

RCoA Research, Education & Travel Grants 2017

Award: Belfast Fund

Applicant: Dr Zoe Burton

Project Title: *Drug errors in paediatric anaesthesia: a cultural blind spot? A survey of UK paediatric anaesthetists Oral presentation at the European Society of Paediatric Anaesthetists (ESPA) meeting, Glasgow*

Project Description:

As a committee member of the national Paediatric Anaesthesia Trainee Research Network (PATRN), I conducted an iPad-based survey of drug errors amongst paediatric anaesthetists attending the most recent Association of Paediatric Anaesthetists (APA) meeting in Bristol, June 2017. This followed personal experiences of drug errors in paediatric anaesthetic practice. It was a novel method by which to capture data. The results were submitted as an abstract to the European Society of Paediatric Anaesthetists (ESPA) for the international meeting in Glasgow September 28-30th 2017 (see abstract below). It has been selected as one of the top 10 abstracts for oral presentation at the meeting. I am currently working on writing this up as a letter for the BJA.

I realise that the timescale of this meeting is sooner than would usually be supported by the timing of this grant. However, I have exhausted all other means of funding to attend the conference to present this work on behalf of PATRN. This will be PATRN's first oral presentation so is something of an achievement and I feel strongly about disseminating messages regarding the often neglected area of drug errors. As such, we would be extremely grateful for any financial support.

Drug errors in paediatric anaesthesia: a cultural blind spot? A survey of UK paediatric anaesthetists

Introduction: Recent data show drug errors occur with alarming frequency – 1 in every 20 drug administrations or every second anaesthetic procedure. Life-threatening drug errors occur more commonly in children, largely due to age/weight variations.

Aims:

- To evaluate the perceived frequency of drug errors amongst anaesthetists attending the Association of Paediatric Anaesthetists of Great Britain and Ireland (APAGBI) conference
- To survey reporting attitudes
- To identify potential areas of improvement

Methods: A SurveyMonkey questionnaire was designed by committee members of the Paediatric Anaesthetic Trainee Research Network (PATRN). Six questions pertained to respondents' experiences of drug errors in paediatric anaesthesia. This survey was conducted using tablet devices at the APAGBI conference June 2017.

Results: 162 respondents ranged from Core Trainee to Consultant (61.1%). 59.9% had been involved in ≥ 1 paediatric drug error in the last year (of which 14.8% ≥ 1 /month). Calculation/dilution errors accounted for 72.2% of all errors followed by "cannulae not flushed" and "wrong drug" administration. Paracetamol, antibiotics, muscle relaxants and opiates were the most common drugs/classes involved. 35.8% of respondents stated they would only report errors resulting in actual patient harm. Most likely causative factors

were distractions/interruptions whilst handling drugs, dose/dilution miscalculations and anaesthetist fatigue. A robust "no blame" drug error reporting and review system was the most frequently cited strategy to reduce errors. This was followed by limiting distractions and consistent appearances of drug preparations.

Discussion: Paediatric drug errors are a common problem amongst the anaesthetists surveyed. Anaesthetic drug handling has become a "cultural blind spot" with no significant changes in safety protocols over 60 years. Particular areas highlighted for improvement include "no blame" reporting systems and strategies to limit distractions during drug handling.