# IMPROVING ANAESTHETIC TRAINEE CONFIDENCE AND SKILLS IN THE INITIAL MANAGEMENT AND PREPARATION FOR TRANSFER OF THE CRITICALLY UNWELL CHILD

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## Introduction and aim

Northern Ireland has a single paediatric intensive care unit (PICU) within the regional tertiary centre. All critically ill children require transfer to this unit in Belfast. Anaesthetic trainees working in district general hospitals must be confident in the initial resuscitation, stabilisation and management of the critically ill child. As well as preparation for transfer which involves discussion with PICU and transport teams. Our aim was to provide a one day consolidated course focussing on these skills and to assess confidence levels of candidates before and after this training.

## Methods

CT3 trainees were invited to attend the course which included lectures, interactive workshops and multiple simulated scenarios. The faculty consisted of PICU consultants, tertiary paediatric anaesthetic consultants and anaesthetic consultants with a specialist interest in paediatric anaesthesia and experience in district general paediatric anaesthesia. Over two years of running the course, 22 candidates attended. Pre and post course surveys were completed by the candidates rating their confidence in multiple areas before and after the course as well as their overall course experience.

## Results

The candidates attending were fairly inexperienced in paediatric anaesthesia and resuscitation with only 50% reporting having received prior paediatric teaching during their training and 68% reported in being involved in 3 or less resuscitations of critically unwell children. Candidates rated their confidence levels in different areas of paediatric anaesthesia using a numerical rating scale (1-10 (1= least confident)) pre and post course. As regards managing the paediatric airway confidence improved 42% with the median confidence score improving from 5.5 (interquartile range (IQR) 3) to 8 (IQR 1). Confidence scores in preparing for the arrival of the unwell child improved 86% with a pre-course median score of 4 (IQR2) to 8 (IQR 1). There was a 123% increase in confidence in self-reported ability to resuscitate the critically unwell child with median confidence scores increasing from 3 (IQR 3) to 7.5 (IQR 1). Confidence in ability to prepare a critically unwell child for transfer improved 184% (median scores improving from 2.5 (IQR 1) to 8 (IQR 1). Candidates were also 63% more confident in communicating with the PICU team. 100% of candidates agreed or strongly agreed that the course would change their future practice, make their practice safer and increased their confidence. 95% of candidates gave the course an overall opinion of 'excellent'.

# Discussion

The course has been shown to improve self-rated confidence in all areas and all

candidates felt the course would change their practice thus improving patient safety. We feel it will improve care in critically unwell children prior to the arrival of the transfer team and admission to PICU. The course has become mandatory for all Northern Irish anaesthetic trainees.