

From Pilot to Practice: A Peer-Led Approach to Improving Consultant Confidence in Regional Anaesthesia



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Background

The Royal College of Anaesthetists curriculum emphasises competence in regional anaesthesia (RA) across all stages of training¹, requiring confident trainers. However, in a UK study by Zhang X et al., only 22% of consultants reported confidence in Plan A blocks, highlighting variability in RA practice and teaching². Limited opportunities for supervised practice and trainer development have been identified as key barriers. We therefore aimed to improve regional anaesthesia training delivery by addressing **opportunities for consultant trainers and improving confidence in technical skills**.

Introduction

- ❖ A local departmental survey, in keeping with findings from Zhang X et al., identified low confidence in teaching Plan A blocks, with only 23% of consultants reporting confidence in teaching these techniques
- ❖ A pilot peer-led regional anaesthesia course was developed and demonstrated excellent feedback
- ❖ We aimed to refine and evaluate a peer-led regional anaesthesia training course, incorporating a train-the-trainer component to improve consultant confidence and supervision

Methodology

Building on the pilot, we refined our course and delivered two further iterations.

Course design

- ❖ Peer-led, delivered by expert regional anaesthesia consultants³
- ❖ Emphasis on 1:1, **safe space**, practical teaching
- ❖ The course was delivered as a structured 5-hour, station-based programme.

