

“General surgery fellowship in Kwa-Zulu-Natal”

Mr Sidhartha Sinha,

Clinical Research Fellow in Vascular Surgery/SpR in General Surgery

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### Background

I undertook a 12 month long fellowship in general surgery at Ngwelezane Hospital in the state of Kwa-Zulu-Natal, South Africa from October 2009 to October 2010.

I had been planning such a fellowship since 2005 (after completing a basic surgical training rotation), having read favourable reports of similar experiences by colleagues and having received strong recommendations from a relative who had worked in a South African hospital for several years. These factors, combined with my own clinical interests (general, vascular and trauma surgery) and logistical considerations (English is commonly spoken in South Africa) were decisive in choosing South Africa as my destination

In the end, a number of factors delayed my departure (the lengthy process required to gain registration with the South African Medical Council, the introduction of MMC and my attainment of an Academic Clinical Fellowship) which, as it turned out, proved to be fortuitous as I feel with hindsight that it was only after completing a couple years of registrar level training that I was able to maximise the educational value of the fellowship.

### Preparation

At present, doctors who qualify in the UK can work in South Africa without having to pass the SA equivalent of PLAB examinations. UK doctors must, however, first gain registration with the Health Professional Councils of South Africa (HPCSA, the SA equivalent of the GMC). This can be an arduous (and lengthy!) process but frustrations can be minimised with adequate forward planning. The process of getting registered has three stages –

- 1) Verification of credentials by ECFMG (Educational Commission for Foreign Medical Graduates) – a body based in the USA: this involves completing forms which are available online and posting them to the ECFMG. The forms contain details of your medical undergraduate training. Once the paperwork is received by the ECFMG, it writes to the institutions you have trained at and asks for them to send back a verification report. There is a processing charge of \$150 and, in addition, it is well worthwhile creating a personal account with an international courier (such as FedEx) and allowing ECFMG and your medical permission to use the account to send the documents. This affords one the opportunity to track the documents and adds another \$50 or so to the expense. One should expect this process to take a minimum of 6 months.
- 2) Registration with the HPCSA: once credentials have been verified, ECFMG sends a report to the HPCSA. Registration requires completion of another lot of paperwork – this includes reports of

satisfactory completion of PRHO/Foundation training, evidence of good standing with the GMC and demographic details (e.g. proof of citizenship). One should allocate a further 6 months for this stage of the process.

- 3) Getting a job offer/work visa: this process can be difficult if attempted without assistance – South African bureaucracy should not be underestimated! Options are either to write directly to hospitals asking about vacancies or to use an employment agency such as Africa Health Professionals (see below).

#### Hospitals in South Africa and Africa Health Professionals (AHP)

South Africa has a public health care service like the UK but also a relatively large private healthcare sector. I only worked in the former. When choosing a public sector hospital in South Africa, applicants need to consider 2 things –

- 1) Whether a salary is required: if one wishes to earn a salary whilst working, one will be restricted to working in more rural hospitals which are under-subscribed by South African medical graduates.
- 2) The size of hospital: there are essentially 3 tiers to consider –
  - A) Big tertiary trauma/referral centres (e.g. Joburg General in Joburg, Groote Schuur in Cape Town, Inkosi Albert Luthuli in Durban).
  - B) Secondary level district level referral hospitals (e.g. Ngwelezane Hospital in KZN).
  - C) Primary local rural hospitals (e.g. Manguzi Hospital in KZN).

Posts in level A) hospitals tend to be available only as supernumerary (unpaid) positions. Level B) and C) hospitals tend to be under-subscribed and thus paid positions can be obtained.

The AHP is a “social profit” employment agency ([www.ahp.org.za](http://www.ahp.org.za)) which seeks to “support and enhance healthcare systems in Africa, by finding, placing and retaining healthcare workers in rural and underserved areas”. The AHP offers a service whereby it identifies job vacancies, liaises with SA government departments and efficiently facilitates the obtainment of a work permit for UK doctors – it’s use is highly recommended!

The salary offered for medical posts in rural hospitals is very competitive (indeed on a par with the UK) as the South African Government pays a substantial salary supplement as part of its “Rural Health Initiative” to attract doctors to work in under-subscribed areas.

