ELECTIVE (SSC5c) REPORT (1200 words)

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

Describe the pattern of tuberculosis, its transmission and it's effect on healthcare in Belize. How does this differ from the UK?

Belize has a high rate of Tuberculosis (TB). Prevalence and incidence rates are 39 and 37 per 100,000 respectively in 2013 according to the WHO. This compares to an incidence of 12.3 per 100,000 in the UK. Prevalence data, is less reliable due to a high cure rate. The cure rate in Belize is only around 55% of cases in patients without HIV. This is likely due to poor adherence and poor services for those who fail to adhere to treatment regimens. Where as the UK would provide "Directly Observed Treatment" for those with known poor compliance.

For such a large health problem, TB services are relatively underfunded in Belize. Around $100,000US is spent annually and this is entirely government funded, with no involvement of external agencies. Something which differs greatly to other health related initiatives in Belize.

These figures are surprisingly high given the vaccination program that has been in effect since 1995 with a high uptake rate of 92% in 2014. This is in contrast to the UK where vaccination is only available in targeted, high risk areas, a contentious issue amongst many.

Describe the differences in healthcare provision between the private and public health care system in Belize. What are the advantages and disadvantages of this compared to the current UK system?

All Belizean citizens are entitled to free, government funded healthcare. The hospital I worked in was a publicly funded hospital. Most hospitals in Belize are secondary care centres. These hospitals provide a wide range of services, and cater for most inpatient needs. In the western regional hospital, there was a high demand on the obstetrics and gynaecology departments. Birth and fertility rates in Belize are comparatively high compared to that of Western Europe.

Free primary care is, in reality, essentially non-existent. Therefore the hospital runs a daily walk in clinic. Most patients are seen initially by one of up to 4 general practitioners on duty that day. Where referrals are necessary the GP can send to the patient to one of multitude of specialty clinics that run on an almost daily basis. Patients will then be allocated a place in this clinic on an ad hoc basis, usually at the end of the consultants pre- organised list. The main advantage of this was that the patient would be seen be a specialist the same day without the need for lengthy referral and acceptance procedure that is seen in place in the UK. However organising this when a same day appointment was not possible was often left to the clinic nurse. Therefore potential for patient losing patients was high.

Staffing levels in publicly funded hospitals were generally good. The hospital, which had 2 25 patient wards split between medicine and surgery, a maternity wing and a 6 bed A+E department was staffed by around 20 doctors in total. This left 2 junior or trainee levels doctors on each ward; 2 in A+E with

an oncall consultant; a team in the operating theatre, and clinic staff. Each wardround was attended by a representative from the nursing team and an infection control nurse.

Provision of equipment for the running of a ward was good. However most sterile packs for procedures such as suturing were non-disposable. Surgical area were also often short of scrubs and so some doctors opted to bring their own clean one. This could be a potential source of infection. Service provision, however, was limited. Particularly surprising was that the hospital did not own an automated blood gas sampling machine so Arterial blood gases were not seen as a first line investigation in the critically ill patient, all blood gases were analysed manually. Also Belize had only one publically available CT and MRI scanner in the country, this was located an hours drive away in Belize City.

I did not have the opportunity to work in a privately funded hospital. Although I interviewed several doctors in the hospital about their experiences. The main difference noted was the provision of radiological equipment. Each hospital generally had at least a CT scanner.

Describe the measures taken in Belize towards achievement WHO Country Cooperation Strategy 2008-11 of improving HIV/AIDS treatment and the treatment of other other communicable diseases.

HIV/AIDS is a common problem is Belize. It is one of Belize's most prevalent diseases. Presentation to hospital with an AIDS defining illness is now increasingly rare. Incidence of HIV is now also falling.

The hospital itself had little to do with the prevention of HIV transmission as many of the schemes are run "top-down" by the department of health. These are mainly poster campaigns and education in small countries (see figure 1). Condoms are legal in Belize despite a high catholic population and HIV transmission between hetrosexual partners has been supplemented by family planning awareness in schools.

In 2000 the National AIDS commission was formed, this agency has a number of goals including improving treatment and prevention of HIV/AIDS. Treatment is being improved by forming national guidelines with funding from the Global Fund Project Round 9. Antiretrovirals (ARTs) have been in use for many years in Belize however, these new guidelines include when, how and what combination of ARTs to use. Particular importance is paid to medication adherence and pretreatment counselling, both factors which are shown to affect outcome in HIV treatment worldwide.

Prevention of AIDS defining illness incidence been targeted by promoting good nutrition throughout treatment.

Describe any challenges experienced practicing in a different clinical environment i.e. did you have to change your history taking style? Describe measures taken to overcome these and how they can improve your future practice.

The day to day running of a ward was very similar to that of NHS hospitals. There was a consultant ward round everyday where the juniors presented the case and the team devised or augmented a management plan.

The main difference I encountered was the language barrier. Belize is officially an English speaking country. However, it is either heavily accented or contains remnants of the Caribbean Creole language which contains some slang English and therefore was often quite hard to understand. The further inland you go, the Spanish influence on the country increases and the most popular language changes to Spanish. In the UK, medical interpreters are generally widely available and doctors are encouraged to make use of them. However, after spending a number of weeks in these area, my Spanish has dramatically improved and I am now considering taking Medical Spanish proficiency exams in order to return to the region in a more qualified role in the future.

Another situation that arose, was when a patient arrived in a surgical clinic for incision and drainage of an abscess which lay over the temporal artery. I thought that in the UK it would be prudent for a junior surgeon to carry out this procedure in theatre due to the albeit small, but real, risk of dissecting the artery. When I raised this with the consultant, it was apparent that although they accepted the risk, the resources were not available for every patient to undergo this sort of procedure in a theatre environment.