OUT OF AFRICA

Two orthopaedic surgeons' activities in achieving equity of health provision

One physician's achievement in eliminating river blindness

Tim Millar worked as a basic surgical trainee in Lancaster before embarking upon specialist training in orthopaedics. While preparing for his current post as a Clinical Research Fellow at Wrightington Hospital he visited the Bedford Orthopaedic Centre (BOC), Umtata, in the Eastern Cape of South Africa. There is a well-established link between the BOC and the United

Kingdom (UK) that was established in 1997 by Professor Chris McConnachie. Mr Millar was the seventh British

trainee to have made the journey with support from World Orthopaedic Concern.

Simon Radcliffe, a consultant orthopaedic surgeon at the Royal Lancaster Infirmary (RLI), was moved by the plight of people living in southern Sudan and with colleagues has resolved to find ways of funding a major development project.

TRAUMA SURGERY IN THE TRANSKEI

An orthopaedic journey

Tim MS Millar, MRCS

There are many ways to fill the hiatus that exists in the UK between basic and higher surgical training – I was fortunate to spend a very rewarding five months in the Eastern Cape in South Africa. Having completed basic surgical training in Lancashire I was ready to experience a different side of my chosen career path. This would allow me to gain valuable operative experience and learn about orthopaedics in a very different environment. With some surgical experience already behind me it would be an ideal time to consolidate my knowledge and I was ready to use this hiatus to my advantage.

Every year one or two British trainees make the journey to Umtata, usually for a period of four to six months. Professor McConnachie has remained very enthusiastic about this association and its mutual benefits.

The BOC is situated seven kilometres from the centre of Umtata, at the heart of the former homeland of Transkei. It has 250 beds, including 40 spinal beds and 8 high-care beds, serving as a referral centre for a mainly rural population of approximately four million people. An international staff of orthopaedic surgeons, medical officers, residents and students run the BOC and orthopaedic trainees from the UK and the United States are regularly invited to spend time there. Although it is a government-run hospital it has substantial financial backing from African Medical Mission – a charity set up in 1984 by Professor McConnachie.

On arrival I was assigned to work on the busy 60-bed male ward and joined a team run by two consultants (a permanent Indian surgeon and a visiting surgeon from North America). I was registrar, working with two medical officers, one from Zimbabwe and the other a South African. We were to share the emergency on-call commitment.

Patients often have to travel many miles from remote villages for orthopaedic review at the Bedford Orthopaedic Centre. Some make the journey the day before the clinic appointment and sleep overnight in the outpatient department.

Our mornings began at 8 am with a joint trauma meeting to discuss the cases admitted the previous day from clinic and those admitted as emergencies overnight. The BOC took referrals from the local teaching hospital in Umtata and the 30 or so surrounding rural hospitals. Patients, on a regular basis, have to travel for several hours on dirt roads, often in uncomfortable vehicles and with inadequate analgesia, to be assessed in Umtata. At the morning meeting decisions about management would be made jointly between the consultants. A ward round followed this to formulate operating lists for the forthcoming days. Most patients were admitted from the daily combined orthopaedic and fracture clinic and patiently waited their turn for surgery, often without argument or complaint, and some have to wait three weeks for urgent procedures.

High rates of tuberculosis (TB), malnutrition, polio and increasingly HIV (in addition to gunshot wounds, tribal violence and road traffic accidents) mean that there is a staggering array of orthopaedic pathology. Much of this presents at a very late stage and many patients have already sought the services of traditional village healers (the Sangoma). Many are referred from distant district hospitals where treatment has failed.

Due to the significant workload many patients may have to wait weeks for their operation. This is the busy orthopaedic ward showing some of these patients on traction prior to surgical intervention.

The BOC runs three operating lists a day from Monday to Friday, with anaesthetic cover from the nearby general hospital. The male ward has two full-day lists on Monday and Tuesday, a single full-day list on Thursday and a half-day list on Friday. We ran the joint fracture and orthopaedic clinic on Wednesday, often reviewing more than 150 patients. On average, we operated on seven patients a day in each of the theatres. Except for the very occasional electricity failure or water shortage there were very few interruptions to the operating. In addition, there were few limitations placed on the management of orthopaedic conditions, with a good supply of equipment available for internal fixation of fractures.

Most of the male patient workload was injury related:

Male orthopaedic workload over four months

Admissions	398
Theatre procedures	415
Trauma-related cases	357
Of which	
Motor vehicle accidents	52%
Assaults	24%
Gunshot wounds	7%

In addition, many patients had manipulations in the outpatients department and did not require admission.

Delayed presentation of trauma was very common – one example being a three-week-old elbow dislocation. When possible elective procedures were accommodated, however, very few elective arthroplasties could be performed.

During my stay I was involved in 327 cases, acting as principle surgeon in 247 of them. These included 81 manipulations, internal fixation of 27 femur fractures, 13 forearm fractures, 10 ankle fractures and 18 tendon repairs. We also performed eight limb amputations (mainly for trauma) and ten split skin grafts. Only eight hip fracture fixations were performed, reflecting the shorter life expectancy in South Africa. This complemented my operative experience as a senior house officer prior to leaving the UK. I was also involved in transthoracic spinal decompressions for spinal TB and correction of clubfoot. In addition, I was able to review textbook cases of TB spine, arthrogryphosis,

cerebral palsy, Blount's disease and rickets disease – cases very rarely seen in the UK.

Gunshot wounds accounted for 7% of admissions to the Bedford Orthopaedic Centre. This 34-year-old man sustained gunshot injuries to his right femur as he tried to escape from robbers. He progressed well following treatment at the Centre and was discharged six weeks following admission. (X-ray: Bedford Orthopaedic Centre)

The high trauma workload dictated that many fractures had to be managed non-operatively. This allowed me to learn the principles of traction treatment and cast immobilisation. As an example, most of the tibial shaft fractures were managed with manipulation and cast immobilisation.

The late presentation of complex foot and ankle conditions was common. This 14-year-old boy had been walking on a deformed foot for most of his life. After surgical correction he was able to return to school.

The Xhosa are a hardy race. They are very friendly and remarkably resilient – putting up with severe injuries and long and uncomfortable journeys, often without adequate analgesia. Umtata itself is a bustling vibrant city situated near the spectacular wild coast and within weekend reach of the Drakensburg Mountains. I found the whole experience invaluable and very rewarding and highly recommend it to any orthopaedic trainee. Thank you to Professor Chris McConnachie and his wife Jenny, Dr Paddy McGrath and all the other doctors at the BOC for providing all the support throughout my stay.