 2020;29(1):36-43.

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A REVOLUTIONARY COLLABORATIVE ENT AND ANAESTHETIC TRAINEE AIRWAY COURSE: UTILISING NOVEL VIRTUAL REALITY AND AUGMENTED REALITY TECHNOLOGY

Gavin Donaldson¹, Ciara Coary², Luke McCadden¹, Conor Jackson¹, Keith Trimble¹, Simon Marcus², Emma Lappin², Tim Moore²;
¹ENT department, Belfast Health & Social care Trust, Belfast, United Kingdom, ²Department of Anaesthesia, Belfast Health & Social care Trust, Belfast, United Kingdom

Correspondence: gdonaldson83@gmail.com

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Introduction: The introduction of virtual reality within healthcare and specifically within simulation-based