

## **Paediatric Emergencies for Anaesthetists: Are we meeting curriculum goals?**

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Critically unwell children can present to any hospital. 87% of hospitals in the UK do not have a paediatric intensive care unit<sup>1</sup>, meaning these children need stabilised prior to transfer to tertiary units. Key Capability O in the stage 3 Royal College of Anaesthetists 2021 Curriculum states that trainees should be able to 'provide emergency anaesthetic care for paediatric patients pending inter-hospital transfer to a tertiary unit'<sup>2</sup>. We surveyed all Stage 3 anaesthetic trainees in Scotland to find out about their experience and training in managing paediatric emergencies.

### **Methods**

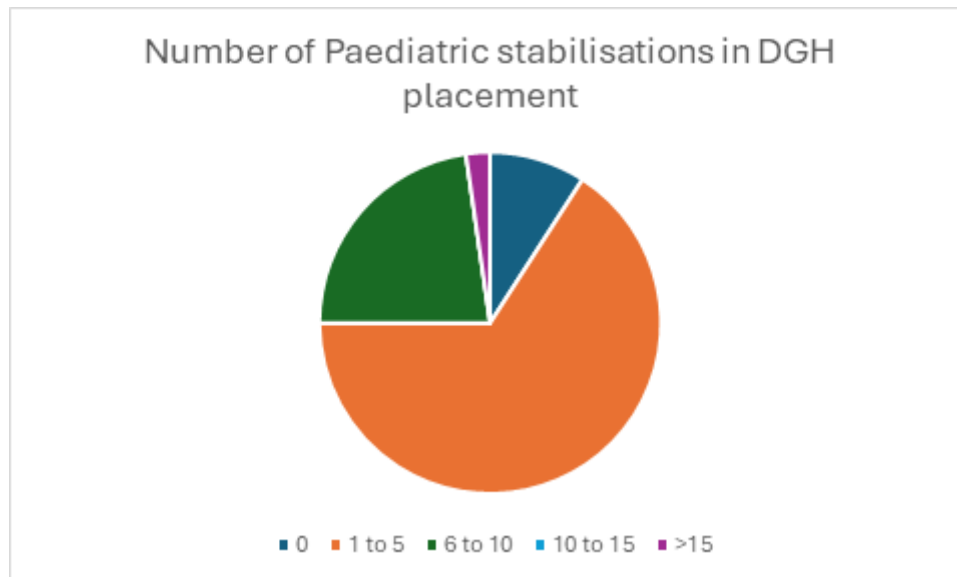
Our survey was distributed to stage 3 anaesthetists across all four Scottish schools of anaesthesia to capture those who are approaching the completion of training. However, we excluded those who had completed a Special Interest Area in paediatric anaesthesia as this would not be representative of the general experience of most trainees. We used email to disseminate the survey, utilising local networks and asking College Tutors in each of the deaneries to send the survey out to the stage 3 trainees in their area. Data was collected anonymously using online forms over a period of weeks and collated.

Within the survey we asked participants how many paediatric stabilisations they had been involved in within their district general hospital (DGH) placements, excluding any they have been involved with at tertiary paediatric centres. We then assessed their confidence in managing these scenarios at the time, how confident they would feel managing these stabilisations as consultants in a DGH setting and how they would feel managing specific scenarios as a consultant again within a DGH setting, including bronchiolitis, septic shock, head injury and drug preparation for emergency management. Finally, we asked trainees what specific training they had had, if any, in managing emergency paediatric scenarios.

### **Results**

We had 44 responses in total. When assessing the results, the majority of trainees had been involved in fewer than 10 stabilisations of paediatric emergencies as seen in Figure 1 below. 4 trainees had not been involved in any paediatric stabilisations in a DGH at this point in their training.

Figure 1



Trainee confidence in managing these scenarios was assessed using a 5-point Likert scale, with 5 being very confident and 1 being not confident at all. 22 trainees rated their confidence in managing a paediatric emergency as low, with the average confidence score 2.5 out of 5.

Figure 2 shows the average confidence score managing a paediatric stabilisation relative to how confident they would feel as a consultant, broken down by deanery. Whilst Figure 3 shows confidence managing the specific scenarios as described above, again divided by deanery and compared to the average. Some regional variations are seen but all scores represent similar trends across Scotland.