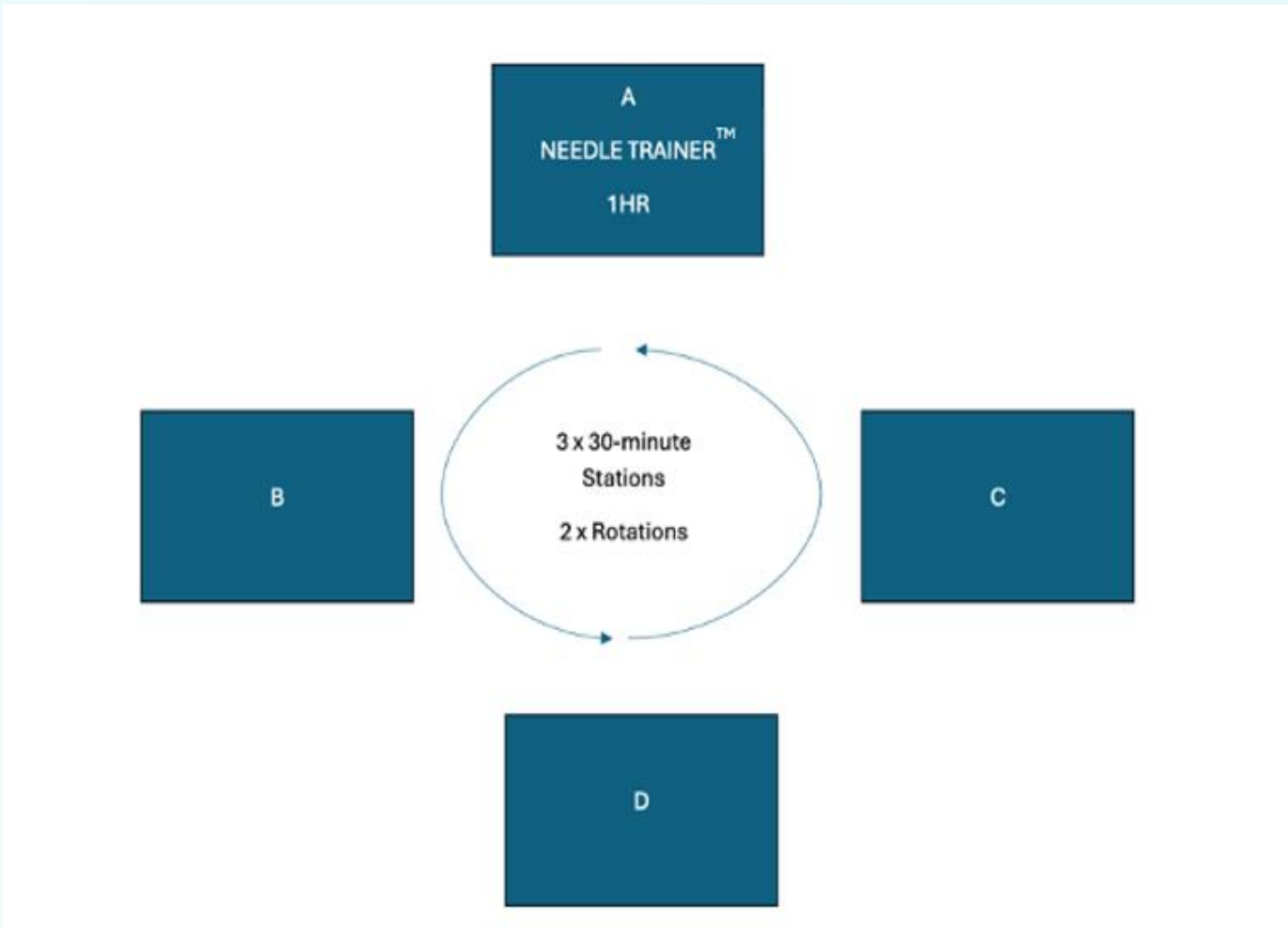


Figure 1. Station-based design with customised schedules to support flexible, individualised learning

Training components

- ❖ Ultrasound scanning on medical students and foundation doctors, **no trainees**.
- ❖ Needling practice using:
 - ❖ Locally developed alginate models incorporating simulated fascial planes
 - ❖ Fascia iliaca block (FIB) meat models to improve ultrasound imaging and needling realism
 - ❖ Commercial phantoms (B. Braun Medical)
 - ❖ Intelligent Ultrasound NeedleTrainer™ system (Cardiff, UK) for simulated needling
- ❖ Simulated catheter insertion techniques
- ❖ Dedicated train-the-trainer station focusing on supervision and teaching strategies

