

ELECTIVE (SSC5b) REPORT (1200 words)

A report that addresses the above four objectives should be written below. Your Elective supervisor will assess this.

Objective 1

The most common medical conditions that I have seen during my elective at Manguzi hospital have been HIV and TB, often in co-infected patients. The effect of these conditions will be discussed further under objective 3. I have also noted the high frequency and severity of infections, particularly abscesses and cellulitis, presenting to Manguzi hospital compared to my experience in the UK. It seems likely that the poorer hygiene conditions and delayed presentation to hospital are the reasons for the higher incidence of such infections in this rural hospital. I have also noticed a high frequency of severe burns in young children in Manguzi hospital. This high frequency is due to families in this rural area living with open fires for cooking and heating, particularly as I visited Manguzi in their winter months. I have been surprised by the high frequency of hypertension and type 2 diabetes mellitus in the Manguzi hospital, comparable to the high frequency also seen in the UK. These conditions are particularly seen in patients from more urban areas of the region, whereas they appear to be more rare in more rural communities. Therefore they are more common in people that follow a more Western lifestyle which is more sedentary and with a diet higher in fat, sugar and processed foods.

The clearest differences in the clinical management of patients at Manguzi hospital compared to the UK are the restrictions imposed by lack of resources. This was particularly clear in patient diagnosis. A limited fund for blood tests means that each test needs to be carefully considered, for example it is common to order just an ALT test rather than a full liver function test. Furthermore several diagnostic tests that we use commonly in the UK are not available in Manguzi, such as CT scanning. This means that there is a much stronger reliance on clinical signs and the diagnostic tests that are available, for example lumbar punctures are used far more frequently than I have observed in the UK. Similarly, often second or third line treatment strategies have to be used when the ideal treatment is not available.

Objective 2

South Africa has a two-tier healthcare system, a large public sector and a smaller private sector. Manguzi hospital is a public hospital. Similarly to the structure of healthcare in the UK, I have seen a mixture of community primary healthcare clinics and both inpatient and outpatient care at Manguzi hospital. Community clinics provide management of chronic conditions and are predominantly staffed by nurses, with doctors from the hospital visiting each clinic weekly. Therapists from the hospital also make visits to clinics, in addition to home visits. Although community clinics aim to act as gatekeepers to Manguzi hospital, in a similar way to the role of GP practices in the UK, many people bypass these clinics and present straight to Manguzi hospital. If patients require management that cannot be provided by Manguzi Hospital they are referred to one of the larger hospitals in the region.

In addition to the clinical healthcare offered in Manguzi, many local patients visit traditional healers, known as Sangoma. This can mean that patients often present to hospital with a significant delay

from the onset of symptoms as they have first visited and been treated by healers, before presenting to hospital when symptoms do not improve or worsen. The herbal medications given by these healers often complicate the diagnosis of a patient as it can be difficult to differentiate between the effects of the original medical condition and the effects of the herbal medication used to treat that condition. Although alternative therapies are used in the UK, these are not used as commonly as in Manguzi and do not generally have such dangerous effects.

Objective 3

As mentioned previously, HIV and TB are both far more frequent in South Africa than in UK populations. Both are generally considered in the differential diagnosis for any patient whose diagnosis isn't clear and the majority of patients are tested for HIV while in hospital. Although many patients have well controlled HIV, I have been surprised by the high number of patients with extremely high viral loads and low CD4 counts, whereas in the UK the HIV patients I have seen have generally been well controlled. There appear to be several reasons for this but it seems largely to be due to poor compliance with ARV medication. This could be caused by poor understanding of HIV, anti-HIV stigma and difficulty obtaining medication because of long travel distances to clinics and poor medication supply at clinics. Compliance with ARV medication is particularly low in children and is often due to their condition not being disclosed to them by their parents.

Two of the most common effects of HIV on patients that I observed at Manguzi hospital were TB and cervical carcinoma. I was shocked to hear that doctors here estimate that 1 in 10 women with HIV will develop cervical cancer and 1 in 5 women with HIV will die from cervical cancer. Currently women with HIV undergo cervical cancer screening once a year. However, I saw several cases of women being diagnosed with cervical cancer during pregnancy, suggesting that the screening is not extremely effective in this region of South Africa.

In addition to the direct effects of HIV on a patient, I have observed the side-effects of ARVs, such as DILI and renal failure. Another difficult side-effect of ARVs is that they lead to lower efficiency of hormonal contraception. Since appropriate contraception is a large problem in the Manguzi population, this effect of ARVs exacerbates this problem. The side effects of these medications can be another reason for the poor compliance. Also, such side effects significantly complicate the choices of ARV regime, particularly when patients are simultaneously being treated for TB.

However, as in the UK, HIV patients who engage with healthcare in Manguzi Hospital actually have a higher life expectancy than an average citizen in the area. This is due to the frequency of their clinical appointments leading to earlier diagnosis and management of any comorbidities than patients with less frequent clinical contact.

The frequency of TB in Manguzi hospital is higher than in the UK for several reasons, with major reasons being the high prevalence of HIV and the poor living conditions of the majority of the local community. I've been especially surprised by the frequency of MDR in the community and Manguzi hospital has a ward solely for their treatment. Many of these patients present for the first time with MDR TB, meaning that they are being exposed to MDR in the community. Such patients have much longer hospital stays and poorer outcomes compared to treatment sensitive TB.

Objective 4

I feel that I have contributed to the MDT at Manguzi Hospital. I have worked with both doctors and nurses during morning ward rounds, in the outpatients department and in the resus unit. I have also had the opportunity to help occupational therapists while in the paediatrics department. The daily morning meetings have been especially useful to get an overview of the organisation of the hospital. I feel that I have most improved my practical skills, with many opportunities to try several practical procedures that I haven't previously had the chance to carry out. These have included lumbar punctures, pleural taps and arterial blood taking from neonates. Additionally, I was able to assist the clinical team in the resus unit in the resuscitation of a 18 month old child. I have also developed my examination skills by examining clinical signs wherever possible and have again seen many signs that it would be rare to see in the UK, such as cardiac tamponade, Kaposi's sarcoma and large abscesses. My inability to speak the Zulu language has limited my practice of communication skills, however when given the opportunity I have clerked some patients using a nurse as a translator.