

## **RCoA Research, Education & Travel Grants 2016**

**Award:** The Sargant Fund & The Belfast Fund

**Applicant:** Dr Adam Hewitt Smith, East of England Deanery (currently Uganda based)

**Project Title:** *A pilot project to assess the impact of in-service simulation training on the ability of non-physician anaesthetists to safely deal with critical incidents in anaesthesia*

### **Project Description:**

In low-income countries such as Uganda, almost 100% of the population lack access to safe anaesthesia. Non-physician anaesthetists (NPs) work unsupervised in remote locations with insufficient resources. Until recently, opportunities for ongoing medical education (CME) in Uganda were extremely limited and the current diploma level training programme inadequately prepared NPs in the safe management of life threatening anaesthesia related incidents. A new Department of Anaesthesia has been established at Busitema University in Mbale, eastern Uganda and a novel BSc in anaesthesia is being started in 2017 to increase the countries' training capacity for anaesthesia providers. A simulation training centre has been set up at the University with a grant from University of California, San Francisco to support this competency based BSc programme.

This pilot concentrates on the NPs who are already providing life-saving anaesthesia care in the east of Uganda. It will provide them with a hugely valuable CME opportunity and improve anaesthesia safety in the region. They will be equipped with the confidence and skills required to manage anaesthesia related critical incidents during a one-day training package in a safe environment at the Busitema University Simulation Centre. A total of 24 NPs will complete the course which will focus on six commonly encountered critical incidents (e.g. laryngospasm).

In order to assess the impact and effectiveness of this new modality of training in eastern Uganda, NPs will be asked to complete pre- and post-course tests and a course feedback form. The tests will evaluate improvement in knowledge. In addition, NPs will be followed up after a period of one month to find out whether they have used the skills they were taught. They will be asked to describe specific examples in detail. After completion of this pilot, funding will be sought to expand across the region with a long term goal of providing one day of simulation CME for each anaesthesia provider every year.

Training will be provided without charge to the NPs and their attendance will be supported by free travel, meals and accommodation. A stipend has been included for three months to cover my living expenses in Uganda while I co-ordinate the project. The simulation training will be delivered by a Ugandan anaesthesiologist colleague and I. I am already in Uganda with six months of funding from the AAGBI to evaluate their Uganda Fellowship Scheme. This project will follow and will allow me to continue my work alongside my Ugandan colleagues to strengthen anaesthesia training and safety in eastern Uganda. Specifically, it will help to establish the newly created Busitema Simulation Centre as a centre for excellence for anaesthesia training in Uganda.

As an anaesthesia trainee from the UK, this opportunity will help me to develop my problem solving skills, my ability to think creatively whilst working in a resource constrained setting and build on my communication and team working skills. It will allow me to reflect on my own management of critical incidents as I provide feedback and support to the NPAs attending the training.