

# Imperial College School of Medicine Surgical Society Annual International Trauma Conference

The *British Journal of Hospital Medicine* is pleased to publish the following winning (Gandhi and Wijesinghe) and second place (Chong et al) abstracts which were presented at the Trauma 2011 conference, Imperial College London on 19–20 November 2011.

## Evaluation of the evidence behind cervical spine immobilization in a pre-hospital setting: current controversies

### Background

The anatomy of the cervical spine predisposes it to injury. Annually, paramedics transport over 1 million people with suspected spinal cord injury, with a large number being secondary to an unstable cervical spine fracture; 20% of these patients die before hospitalization with a significant proportion suffering serious neurological deficits. These factors give pre-hospital cervical spine management high priority in the Advanced Trauma Life Support guidelines. However, such practice is being questioned as it lacks reliable supporting evidence.

### Method

A literature search was conducted to highlight the outcomes of various cervical spine assessment and immobilization techniques (e.g. Canadian C-spine rule) in both healthy and injured patients. The search strategy involved locating relevant articles on PubMed, Medline and the Cochrane Library using specific exclusion and inclusion parameters.

### Results

Analysis of randomized control trials and database reviews showed no benefit, using different immobilization techniques, of cervical spine immobilization on mortality or morbidity. Remarkably, few studies showed a paradoxical outcome, where the procedure had adverse effects on patients including increased respiratory drive and pain.

### Conclusions

Pre-hospital management clearly affects the overall outcome of the patient. Taking statistical evidence and clinical relevance into

consideration, maintenance of the integrity of the cervical spine after major trauma will have an important evidence-based role in time to come. Therefore, a clear cervical spine management pathway has to be established or the existing guidelines have to be modified in order to effectively manage victims of cervical spine trauma.

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## Global health and surgery in the UK

### Background

Around 90% of deaths from injuries in the world occur in developing countries, with surgical conditions accounting for up to 15% of total disability adjusted life years lost worldwide (Peden et al, 2002; Debas et al, 2006). However, only 3.5% of surgical procedures in the world are received by the poorest third of the world's population (Weiser et al, 2008).

### Aims and method

The UK is one of the key players in global health as the second largest donor to global public health (Department for International Development, 2011). The authors aimed to identify the role of the UK in the provision of surgical care in developing countries via a literature review.

### Results

The focus of provision of surgical care to developing countries by the UK is through voluntary and charity organizations. The Royal College of Surgeons of England has also been running a training scheme for doctors from developing countries (Kirk, 1991). However, there have been no formal twinning programmes that would allow UK doctors to train and perform surgery in developing countries. In America, several institutions offer residency programmes for surgical training in developing countries (Jayaraman et al,

2009). Such programmes are more effective than short-term missions, as there is long-term commitment to the provision of human resources, and investment in local health infrastructure and staff training. Other benefits include the promotion of uptake of surgical careers among the local medical student population and surgical research agendas that are relevant to developing countries (Ozgediz et al, 2008).

### Conclusions

Formal twinning programmes should be considered by the UK, given the positive experiences from America, as well as evidence from the World Health Organization demonstrating that such partnerships could address human resource shortages in developing countries (Crisp et al, 2008).

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Crisp N, Gawanas B, Sharp I (2008) Training the health workforce: scaling up, saving lives. *Lancet* **371**: 689–91

Debas HT, Gosselin R, McCord C et al (2006) *Disease Control Priorities in Developing Countries*. 2nd edn. Oxford University Press, New York: 1245–60

Department for International Development (2011) Provisional UK Official Development Assistance as a proportion of Gross National Income, 2010. [www.dfid.gov.uk/Documents/publications/1/2010-Provisional-Statistical-Release.pdf](http://www.dfid.gov.uk/Documents/publications/1/2010-Provisional-Statistical-Release.pdf) (accessed 5 December 2011)

Jayaraman S, Ayzengart Z, Goetz H, Ozgediz D, Farmer DL (2009) Global Health in General Surgery Residency: A National Survey. *J Am Coll Surg* **208**(3): 426–33

Kirk RM (1991) Overseas Doctors Training Scheme. *Ann R Coll Surg Engl* **73**(3 Suppl): 48–9

Ozgediz D, Wang J, Jayaraman S et al (2008) Surgical training and global health: initial results of a 5-year partnership with a surgical training program in a low-income country. *Arch Surg* **143**(9): 860–5

Peden M, McGee K, Krug E (2002) *Injury: a leading cause of the global burden of disease*. World Health Organization, Geneva

Weiser TG, Regenbogen SE, Thompson KD, Haynes AB, Lipsitz SR, Berry WR (2008) An estimation of the global volume of surgery: a modelling strategy based on available data. *Lancet* **372**: 139–44