Simon Paul Smith

Queen Elizabeth Hospital, Blantyre, Malawi

April 2001- September 2001

When I started my six months' SAC recognised post at the Queen Elizabeth Hospital, in Malawi, I was keen to get stuck in. With only three orthopaedic surgeons for a population of twelve million, I felt there was a definite need, even for my limited skills. My new boss, however, insisted I acted as an observer during my first two weeks. At the time this was very frustrating, and felt a bit like regressing to medical student days, but in retrospect it was a very good move. For one thing, most of the pathology was new to me. More importantly however, I had to change my decision making to incorporate some dramatic differences: there was often only a single nurse for a ward of eighty patients, there was no post-operative physio or occupational therapy available, basic drugs such as morphine or even paracetamol were sometimes unavailable, blood was very limited (and only begrudgingly given in exchange for a pint from a friend or relative of the patient) and although theatres had the basic orthopaedic equipment necessary for most operations, there was not always the resources to use it optimally. The power drill was invariably broken (leaving plenty of hand-drills to use!), there was an image intensifier but no radiographer to operate it, and although the sets included a variety of external fixators, AO sets and K nails, there were often instruments missing or broken, and the theatre sisters' knowledge of the details of the various taps, screws and drills from the variety of complex sets was, understandably, often limited. Despite these difficulties however, there was an excellent working atmosphere, and there was very little that couldn't be "taken on" if there was a definite indication.

On the trauma side of things, there were two important sources of injury: rivers and roads. The presence of very poor drivers, driving very poorly maintained cars on awful single track roads lined with pedestrians ensured a steady influx of RTAs, whereas, in the rivers, the abundance of hippos and crocodiles provided another common, but more exotic, source of injury. Having come from the UK where AO tends to mean "Always Operate", it was fascinating to see almost all such acute fractures being managed conservatively (with the exception of open fractures). It was especially interesting to see that most patients did very well with basic conservative measures, the mainstay being traction and plaster of Paris. For example, all femoral fractures were treated with skeletal traction, K-nailing being reserved for the relatively uncommon non-unions. Seeing fractures that would have been invariably internally fixed in the UK, treated very successfully without surgery, was a real eye-opener for me, and I am unsure now as to how I would have my own femoral shaft fracture treated if I were to break it.

Amongst the successes of conservative treatments, there were also failures however, and often these were patients who had presented very late or had been inadequately followed up. As a result, a great deal of the surgical workload on the trauma side was made up of non-unions and malunions. A significant proportion of the non-unions were infected, particularly of the forearm and tibia. These were usually open fractures that had presented days or even weeks after injury. The availability of an Ilizarov-type

frame for some of these difficult problems would have been a real help. We did internally fix selected fractures in selected patients, particularly intra-articular fractures, but really the only absolute indications for immediate internal fixation was displaced patella or olecranon fractures. The remainder of the trauma workload was essentially plastic surgery (there are no plastic surgeons in the country) in the form of debridements, skingrafting and local soft tissue flaps.

The elective side was particularly interesting with much of the workload being musculoskeletal sepsis, tumours and paediatric problems. As one would expect, in a country where the mean life expectancy is 37 years, there was little in the way of the degenerative problems that make up so much of the UK workload. There was a huge amount of sepsis, and I saw more TB spine, osteomyelitis and septic arthritis in my first week in Malawi, than I had previously seen in my entire career. The most common paediatric problem was talipes equinovarus and I was involved in both the conservative (Ponsetti serial casting) and operative treatment of clubfeet. This varied from simple tenotomies and posteromedial releases through to massive tarsal wedge osteotomies for teenagers who had spent their lives walking on the dorsum of their untreated clubfeet. Other paediatric problems that we seemed to see with relative frequency included: Blount's disease, absent tibias, vertical tali, arthrogryphosis, syndactyly, metabolic bone diseases and femoral deficiencies. Practically the only paediatric problem that was not seen was congenital hip dislocation; the African method of carrying babies on the mothers' backs, with hips flexed and abducted, seemed to be more effective than any screening programme.

There were some theatre practices that were very different to the UK: at the start of the operating list it was not unusual for the whole theatre to stop and pray. Although I had never tried this before, there were times when it did seem to be a very good idea. Another custom I was unaware of was the fact that if the list overran, I would have to drive the entire theatre staff home (transport and safety were precarious after dark). This entailed driving around the local townships, in darkness, for an hour or two. I only overran once.

I had the opportunity to teach the orthopaedic clinical officers and Malawian medical students, as well as contribute to their exams, which was a lot of fun and very rewarding. There was also the opportunity to undertake "surgical safaris" to smaller district hospitals all over Malawi, taking basic surgical equipment in a four-wheel drive. These safaris generally consisted of a big clinic followed by a day or two of operating. Some of the pathology that presented to the more remote clinics was extraordinary and, within the limits of the available theatre resources, provided some very interesting operating. Research opportunities were abundant, and the department produces several international publications each year.

Inevitably there are a couple of negatives aspects. The general state of some of the wards and patients was pretty harrowing at times, especially during the first few weeks. There is the ever-present risk of operating on HIV positive patients (27% of women tested in Blantyre's antenatal clinic were HIV positive last year), and falciparum malaria is rife, particularly in the wet season (having contracted it at the end of my stay, I would strongly recommend taking anti malarial prophylaxis) Also,

there is no definite funding available, although there are various organisations that one can apply to including World Orthopaedic Concern, the British Orthopaedic Association and the Royal College of Surgeons of England. Outside of work, the entertainment options were somewhat limited: no cinema, no theatre, no TV, and darkness at six every evening. We read a lot of books, drunk a fair bit of Carlsberg (at 25p/bottle) and caught up on the previous ten years' sleep deprivation. At the weekends and holidays though, there were fantastic opportunities, with Lake Malawi, Mount Mulanje and several game parks within easy reach.

Overall I had a very rewarding six months. It was a refreshing change from the rigidity of Calman training in the UK, and has given me a completely different perspective on orthopaedics worldwide. I saw an abundance of pathology that is rarely seen in the UK and gained invaluable experience, particularly in the management of clubfoot, neglected trauma and musculoskeletal sepsis. I believe that other trainees should be actively encouraged to work in a developing country. The need for surgeons is desperate, and there are endless opportunities for surgeons from any speciality at any stage of training.

Most frequently performed operations: Comparison of My SpR Logbooks from Malawi and the UK

	UK	MALAWI
1	KNEE ARTHROSCOPY	CLUBFOOT SURGERY
2	MUA	WOUND DEBRIDEMENT
3	HEMIARTHROPLASTY	EXTERNAL FIXATION
4	ORIF ANKLE	DRAIN SEPTIC ARTHRITIS
5	DHS	OSTEOMYELITIS SURGERY
6	TKR	BIOPSY
7	METALWORK REMOVAL	OSTEOTOMY FOR BOW LEGS
8	SHOULDER ARTHROSCOPY	SSG/MUSCLE FLAPS
9	WOUND DEBRIDEMENT	ORIF FOR NON UNIONS
10	THR	MUA
11	IM NAIL	K NAIL FEMUR
12	TENDON REPAIR	ORIF PATELLA

Portrait Photograph of the Author