



SCHOLARSHIP REPORT

This report should be completed by recipients of awards and scholarships from the Royal College of Physicians and Surgeons of Glasgow on completion of the activity for which they received their award or scholarship. Please complete all sections of the report form.

Please return your completed report via email to: **scholarships@rcpsg.ac.uk**

Or via mail to: **Scholarships Committee Administrator, Royal College of Physicians and Surgeons of Glasgow,
232-242 St Vincent Street, Glasgow G2 5RJ, UK**

Please use typeface when completing this form.

SECTION 1 PERSONAL AND AWARD DETAILS			
Title	Dr	PID	87658
Surname	Grant	Forename(s)	Christopher
Scholarship/award awarded	Volunteer Scholarship	Amount awarded	£2500

SECTION 2 PROJECT/VISIT DETAILS	
Name/Title	Voluntary Medical Registrar
Location	St Francis' Mission Hospital, Katete, Zambia
Aims and objectives	<p>To provide medical registrar cover for a secondary care level regional hospital in rural Zambia</p> <p>To gain insight into the practicalities and challenges of delivering healthcare in a resource limited setting</p>
Summary <i>Include methodology, results and conclusions if applicable</i>	<p>St Francis' Hospital is a Christian Mission Hospital on the outskirts of the rural area of Katete, Eastern Province, which is a secondary level healthcare facility serving a local district population of 200,000 people. It is also a referral centre for the Eastern Province of Zambia with a population of approximately 1.5 million people. There are 350 beds divided amongst adult medical, paediatric, maternity, gynaecology and surgical wards. There are approximately 21,000 admissions per year in addition to around 100,000 outpatient clinic reviews. The hospital supports 28 rural health centers in the district. It is especially focused on providing care and treatment to the most vulnerable in society. It has a predominantly Zambian staff of 400, but also receives volunteers from overseas to compensate for a national shortage of clinical staff.^{1,2} There is approximately one doctor per 10,000 people in Zambia compared to twenty eight per 10,000 in the UK.³</p> <p>The hospital is expected to provide clinical services for the western half of the Eastern Province of Zambia, receiving referrals from Petauke, Nyimba, Chadiza and partially Mambwe districts, however, patients from the eastern half of the province (Lundazi, Chama, Chipata, etc) also come to St Francis' in large numbers. This is because St Francis' has a reputation for good quality healthcare since the hospital's inception in 1947. Unfortunately, this creates strain upon staffing, medical supplies and financial resources. The hospital budget, in addition to its medical, paramedical and administrative staffing levels as well as the available facilities are not adequate to satisfy the required services of the large number of patients seeking treatment.²</p>

The national shortage of clinical staff means that the hospital is reliant upon international doctors who volunteer for a minimum period of six months. These doctors provide a valuable service to a rural Zambian population the majority of whom are subsistence farmers with limited financial resource that would otherwise have no access to secondary healthcare services.⁴

I accepted a six month voluntary post as a medical registrar working in internal medicine which began on 6th January 2020. As the most senior general medical trainee in the hospital, I was responsible for:

- Conducting teaching ward rounds in each of the two 40 bed internal medical wards, caring for female and male patients admitted with a range of communicable & non-communicable diseases
- Daily out-patient duties managing communicable and non-communicable disease, together with emergency assessments of patients triaged from the emergency department
- Rotating through the 'High Cost' outpatient department for managing fee paying patients whose payments contributed significantly to hospital financing
- 'On call' out of hours emergency medical cover for male and female medical admissions, inpatients and medical patients admitted to the intensive care unit
- Reviewing referrals from other departments within the hospital for medical guidance
- Presenting at the weekly hospital mortality meetings on behalf of the department of internal medicine
- Presenting at the weekly hospital clinical meetings on behalf of the department of internal medicine
- Presenting at the weekly internal medicine radiology teaching sessions
- Daily teaching and supervision of medical staff including clinical officers, clinical officer students, medical licentiates, medical licentiate students, junior medical doctors and senior elective medical students.