#### Ngwelezane Hospital

Ngwelezane Hospital is located in the town of Empangeni (Fig 1). It is a 550-bedded hospital and is the referral centre for more than 20 peripheral hospitals in KZN. It serves a population of more than 3,000,000 people (Fig 2). Several services are provided by the hospital including general surgery, orthopaedics, general medicine, emergency medicine and intensive care (Fig 3). The general surgery department was staffed by 4 consultants each practicing the full breadth of general surgery (Fig 4). There were 2 adult wards each containing 50 beds and a separate burns unit which was covered by the general surgery unit. The adult ICU contained 7 level-3 beds and was staffed by a consultant

intensivist and a team of juniors. Operating facilities comprised 4 theatres and 1 endoscopy suite. There was a functional laparoscope, flexible endoscope and colonoscope. Women’s surgical services were provided at a separate hospital site and thus the only other specialty that general surgery was required to share space with was orthopaedics.

Firm structure comprised 3 tiers – consultant, medical officer (registrar equivalent) and intern (house officer equivalent). During my year at Ngwelezane, there were a minimum of 2 registrars and 2 interns per firm. The week to week timetable was very similar to what one would expect from a surgical unit in a UK hospital with an all-day general clinic, an all-day specialist clinic, 1 – 2 all day theatre lists and 1 endoscopy list. There was a weekly mortality and morbidity meeting along with a monthly academic meeting in conjunction with the orthopaedic department and the emergency medicine unit. On-call frequency varied from 1-in-5 to 1-in-7 depending on the number of registrars present from month to month and was 24 hours resident on-call without compensatory leave.

### Personal Experience

My experience was exactly what I had hoped for! It was characterised by a very high volume and breadth of cases spanning the full remit of general and trauma surgery. It was not an uncommon sight to arrive at the hospital in the morning and to be greeted with an emergency board similar to Figure 5! My first Saturday on-call comprised 7 laparotomies (and associated minor cases) with a further 5 laparotomies accumulated on the board by the morning! There was a heavy emphasis on trauma (both penetrating and blunt) and emergency surgery. Unfortunately the combination of rural poverty and high prevalence of HIV would mean that inflammatory pathology and malignancy would frequently present late and require emergent laparotomy. Aspects of trauma and emergency surgery learned are listed in Table 1. The vast majority of cases would be managed at Ngwelezane with only complicated cardiothoracic trauma and neurosurgical cases referred to Inkosi Albert Luthuli Hospital in Durban.

Exploratory laparotomy
Vascular trauma
Damage control laparotomy
Damage control thoracotomy
Laparostomy management
Emergency tracheostomy
Wound debridement
Amputation surgery
Split skin grafting
Emergency urological surgery

Emergency hernia surgery
Rigid and flexible endoscopy

Table 1 – Aspects of trauma and emergency surgery learned

Elective surgery cases were also hugely varied with several operations (now devolved to other specialties in the UK) remaining under the remit of the general surgeons. Thus paediatric hernia surgery, urological procedures and thyroidectomies were commonly listed.

Perhaps the greatest draw of Ngwelezane was the support offered by the consultants. They were extremely welcoming to all trainees and made one feel a genuine part of the team. Elective lists were treated as training lists with all procedures demonstrated first and then directly supervised. When support was needed for out-of-hours cases, it would require a single phone call and the consultant on-call would come in to assist. Consultants were always present in specialist clinics which provided an excellent learning environment to assess patients and to learn about the unique pathologies indigenous to the area.

During my year at Ngwelezane, I performed 475 cases including 48 trauma laparotomies (Figure 6). Particularly memorable cases and moments included the treatment of a man attacked by a shark off the coast of Mozambique (Figure 7), a woman attacked by a buffalo in a game reserve and referred from a peripheral hospital after exploration of her abdominal wall laceration proved to be deeper than thought – she had a near transection of the duodenal-jejunal junction (Figure 8) and completing an elective operating list during a power cut (Figure 9).

Further education opportunities were present including regional ATLS courses (at a fraction of the cost of the UK course) and the internationally recognised Definitive Surgical Trauma Care (DSTC) course.