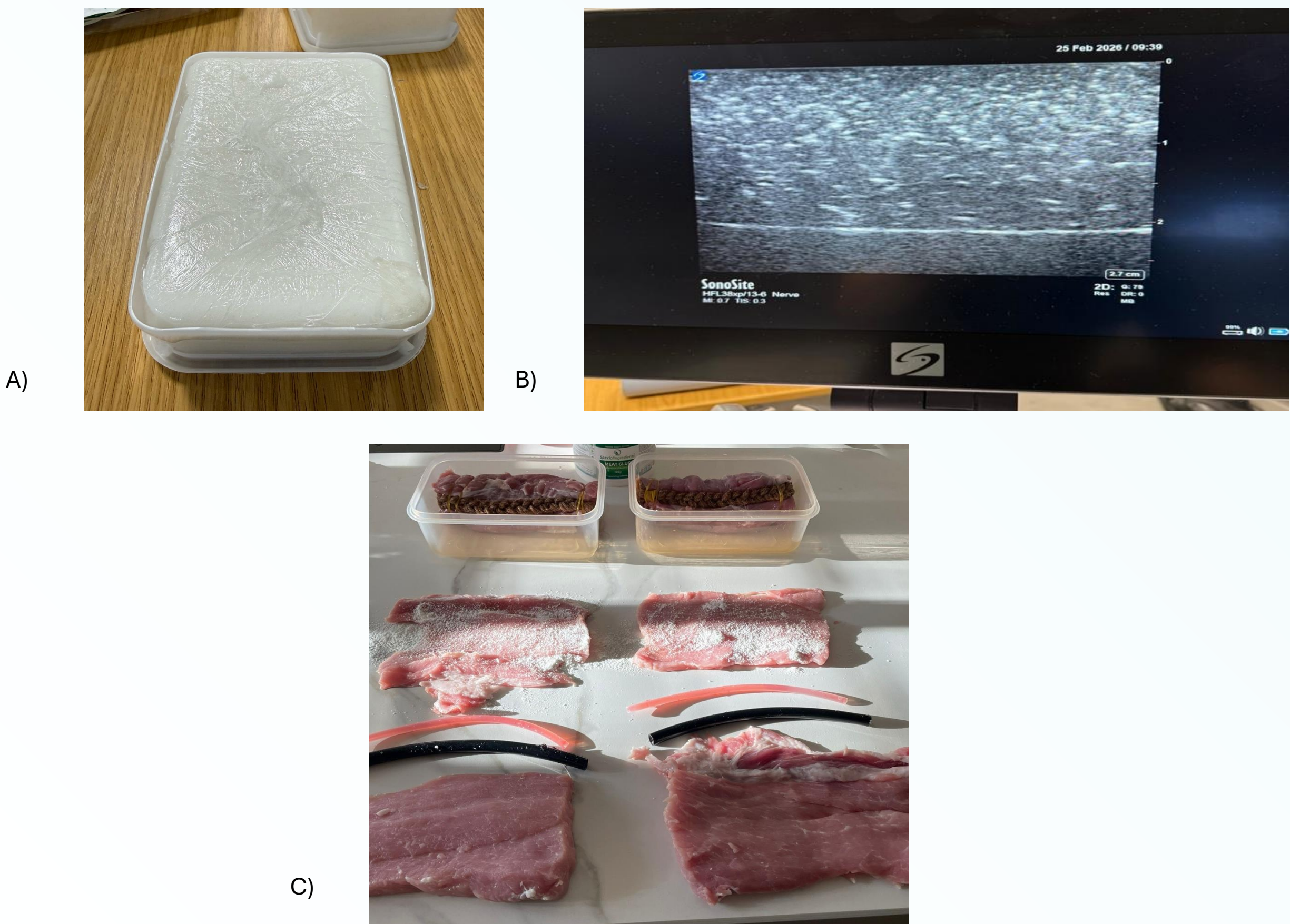


Figure 2. Alginate-based phantom model developed for regional anaesthesia training⁴. (A) External appearance of the model. (B) Ultrasound image demonstrating the visible simulated fascial plane, enabling realistic needle guidance and catheter insertion. (C) FIB meat phantoms production⁵.

Evaluation

- ❖ Delegate feedback collected after each course
- ❖ Follow-up assessing impact on confidence and clinical practice

Results

Key findings

- ❖ Feedback was consistently excellent across all courses
 - ❖ High value placed on 1:1 teaching and practical experience
 - ❖ Excellent balance of theory and practical teaching
 - ❖ Simulation models rated as excellent for learning
- ❖ 100% of delegates would recommend the course to colleagues

Delegate feedback

“Fantastic — so good I think there could be more candidates to enjoy it.”
“Real-time scanning with expert guidance, tailored to my clinical practice.”



Figure 3. Word cloud illustrating participant feedback from training courses

Impact

- ❖ Early follow-up suggests increased confidence in:
 - ❖ Performing regional anaesthesia
 - ❖ Supervising trainees

Discussion

- ❖ This work demonstrates progression from a pilot to a reproducible, peer-led training model, with simulation enhancing procedural realism while maintaining educational quality.
- ❖ Early findings suggest improvements not only in individual confidence but also in trainee supervision, supporting integration of regional anaesthesia into routine clinical practice.
- ❖ The inclusion of a train-the-trainer component provides a structured approach to developing trainer capability, supporting consistent and sustainable delivery of RA education.
- ❖ Our course is scalable and is being expanded across health boards, **next into Cwm Taff Morgannwg**.
- ❖ **We are attracting industry sponsorship to help with UK wide rollout as the next step, supporting the wider adoption of regional anaesthesia training.**

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