In preparation for this voluntary post, I undertook a Diploma in Tropical Medicine & Hygiene at the Liverpool School of Tropical Medicine from August to November 2019.

Unfortunately, due to the COVID-19 pandemic, I had to return to the UK at short notice on 18th March 2020 as advised by the UK Foreign and Commonwealth Office.

1 - St Francis' Mission Hospital - <http://www.saintfrancishospital.net/about-1/index.html>

2 - Friends of St Francis' Mission Hospital - Health Stats - <https://www.supportstfrancishospital.org/health-stats/>

3 - The World Bank Group - <https://data.worldbank.org/indicator/SH.MED.PHYS.ZS>

4 - Friends of St Francis' Mission Hospital - About Us - <https://www.supportstfrancishospital.org/about-us/>

<p>Learning outcomes</p> <p><i>Detail here how the aims and objectives were met</i></p>	<ol style="list-style-type: none"> 1. To provide medical registrar cover for a secondary care level regional hospital in rural Zambia 2. To gain insight into the practicalities and challenges of delivering healthcare in a resource limited setting <p>My time working in St Francis' was rewarding, humbling and enriching on both a personal and professional level, but it was, without doubt, the most challenging experience of my career to date.</p> <p>A typical week would begin at 8am on Monday morning with the internal medicine morning handover. We would hear about new admissions, unwell patients and deaths from the weekend on call doctors. We were updated about 'stock outs' (unavailable items) from both the pharmacy stores and laboratory services. Typically, these would include medications (eg morphine / IV furosemide / long acting insulin), investigations (eg K+ / blood cultures) and other therapeutics (eg red cell transfusions / high flow oxygen) upon which we are heavily reliant in standard UK medical practice. After any other announcements for the week ahead, our work would begin with our roles being previously decided as per the rota. I was either assigned to the male or female medical ward or outpatient department with or without a responsibility for medical referrals or the high cost private clinic service. Generally, we had two doctors in each area although this would depend upon staffing. Typically, each ward would have around 25 to 30 patients on any day. We would either conduct the ward round as a pair (particularly if one of the two assigned doctors could speak Chichewa) or individually. Our ward round would be accompanied by half a dozen nursing students and three or four clinical officer students. It was very difficult trying to review patients via a translator, teach and involve the students and yet ensure the round was complete in a timely and conclusive manner. I was struck by how many patients were admitted with complications of chronic non-communicable diseases including hypertension, diabetes, asthma and heart failure. A substantial proportion of the medical inpatients had HIV infection with a varying degree of associated complications. We would usually finish the ward round by 1 or 2pm allowing a break for lunch before coming back in the afternoon to address any outstanding tasks, namely, discharging patients, requesting investigations, admitting new arrivals from the outpatient department, speaking to families, undertaking any necessary procedures and helping the team in the outpatient clinic. Lumbar punctures were commonly required due to a clinical concern of bacterial or cryptococcal meningitis although frequently patients and their families would refuse such a procedure due to its perceived association with death amongst community elders. Abdominal paracentesis and intercostal aspiration were also frequently required both diagnostically and therapeutically. We would aim to meet for an evening handover between 1630 and 1700 from which point one of us would be on call until 0800 the following day.</p> <p>The on calls could be exhausting. Our accommodation was within the hospital grounds and I kept my mobile next to my bed while I slept. When called, I frequently had to rush to the hospital with limited information on the relevant patient's clinical condition. Death was, sadly, a common occurrence. Patients may arrive critically unwell having been seen by a witch doctor for several days or longer. They may instead have been receiving treatment at a local community hospital having travelled many miles to reach St Francis'. They may require high flow oxygen, inotropes, vasopressors, renal replacement therapy, antiarrhythmics or DC cardioversion, but such treatments were not at our disposal. These were available in Lusaka, our tertiary referral centre, but transport was costly, limited and patients may simply be too unwell to survive the six and a half hour road journey to the</p>
