Dear Editor,

My recent experience in working with a team in a developing country, has given me some insights which would be helpful to individuals desirous of increasing their operative and learning experience.

With the European work-time directive, the advent of target driven healthcare in the United Kingdom, and other changes in working schedule that have been imposed on trainees, it is no surprise that number of operations performed by senior house officers (SHO) and surgical registrars (SpR) have fallen over the recent years.

As a result of the decreased exposure and practice, trainees often take longer to complete their required clerkships and cases. Operative skills are limited at senior house officer level, and the surgical decision-making skills of trainees are also often under-developed.

Medical students are only a few years away from becoming surgical trainees, and similar restrictions apply to them during the surgical rotations they undergo during medical school. Due to the lack of basic surgical skills training as well as short placements with each specialty, it is difficult for medical students to receive practical teaching in surgery in a busy hospital.

Evidence has shown that up to 40% of medical students from the United Kingdom choose to embark on electives in developing countries. Humanitarian missions such as Operation Hernia are a unique opportunity to train medical students to become better rounded doctors.

Operation Hernia is an organisation dedicated to providing high-quality surgery to the people in developing countries who would otherwise not be able to afford or access such services. Its primary focus is elective hernia repair operations. The July 2012 Operation Hernia mission took place in the township of La Concordia in the Esmeraldas region of northern Ecuador. The mission team consisted of three consultant surgeons from the United States, West Indies, and Spain respectively, one specialist anaesthetist as well as a third-year medical student from the United Kingdom. We performed 77 hernia repair operations in 5 days.

This letter describes the training opportunities available during humanitarian surgical missions for medical students and doctors interested in a career in surgery.

1. Patient volume

During this mission, the medical student on the team was allowed to assist in 27 operations within 5 days. The large volume of patients seen and operated on allowed for the student’s observation of presenting symptoms and clinical examination findings for numerous patients with hernias in different locations.

Additionally, the student learned when not to operate. Due to considerations about equipment, facilities as well as follow-up, some patients with larger or more complicated hernias, or very young patients, had to be turned away because the surgeons decided that it was unsafe to operate on them under the circumstances. The approach and strategy to operate on the other patients, as well as any adaptations made that were found useful during the day, were also discussed. The medical student was included in all these discussions, as well as in numerous consultations with patients. It was an excellent experience in learning about surgical decision-making for trainees at any level.

2. Basic clinical knowledge and surgical skills

There was only one medical student on the team, so she received one-on-one tutoring in the theory as well as practice of hernia repairs (including surgical anatomy, basic surgical skills as well as the history of surgery) from each of the three consultant surgeons. She was allowed to do subcuticular and interrupted sutures for skin closures under supervision. She also received some teaching on anaesthetics and administration of local as well as spinal anaesthesia, anaesthetic drugs and monitoring during operations.

Since the length of time spent with a specialty has been shown to affect medical students’ eventual performance on residency exams, it is justified to encourage students, in addition to trainees, to participate in volunteering missions in their preferred specialties to improve the quality of trainees coming into the specialty programmes.

3. Management and theatre administration

Having administrated operating lists as well as the inventory of equipment, the medical student’s knowledge of theatre administration also expanded. Medical students at present receive little teaching on costs and the economics of healthcare distribution. With the NHS’ push for more cost-effective healthcare in the United Kingdom, it is important for trainees to know about relative equipment costs as well as the amount of equipment used in each operation. Learning from volunteer missions such as this can be beneficial in teaching trainees to avoid waste and to better utilise the equipment available to them.

4. Career guidance

Apart from clinical teaching and advice, the surgeons also offered the student career guidance and shared some perspectives on the current training climate for future surgeons. As it has been demonstrated that attachments and internships can influence career choices and goals of students, especially with regards to surgery, voluntary missions can also be instrumental in helping students decide on their future careers.
My experience has led me to conclude that whilst more evidence is needed on the most efficacious method to perform such training, and strategies are needed in order to concurrently develop sustainable training opportunities for local doctors; volunteer surgical missions can be an excellent avenue through which to train medical students with an interest in surgery.

**Ethical approval**

Professor Andrew Kingsnorth has reviewed the article on behalf of Operation Hernia and has found no ethical conflicts.

**Funding**

None.

**Author contribution**

Ms Angeline Lee: Conceptualised and wrote the article. Served as primary data-collector during the mission in Ecuador.

**Conflict of interest**

The author does not report any conflicts of interest.

**Acknowledgements**

The author would like to sincerely thank Professor David Rosin, Dr Daniel Scoppetta, Dr Constancio Marco, and Dr Renata Pieniek, the team members for the July Operation Hernia mission to La Concordia; as well as Professor Andrew Kingsnorth, founder of Operation Hernia, for their invaluable support and participation in the mission.

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1 April 2013

Available online 21 June 2013