



Andrew Milzein, 2003

Education and practice

Surgical training in east Africa

Injury, like HIV infection, is a growing epidemic in east Africa, and large numbers of injured people are at risk of death or lifelong disability because of a lack of basic surgical care. WHO has recently said that without improved surgical services, up to 10% of the population will die from injury and 5% of pregnancies will result in maternal death.¹ Surgical services in the region are inadequate, and recruitment to surgical training programmes is dropping as medical school graduates see better salaries and lifestyles elsewhere. There are relatively few trained surgeons (the Association of Surgeons of East Africa has 400 members, and the College of Surgeons of East, Central, and Southern Africa [COSECSA] has 300 Foundation Fellows) to care for more than 200 million people in the eight-country region.

Recruiting medical students and junior doctors to surgical training programmes is becoming more difficult. Clinicians across Africa complain that the brightest medical graduates choose public health because non-governmental organisations and foreign agencies pay more for research assistants and interpreters than doctors can earn in public hospitals. Lifestyle concerns, poor remuneration, and the risk of occupational exposure to HIV infection also affect individuals' decisions to undertake surgical training. Working conditions in district hospitals must be improved. Adequate government salaries and free access to HIV post-exposure prophylaxis are also key issues.²

African surgeons have responded to some of the educational needs by forming

COSECSA, which, with help from the Royal College of Surgeons of Edinburgh, has established a standardised regional curriculum, and will hold its first examinations for fellowship this year. Often the best surgery is done in private, mission, and NGO hospitals, so these are now being accredited as teaching institutions. COSECSA plans to extend surgical training to district hospitals, so that the workforce and patients will be more evenly distributed, and in the hope that trainees will remain in the districts in which they have trained.

A wealth of material and expertise from developed countries that would improve the curriculum could easily be shared. Many medical education programmes in North America and the UK have extensive online resources. The Ptolemy Project provides east African surgeons online access to the medical literature and assesses how they use the information.³ Essential surgical skills courses are now incorporated into the medical school curriculum in five countries.⁴ Advanced trauma life support training is needed in developing countries, but these courses are expensive and often contain protocols dependent on technology unavailable in African hospitals. The International Committee of the Red Cross runs war surgery seminars tailored to

local needs in war-torn areas and post-conflict situations. Where circumstances warrant, teaching subspecialist skills, such as burn contracture release, vesico-vaginal fistula repair, and maxillofacial reconstruction, would be of value.

All surgeons know they could improve their productivity, but this is more important in east Africa, where the lack of trained personnel is acute. With well-organised protocols and teams, one surgeon can manage many patients safely. Surgical outreach "camps" are a practical interim solution to delivering care in underserved areas, but legitimate concerns remain about results and follow-up. Evaluation is important to establish a baseline for judging new interventions and to direct focus to areas of greatest potential.

All these strategies require well-trained African surgeons in far greater numbers than are presently being produced. It is urgent to improve surgical working conditions, recruit more medical graduates, and give them skills to combat the growing burden of surgical disease, teach colleagues, and solve fundamental problems of surgical care in Africa. Western institutions could do much to help. Now is the time to act.

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- 1 Surgical and emergency obstetrical care at first referral level. <http://www.who.int/disasters/repo/12682.pdf> (accessed 16 June 2004).
- 2 Beveridge M, Burton K, Lett R, Barradas R. Priorities for surgical development in east Africa: results of the east African surgical initiative (EASI) delphi process. Presentation at ASEA Annual Meeting, Kampala, Uganda, 2003.
- 3 Beveridge M, Howard A, Burton K, Holder W. The Ptolemy project: a scalable model for delivering health information in Africa. *BMJ* 2003; **327**: 790-93.
- 4 Canadian Network For International Surgery. Essential surgical skill. <http://www.cnis.ca/cnis/ess.htm> (accessed 22 May 2004).