ELECTIVE (SSC5b) OBJECTIVES

Write out your submitted objectives from STEP-1 below.

OBJECTIVES SET BY SCHOOL
What medical conditions are prevalent in urban Zambia and how does this differ to rural Malawi and the UK? Livingstone is a city in southern Zambia with a population of around 130,000 people. It is a tourism centre as it is beside Victoria Falls on the Zambia/ZImbabwe border. As such, it is relatively prosperous and many people find employment in the tourist industry. I found that there was a difference in which medical conditions were prevalent in this urban centre in comparison to those in rural Malawi and the UK. For a start, there was very little malaria. In the whole 3 weeks I did not see a patient presenting with malaria, whereas in Malawi I was seeing multiple people a day with it. This is due to differences in climate and geography that meant that malaria was not as prevalent in the region around Livingstone. As an urban centre, there was more cars on the roads. This, combined with a poor level of road safety meant that I saw more road traffic accident victims in comparison to Malawi (where there is still a low standard of road safety, but less cars). Similar to Malawi, there was a large number of patients (especially children) presenting with burns sustained from falling into flames used for cooking in the home. There also seemed to be less patients that were HIV positive in Livingstone, in comparison to the large number of HIV positive patients I was seeing in the rural clinic in Malawi. This was an unusual observation as according to UNICEF, Zambia has a higher prevalence of HIV and HIV in usually more prevalent in urban centres.
2 What level of healthcare is available in a Zambian District General Hospital and how does this differ to rural Malawi and the UK? Livingstone General Hospital was much better in terms of resources and investigations available in comparison to the clinic in rural Malawi. The hospital had dedicated Paediatrics, Obstetric & Gynaecology and Internal Medicine departments. In addition it had 2 theatres with anaesthetists and trained scrub nurses. In Malawi, the only blood tests I could order were Hb levels, malaria parasite screens, rapid malaria diagnostic tests and blood glucose levels. In Livingstone they had the ability to do full blood counts, urea & electrolytes and liver biochemistry. They also had imaging department that could do ultrasound, X-rays and even a CT scanner. In terms of staffing, each department generally had 2 consultants, with 5 or 6 junior doctors working under them. This was in addition to a large number of nurses, student nurses, midwives and clinical officers. In terms of staff to patient ratio, I would say it was better than what you would get in a UK DGH. However, despite the better resources and staff numbers than the rural clinic, the standard of care was not the same as would be expected in a UK DGH. There was still some overcrowding in the wards, with patients lying on mattresses on the floor. The surgical specialities had to share the 2 theatres and equipment, meaning that they could only operate on one/two days a week - with no buffer for emergency cases. Some medication was also in short supply. I found that, like in Malawi, some of the equipment was not of the standard we would have in the UK. For example things like blood taking equipment and cannulas would be poor quality making them difficult to use.

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OBJECTIVES SET BY STUDENT
3 What are the common surgical presentations in urban Zambia and how are these different to the UK? What steps are taken to ensure anaesthetic safety during surgery and how does this differ to the UK? As mentioned, there were a number of consultant surgeons at the hospital providing general surgery, orthopaedic and obstetric & gynaecological surgeries. They were supported by a small anaesthetic department and a number of scrub nurses (and groups of training scrub nurses from two different schools of nursing). Unexpectedly, the most common surgical presentation I saw was inguinal hernias. In the general surgery clinic and on the wards around half of the patients had an inguinal hernia. I asked the consultant why the prevalence was so high and they put it down to the large number of people that work in manual labour (heavy lifting is a risk factor for inguinal hernias). When with the O&G department, the majority of the surgery was cesarian sections, most of which were 'emergency' as planned C-sections were uncommon, though becoming more popular. I also saw a number of sterilisation procedures (Bilateral Salpingo-oophorectomy) for women that did not want to have any more children. I thought this was unusual as I didn't think such elective procedures would be common in this relatively low resource setting. In terms of surgical safety and anaesthetics, there was a number of differences between Zambia and the UK. Most surgeons preferred to use spinal anaesthetic, in fact, every surgery I saw was carried out using spinal instead of general anaesthetic. I suspect this is partly because of the resources required to induce, maintain and monitor someone under general anaesthetic. Whilst both theatres had anaesthetic machines, they were not used - even for monitoring. During the surgery the only monitoring was a pulse oximeter. Even this was not continually monitored by an anaesthetist as both theatres shared one anaesthetist. One marked difference for me was the lack of a surgical safety checklist before and after the operation. The WHO checklist is mandatory in UK hospitals and has been credited with improving surgical safety globally, including in low resource settings. Other differences included a lack of cauterisation equipment, so there was slightly more bleeding and ligation of arteries during surgery. Methanol was also used to disinfect the skin before an incision was made.
4 To be a useful member of the team at the hospital. To assist them in providing a high standard of care to the local community. To be able to understand the needs of the patients that I see and use my clinical skills and knowledge to meet those needs. In the casualty department I was able to see patients and initiate management plans. One advantage was that a lot of people in Zambia speak English, so there was no need for a translator. However, on the wards I played a much more observational role, partly because of the large numbers of medical and nursing staff available. Despite this, there were a number of instances when I had to initiate emergency treatment after recognising that a patient was deteriorating whilst waiting for the rest of the medical team to arrive. This was a good learning experience and made me feel useful and part of the team.

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