#### Social Aspects

Ngwelezane has a long tradition of hiring UK doctors and thus there is a well established social setup to help newly arrived trainees settle in. The majority of doctors live in a seaside village called Mtunzini (Zulu for “place in the shade”). Mtunzini is located about 40km from Empangeni (an easy 30 minute drive) and is a particularly picturesque retreat – indeed it is very popular as a holiday destination with South Africans. It offers a very high standard of rentable accommodation (Figure 10) and the cost of living is low in comparison with the UK. Recreational activities are plentiful (e.g. cycling, swimming, surfing and kiting) and there is ample opportunity to explore local (e.g. the city of Durban, the Drakensberg mountain range [Figure 11] and local game reserves [Figure 12]-and more far afield (e.g. the city of Johannesburg and the Kruger National Park, neighbouring countries such as Mozambique, Lesotho and Swaziland). There is a very lively social scene with regular “braais” (barbeques) and parties held at doctors houses.

#### Recommendations and Cautions

As will be obvious from the tone of this report, I highly recommend such a fellowship to other trainees. I have further developed and consolidated my surgical skill set and gained a unique understanding of working in an entirely different healthcare system.

I have listed below some suggestions and cautions for others wishing to embark on a similar path in the future.

#### Suggestions

- 1) Plan your fellowship at least 12 – 18 months in advance and get started on the ECFMG verification as soon as you can.
- 2) Use AHP to help you find a job and get a work permit.
- 3) For those who are interested in such matters, it is possible to continue to contribute to the NHS pension whilst you are away. You need to write to the NHS Pensions Agency and ask for “Individual Direction Status”. You will need to pay both employer and employee contributions during this time.
- 4) Plan on needing approximately £5000 to purchase a second-hand car at the start of your fellowship. Particularly in rural SA, public transport is not a viable option for commuting and driving will be necessary. The positive aspect of this is that second-hand cars do not depreciate in value much and so you will recoup most of the initial outlay by selling the car on at the end of the fellowship (often to an incoming medic!).
- 5) Many rural hospitals have vacancies in other departments such as anaesthetics and medicine and so for trainees with medical partners, a year abroad does not have to mean a year apart!

#### Cautions

- 1) Do not embark on such a fellowship at too early a stage of your training: proficiency with basic surgical skills should be considered a pre-requisite and it is unlikely that the level of proficiency required will have been attained without some registrar level training in the UK. A trauma laparotomy in an unstable patient is not the right time to learn basic tissue handling skills and much less instrument handling and knot tying!
- 2) Do not embark on such a fellowship if your expectation is to learn advanced surgery (e.g. laparoscopic colorectal surgery or endovascular techniques) – the opportunities for this will be limited.
- 3) Be aware that HIV is endemic and thus constant vigilance is needed when operating. Having said this, I was able to complete my year without a single needle-stick injury and so this should not be considered unachievable.
- 4) Crime is less of a concern than in the major cities but is present nonetheless. Common sense and a basic amount of risk assessment are recommended when staying in South Africa.

#### Acknowledgments

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Thanks to Dr Zoe Smith and Dr Ali Bott for supplying the photographs used in Figures 2 and 12.



Fig 1 – Location of Ngwelezane Hospital



Fig 2 – Aerial photograph of Ngwelezane Hospital (kindly supplied by Dr Zoe Smith)



Fig 3 – Services provided by Ngwelezane Hospital



Fig 4 – Consultant surgeons at Ngwelezane (from top left, clockwise, Mr I Thirsk, Prof P Barker, Ms M Govender, Mr S de Kock)

