

SEA UK Travel and Research Awards

Applicant: Dr James Leedham

Project Title: Improving anaesthetic service provision at Lamb hospital in Bangladesh

Project Description

The project's overarching aim as suggested by its title is to improve anaesthetic services in terms of quality and safety. This is a very broad aim. However, I have planned meticulously over the preceding months and set a number of specific goals in order to meet this multi faceted challenge. These are explained in more detail below:

1. Teaching and training (my approach will be competency and curriculum based. I will obtain feedback, use scientific methods to determine which strategies work best and adapt accordingly).

a. The number of anaesthetic officers competent to staff the anaesthetic emergency on call rota needs to be increased. This is necessary to prevent exhaustion of the current anaesthetic officers and allow Lamb hospital to continue to offer routine surgical services. It will be achieved by me undertaking the competency based training of at least one novice anaesthetic nurse.

b. The non physician anaesthetists operate under physician supervision. I will provide instruction in the art and science of anaesthetics to Lamb hospital's surgeons and obstetricians so that they are better able to provide this physician oversight.

2. Introduce new equipment and ensuring its safe use

a. The hospital has recently acquired a standard Glostavent anaesthetic machine and I will be taking a portable Glostavent machine. Both are manufactured by Diamedica and highly suitable for this hospital. I will be training the non physician anaesthetists in the use of this new equipment.

b. I will evaluate Lamb's current anaesthetic equipment and perform a needs assessment. If deemed appropriate and cost effective I will introduce: better patient monitors (to include capnography, ECG and gas analysis), lifebox pulse oximeters, isoflurane, EZ-IO (intraosseous needle drills) and microcuffed endotracheal tubes. If making any changes to current practices I will look to establish audit procedures.

3. Benefits to Lamb hospital

a. Leave behind an emergency obstetric on call rota that is suitably staffed, functional 24/7 and sustainable for 2013 and beyond.

b. In line with the NIAA vision I want to instil a scientific culture within Lamb hospital's anaesthetic department. Delivering the key message that 'anaesthetists should be scientists with intellectual interests that extend beyond the walls of the operating room'. I will encourage the anaesthetic officers to be questioning, enquiring and take opportunities to perform bench tests with the new Glostavent machines.

4. Personal benefits

a. This visit will enable me to gain exceptional experiences of an educational nature over and above what is available in my UK training programme. This will predominately be in the fields of developing world anaesthesia, using scarce resources effectively, performing suitable anaesthetic techniques in a rural, remote location with poor infrastructure (operating draw over anaesthetic machines, using ketamine anaesthesia techniques).

- b. I will manage tropical diseases and late presentations of illness at the extremes of physiology. This is exemplified by the high prevalence of preeclampsia with associated pulmonary oedema a Lamb which will offer the potential for case series reports.
- c. Enhanced teaching skills –through adapting and developing techniques to overcome cross cultural and language barriers.
- d. Management skills development – review anaesthetic guidelines and protocols, take responsibility for the supervision of anaesthetic officers.

5. National Training

This project will benefit UK trainees both within and outside of the North west deanery considering similar ventures in the future. Not only will the project improve links and between the UK and Lamb hospitals anaesthetic department. I will be able to recommend Lamb for future OOPT periods or not.