

Total Intravenous Anaesthesia (TIVA) postgraduate education programme proposal

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Introduction & Aims: As well as having advantages over inhalation agents, total intravenous anaesthesia (TIVA) also offers a reduction in carbon footprint caused by anaesthetic gases which accounts for up to 5% of hospitals' CO₂ emissions in high income countries.¹ With the use of TIVA there are patient safety challenges arising from complexity of administration and lack of formal training. According to the 5th National Audit Project, a link exists between cases of accidental awareness during general anaesthesia (AAGA) and inexperience in TIVA methods which the 2020 Royal College of Anaesthetists Quality Improvement Compendium considers a priority subject.² This audit aimed to establish the volume of formal TIVA training received by trainee anaesthetists at a tertiary West Midlands hospital and propose a suitable education programme to address any gaps.

Methods: The number of formal TIVA training sessions attended by anaesthetics trainees at our hospital was collected via an anonymous online questionnaire between October and November 2022.

Results: There were a total of 17 responses (38% of all trainees) and a median of one (range 0–4) session attended. Most respondents (88%) were in higher specialty training and the number of training sessions attended increased with seniority - ST7 trainees (n=5) attended 47% of all sessions. In keeping with national data, our results indicate that formal TIVA education programmes need to be established to improve patient safety and add to sustainability efforts.

Conclusions: Our education programme is based on a framework by the Society for Intravenous Anaesthesia. It comprises four teaching sessions delivered at Novice and Intermediate training – three knowledge based and one practical session. A refresher is intended for those in higher training posts. Pre- and post-session quizzes and teaching feedback will be used to evaluate this quality improvement exercise, in conjunction with further research into number of AAGA cases with TIVA.