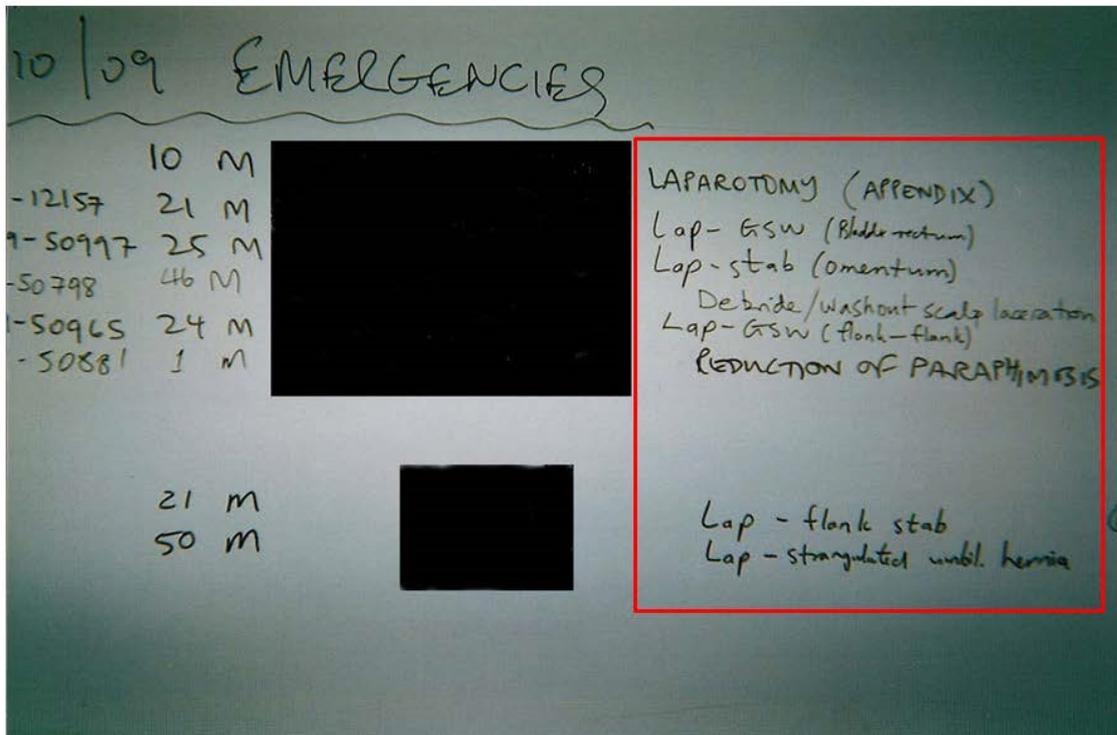


Figure 5 – Example of cases accumulated on emergency list

- **Logbook**
- **475 cases in 12 months**
- **Trauma laparotomy = 48**
- **Other laparotomy = 49**

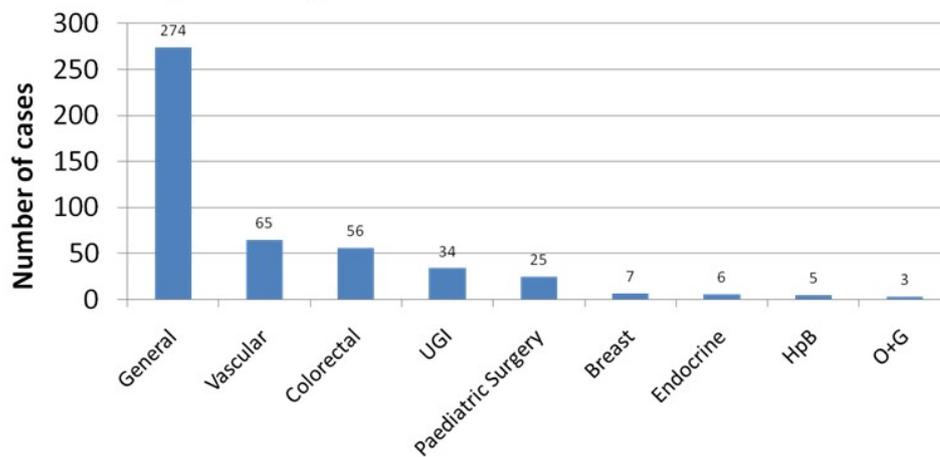


Figure 6 – Breadth of cases performed during fellowship at Ngwelezane (specialty classification as defined by the ASGBI surgeon’s logbook)



Figure 7 – Shark attack victim



Figure 8 – Pre-operative photograph of woman attacked by a buffalo and sustaining a near complete transection of the duodenum



Figure 9 – Operating by torch-light!



Figure 10 – Rental accommodation in Mtunzini



Figure 11 – Hiking in the Drakensberg mountains



Figure 12 – Residents of Hluhluwe-Umfolozi game reserve (photos kindly supplied by Dr Ali Bott)