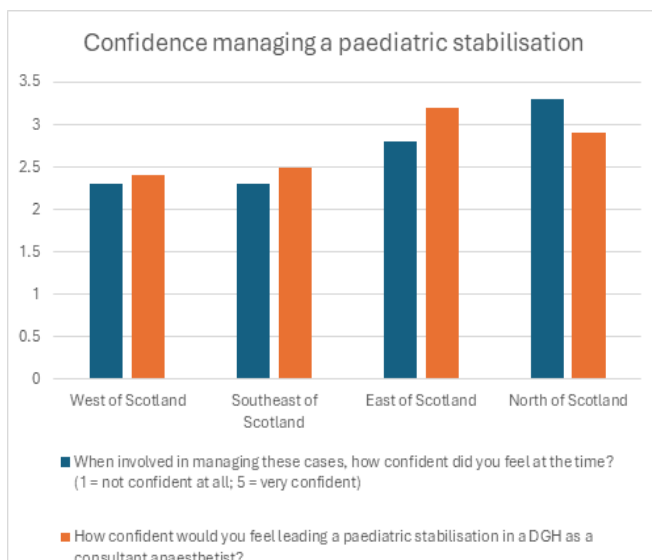


Figure 2

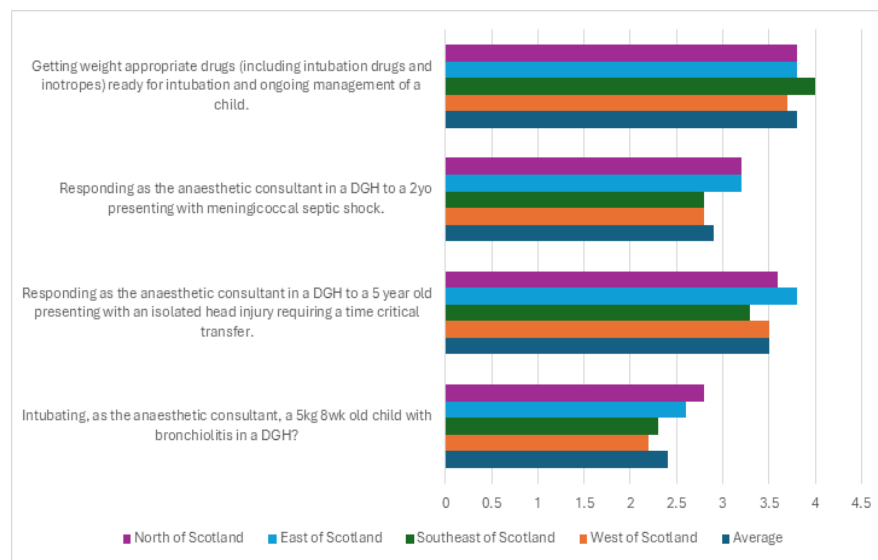


Figure 3

Training received by trainees was variable, with 17 out of the 44 trainees having had training to manage paediatric emergencies, ranging from attendance at an APLS course to specific local teaching.

## Conclusions

From our survey it can be seen that across Scotland, anaesthetic trainees approaching completion of training have had limited exposure and variable confidence managing critically unwell children. Average confidence managing paediatric emergencies is low across Scotland. With many Stage 3 trainees likely to be going on to work in DGH settings, being able and confident to manage a paediatric emergency and competency in paediatric stabilisation and transfer is a key skill all trainees completing training should have.

As a result of our survey, we have initiated a new Paediatric Emergencies for Anaesthetists (PEA) course aimed at providing this experience for the stage 3 trainees in the West of Scotland. The aim of this course is to augment the skills and knowledge trainees already have, and aim to increase their confidence in managing paediatric emergencies. Initial iterations of the course have shown an excellent response with trainees appreciating the learning opportunities and gaining increased confidence afterwards. Our plan is to share our course material so this can become a national course for Stage 3 trainees in Scotland. This will mean the trainees will not only meet Key Capability O but, more importantly, be prepared for life as a consultant anaesthetist.

## Acknowledgements

We would like to thank all those Stage 3 trainees who participated in our survey and the College Tutors of each deanery in Scotland for their assistance in disseminating the survey.

## References

1. At the Heart of the Matter. Report and findings of the 7th National Audit Project of the Royal College of Anaesthetists examining Perioperative Cardiac Arrest. Soar J, Cook TM editors. Royal College of Anaesthetists: 2023. ISBN 978-1-900936-35-4
2. 2021 Curriculum learning syllabus: stage 3. [Internet]. The Royal College of Anaesthetists. 2025 [cited 2025 Mar 20]. Available from: <https://rcoa.ac.uk/documents/2021-curriculum-learning-syllabus-stage-3/general-anaesthesia>