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	<p>capital. Travel overnight was simply not an option due to road safety as road lighting was insufficient. Transfer of patients required approval from the head of internal medicine prior to that of the medical superintendent. Decisions to transfer such patients were by their nature, very difficult, and consequently relatively infrequent.</p> <p>The outpatient clinics were extremely busy. At the beginning of each day, several hundred patients could be packed into the outpatient court yard. All were triaged by a nurse with a set of observations and told which area to attend (ie medical / surgical / gynaecological / paediatric). There was indeed order to the chaos. Most patients we saw were being managed with chronic conditions including diabetes, hypertension, asthma, chronic kidney disease and heart failure. Management was challenging for such patients who had to deal with frequent drug shortages necessitating ad hoc changes to treatments based on availability. Many patients travelled very long distances to attend. The hospital had access to limited overnight accommodation for patients who had to travel home the following day. We were fortunate to have the guidance of the head of internal medicine who had trained in the UK, but worked in St Francis' for three years and sub-Saharan Africa for over ten years. He was very experienced, approachable and hard working and essentially offered a 24/7 third tier senior on call supervision throughout our time. His experience was invaluable.</p> <p>It was very unfortunate that my planned six month voluntary post was curtailed as a result of the COVID 19 pandemic. However, during my three months in St Francis', I tried my best to provide good quality care to patients and their families. I hope that I provided some sort of sustainable benefit to the community by active participation in the teaching of medical and nursing staff and students.</p>
<p>Evaluation</p> <p><i>How has this scholarship/award impacted on your clinical/NHS practice or equivalent?</i></p>	<p>Without doubt, my experience of working in St Francis' will always be with me.</p> <p>On a professional level, I would hope that I have improved my clinical skills and judgement as situations frequently demanded that I make time critical decisions based only upon my bedside clinical assessment. We didn't have the luxury of a plethora of investigations that were resulted in a timely manner. In my NHS practice in the future, I think I will genuinely question the added value that an investigation is likely to have before simply ordering it without due consideration.</p> <p>On a personal level, I certainly gained an insight into the challenges of working in a resource limited setting. It was the first time in my career where I would frequently know the management plan I wanted to institute, but the medication / investigation / intervention was simply not available. A further significant challenge was trying to decide in conjunction with a patient what genuine benefit a management option could offer against the real sacrifice that a patient and their family may need to make in order to pay for such an intervention. Certain investigations were only available in Chipata Central Hospital (eg CT scans) and at significant cost to patients and their families. It made one question the true benefit of an intervention before recommending it to a patient. It was a vivid and humbling experience which makes me appreciate how fortunate we are to have a universal healthcare service offering free care at the point of use on an equitable basis in the UK. The staff working in St Francis' were doing an incredible job in extremely difficult conditions with inadequate funding, resources and staffing. I hope that I was able to contribute positively during the short time I was working in the hospital.</p> <p>Donations to St Francis' Hospital can be made at: https://www.supportstfrancishospital.org/</p>

SECTION 3 | IMAGES











SECTION 4 | EXPENDITURE

Breakdown of expenditures

Please demonstrate how the scholarship/award funding was used to support your project/visit

Return flights Glasgow to Lusaka: $679.51 + 100$ (modification 1) + 110 (modification 2) = £889.51

Accommodation in Lusaka (4 nights): $4 \times 40 = 160$ USD (£126.26)

Work visa: 50 USD (£39.46)

Vaccinations (Rabies / Hep A & Typhoid / DPT): $3 \times 58 = £174$

Antimalarial prophylaxis: £32.76

Supplies (urine dipsticks / pulse oximeter / power surge protector / mosquito repellent / mosquito net / torch) = £71.16

White coat $\times 2 = £17.95$

Indemnity cover: £120.98

Travel insurance: £99.72

Total = £1571.80

Balance remaining = £928.20

Donation to St Francis' Mission Hospital Emergency Medicines Fund = £928.20

SECTION 5 | PUBLICATION

Scholarship/award reports may be published in College News. Please tick here if you agree to your report being published.

☒ I give permission for my report to be published in College News

If your report is selected for publishing, the editor of College News will be in touch to discuss this with you.

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