

## IN PRACTICE

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**USE OF HIGH-FIDELITY SIMULATED PRACTICE LEARNING TO SUBSTITUTE 'HIGH-RISK, LOW-EXPOSURE' CLINICAL EXPERIENCES IN AN ACCELERATED WORKFORCE TRAINING PROGRAMME**

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**Introduction:** An accelerated training programme to address the shortage of qualified Anaesthetic Practitioners (APs) in Scotland was commissioned by Scottish Government. The aim was to accelerate successful completion of the existing NHS Education for Scotland, Core Competency Framework for Anaesthetic Practitioners [1], reducing time to capability from an estimated 2 years to the 24 weeks of the programme. This is achieved by targeting 'high-risk, low exposure' clinical experiences identified as rate limiting and difficult to achieve in clinical practice. Clinical exposure is substituted by providing experiential learning through high-fidelity, simulated practice to facilitate competency completion.

**Methods:** Extensive initial stake holder consultation identified rate-limiting competencies, flagged as barriers to timely competency completion within anaesthetic departments across Scotland.

These were grouped into 8 themed face-to-face workshops mapped to competency requirements, combining skills training sessions and high-fidelity simulation, delivered to cohorts of up to 12 learners. High-fidelity simulation is used as a substitute for difficult to achieve clinical experiences for the purposes of competency completion. Hybrid, online and face-to-face delivery patterns allow preparation for workshops through engagement with bespoke, contextualised online learning resources.

Acceleration is achieved through capitalisation of prior knowledge, skills and experience in learners who are not subject naïve, application of constructivist educational principles to focus on clinical skills acquisition, and simulated clinical experience to remove redundancy from the programme curriculum. Competency sign-off remains with the employing NHS Boards.

**Results:** Since 2022 the programme is currently in its 6th iteration, having successfully trained 37 Anaesthetic Practitioners with 12 more enrolled. Significant acceleration of skill and competency acquisition to full qualification has been demonstrated with 100% (37/37) of learners completing within an accelerated timeframe (< 2 years), 89% (33/37) completing within the 24-week programme. Feedback for the programme has been sought both constructively and at 0, 6 and 12-months post-programme. Evaluations have been overwhelmingly positive with 100% of Service Manager respondents reporting an increase in AP confidence, competence and skill in the workplace, and all respondents reporting an increase in overall workforce capability, flexibility and resilience.

**Discussion:** Evaluation indicates that as simulation is a substitute for clinical experience as part of a simulated practice model it is essential that fidelity is as high as possible. Well-structured and learner accessible debrief is important to

maximise learning opportunities afforded by each simulation and improve learner experience.

A programme of high-fidelity, simulated practice experience is being successfully used to accelerate clinical competency completion for workforce development without compromising clinical or educational outcomes and has significantly reduced time to qualification for APs in Scotland.

**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. NHS Education for Scotland, Core Competency Framework for Anaesthetic Practitioners. 2003. Available from: [https://nesvleprdstore.blob.core.windows.net/nesndpvlecmprdblob/201e47e8-809b-4e3d-a246-9a70792c6875\\_NESD1900%20Core%20Competency%20Framework%20for%20Anaesthetic%20Practitioners%202024.pdf?sv=2018-03-28&sr=b&sig=WDUSDl9crj1po%2Bnd%2BaMjU4HcUiA5Ocxt8i7FgzqjF9Y%3D&st=2024-04-30T17%3A11%3A56Z&se=2024-04-30T18%3A16%3A56Z&sp=r](https://nesvleprdstore.blob.core.windows.net/nesndpvlecmprdblob/201e47e8-809b-4e3d-a246-9a70792c6875_NESD1900%20Core%20Competency%20Framework%20for%20Anaesthetic%20Practitioners%202024.pdf?sv=2018-03-28&sr=b&sig=WDUSDl9crj1po%2Bnd%2BaMjU4HcUiA5Ocxt8i7FgzqjF9Y%3D&st=2024-04-30T17%3A11%3A56Z&se=2024-04-30T18%3A16%3A56Z&sp=r).

