International Journal of Surgery xxx (xxxx) xxx–xxx

Contents lists available at ScienceDirect

International Journal of Surgery

journal homepage: www.elsevier.com/locate/ijsu

Editorial

# Engagement and role of surgical trainees in global surgery: Consensus statement and recommendations from the Association of Surgeons in Training

ARTICLE INFO

*Keywords:*
Education
Training
Global surgery
Humanitarian surgery

ABSTRACT

*Background:* There is a wide chasm in access to essential and emergency surgery between high and low/middle income countries (LMICs). Surgeons worldwide are integral to solutions needed to address this imbalance. Involving surgical trainees, who represent the future of surgery, is vital to this endeavour. The Association of Surgeons in Training (ASiT) is an independent charity that support surgical trainees of all ten surgical specialties in the UK and Ireland. ASiT convened a consensus meeting at the ASiT conference in Liverpool 2016 to discuss trainee engagement with global surgery, including potential barriers and solutions.

*Methods:* A face-to-face consensus meeting reviewed the engagement of, and roles for, surgical trainees in global surgery at the ASiT Conference (Liverpool, England), March 2016. Participants self-identified based on experience and interest in the field, and included trainees (residents and students) and consultants (attending grade). Following expert review, seven pre-determined core areas were presented for review and debate. Extensive discussion was facilitated by a consultant and a senior surgical trainee, with expertise in global surgery. The draft derived from these initial discussions was circulated to all those who had participated, and an iterative process of revision was undertaken until a final consensus and recommendations were reached.

*Results:* There is increasing interest from trainee surgeons to work in LMICs. There are however, ethical considerations, and it is important that trainees working in LMICs undertake work appropriate to their training stage and competencies. Visiting surgeons must consider the requirements of the hosting centres rather than just their own objectives. If appropriately organised, both short and long-term visits, can enable development of transferable clinical, organisational, research and education skills. A central repository of information on global surgery would be useful to trainees, to complement existing resources. Challenges to trainees considering a global surgery placement include approval for placements while on a training program, financial cost and dangers inherent in working in a resource poor setting. Currently global surgery experience is generally as an out of program experience and does not count for certificate of completion of training (CCT). Methods to recognise surgical trainee global surgery experience as an integrated part of training should be explored, similar to that seen in other specialties.

*Conclusion:* There is a role for surgical trainees to become involved in Global Surgery, especially in partnership with local surgeons and with appropriate ethical consideration. Trainees develop translational skills in resource poor settings. Development of appropriate pathways for recognition of global surgery experience for CCT should be considered.

## 1. Introduction

Although inequities in the delivery of surgical care around the world have been identified by the World Health Organisation (WHO) [1,2], recent quantification has served to significantly focus efforts to address them [3]. The term ‘global surgery’ has been coined to describe this area of practice, reflecting the global health needs around health gaps in surgical care in resource poor compared to higher resource settings [4]. The stark differences in access to appropriate, safe, timely, and affordable surgical care are highlighted by the fact that 37% of the world's population undergo only 6.3% of the operations, of which 30% are caesarean sections [3]. Where patients are able to access and afford surgery, outcomes in low income settings compare unfavourably to higher resource settings, with risk adjusted mortality at least three times higher for emergency abdominal surgery [5].

There is growing evidence of the need for research and development in global health to tackle the enormous shortfall in quantity and quality of operations [6,7]. A major historical issue is the neglect of surgery relative to other global health issues such as specific infectious diseases e.g. malaria and HIV. The Millennium Development Goals did not prioritise surgery even though trauma, obstetrics and other surgically treatable conditions account for a large proportion of morbidity and mortality in low and middle income countries (LMICs) [8].

There is increasing recognition and interest from both trainees and senior surgeons in the need to address these inequalities [6]. For those

http://dx.doi.org/10.1016/j.ijsu.2017.10.033
Received 25 September 2017; Accepted 9 October 2017

interested in working in this field, there are many different approaches and organisations which aim to improve access, skills, safety or research across a broad range of surgical and allied specialties. These can involve short term visits to aid delivery of specific surgical services in a region, through to longer-term infrastructure or capacity building, lobbying, research, quality improvement and education.

