# A Novel Approach to Teaching Pre-Operative Assessment for Novice and Developing Anaesthetists

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#### Background

Stage 1 of the anaesthetic curriculum has 4 entrusbable professional activities (EPAs) with simulation based education (SBE) forming an integral part of 3 of these 1. Only EPA1, Pre-operative Assessment (POA), does not mandate SBE. Despite this being one of the first activities trainees are entrusted to do without supervision in practice. Possibly because it does not lend itself to the high fidelity sim-man scenarios we typically utilise SBE for in anaesthetic training.

Gaining experience of POA in a supervised manner can be challenging due to a number of factors such as time pressures, availability of supervisors and exposure to a variety of cases. We believe simulation can replicate many of the challenges and provide a safe learning environment for developing these skills.

The literature on this topic is sparse with one survey of 422 French anaesthetic residents experience on POA teaching identifying 21% performed their first POA alone. One publication on the use of SBE to teach POA to medical students was identified with nothing on it's use to teach anaesthetic residents.

#### **Methods**

We developed an educational course for novices involving interactive teaching sessions and simulated POAs. It was delivered to 24 novice anaesthetists including emergency medicine and medical intensive care residents in anaesthetic rotations at the time.

The talks covered history taking, examination, consent, investigations and risk discussion. The simulated scenarios covered various challenges, for example identifying a difficult airway and consenting the patient for an awake fiberoptic intubation or identifying that a neuraxial technique would be more appropriate than general anaesthesia and consenting the patient for that.

We then performed a structured debrief afterwards to identify learning points. Feedback was collected using anonymous pre and post course surveys.



### Results

The pre-course survey identified some of the difficulties in teaching POA particularly low levels of observation and feedback (see Figure 1.)

Data was collected on confidence across a variety of domains within POA such as history, examination, risk discussion and consent. A notable improvement across all domains was seen particularly risk discussion and consent (see figure 2.)

How often have you been observed performing a pre-operative assessment?

How often have you received feedback on your pre-operative assessment?



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#### **Pre-Course 24 respondents**

I am confident in my ability to perform the following task as part of a pre-op assessment (POA)



Figure 2 - Comparison of Pre and Post Course Confidence Levels

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#### Conclusion

There are systematic challenges with the delivery of teaching on POA in hospital leading to low levels of supervision and feedback

Simulation is an effective tool for teaching on POA. We have developed an evidence base for its efficacy in this area but future research particularly quantitative studies would be beneficial

This course has been established as regular training for all novice anaesthetists and residents rotating through anaesthesia in Northern Ireland

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### References

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