Surgical trainees are the future consultants and surgical leaders, and are therefore integral to addressing global surgical capacity. Many doctors below consultant/attending grade would like to provide assistance in LMICs but are unclear how to approach this. There are also ethical and moral considerations, as to as what duties are appropriate to be performed in LMICs by qualified doctors who have not finished surgical training (residency) in their home country.

The aim of this consensus paper and recommendations is to answer the question: How can surgical trainees engage in global surgery, and what are the barriers and dilemmas they encounter in doing so?

## 2. Methods

This work was undertaken by the Association of Surgeons in Training (ASiT, www.asit.org), an independent professional body and registered educational charity working to promote excellence in surgical training for the benefit of patients and surgical trainees alike. ASiT is independent of the National Health Service (NHS), Surgical Royal Colleges, and specialty associations. ASiT actively supports global surgery through delivering international 'Foundation Skills in Surgery' courses in low income countries [9], provides grants for surgical trainees wishing to undertake work in such settings, and has supported a number of other charitable and non-governmental organisations with activities focused on global surgery.

### 2.1. Consensus meeting

A face-to-face consensus meeting was organised to review the engagement of, and roles for, surgical trainees in global surgery. The meeting was hosted at the annual ASiT Conference held in Liverpool, UK in March 2016, and the consensus meeting was publicised in advance as being part of this conference. Participants self-identified based on experience and interest in the field, and included both trainees (residents and students) and consultants (attending grade). Students were invited for both their experience and also as a means of engaging the surgeons of the future which is one of ASiT's main objectives.

### 2.2. Consensus methodology

Following expert review, seven pre-determined core areas were presented for review and debate at the face-to-face meeting (Table 1). Extensive discussion of these was facilitated by a lead consultant and a senior surgical trainee, both with expertise in global surgery. Discussions were held in both large and small group formats, and presented back. A record of the meeting was transcribed for later review. The draft derived from these initial discussions was circulated to all those who had participated, and an iterative process of revision was undertaken until a final consensus and recommendations were reached. This report is the result of this process. The authors and collaborators gave due consideration to the ethical dimensions of this consensus process, and no concerns were identified. Participation was taken as consent to participate, and all collaborators reviewed and approved the final statement and recommendations prior to publication.

## 3. Results

### 3.1. Consensus participants

The consensus meeting was attended by a total of 41 delegates (37% female) with broad representation of consultants, surgeons in training, foundation doctors, and medical students. These 41 delegates comprised 2 medical students, 15 foundation year 1 & 2 doctors, 9 Core surgical trainees, 10 higher surgical trainees, 2 fellows and 3 consultants. Attendees had a wide spectrum of experience in LMICs ranging from short term visits to longer term (> 6 months) placements and some were attending prior to their first experience in global surgery. The purpose of these visits included non-medical volunteering, clinical volunteering over a wide range of surgical specialties, and involvement with long-term partnerships.

### 3.2. Consensus recommendations

#### 3.2.1. Issues and considerations of working in low resource settings

The trainee surgeons in the group highlighted the importance of appreciating their limitations and competence with regards to operating in LMICS. A recurring theme was a real enthusiasm to work and provide assistance in low resource settings but an understanding that a certain level of experience is needed to be highly effective. The majority of attendees had first visited LMICs as part of medical school electives and gap years as an observer. This provided experience travelling in a developing world setting. A concern shared amongst the group was knowing what to expect, the level of supervision provided and the resources available, both physical and human. Language is an important consideration when choosing a country to work in, being able to speak in several languages is obviously beneficial and will widen the opportunities available.

**Table 1**
Core areas for consideration by consensus meeting participants.

| | |
|---|---|
| 1. | Issues and considerations of working in low-resource settings |
| 2. | Duration, timing, type and location of global surgery work |
| 3. | Support before, during and after global surgery placements |
| 4. | Funding and financial considerations |
| 5. | Factors in identifying an organisation to work with |
| 6. | Training boards and postgraduate recognition of global surgery work |
| 7. | Ethical considerations in trainee global surgery work |