ELECTIVE (SSC5b) REPORT (1200 words)

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

This elective undertaken in Cusco and Puerto Maldonado was an interesting experience in part due to the differences in healthcare between both regions of Peru. For instance, when in Puerto Maldonado, infectious diseases was a common problem and I observed many patients with such presentations. These were in particular tropical diseases such as dengue, malaria, chikungunya, leptospirosis and leishmaniasis – diseases that I have not commonly observed in the UK. Such diseases were rife due to the tropical climate, with the former 3 being spread by mosquitos and the last spread by sandflies. Infectious diseases spread via water or food was also common, in part due to poor sanitation and hygiene habits. For instance, food left out on the table often had to be covered by a net or risk being covered by a swarm of flies within a few minutes. Despite these measures, flies could often be spotted inside the net resting on the food. Additionally, adequate sanitation such as soap for handwashing was often not available. Tap water is not considered safe to drink. The hot and humid climate added to the risk of food spoilage and growth of bacteria. The combination of all of these factors attributed to the high rate of infectious diseases in Puerto Maldonado

By contrast, there were fewer patients with infectious diseases in Cusco. This was probably due to the high altitude resulting in a temperate climate resulting in fewer mosquitos and insects and thus a lower risk of the transmission of infectious diseases. Additionally, the relevant affluence of the population as compared to Puerto Maldonado and as a result better living conditions also contributed to a lower rate of infectious diseases. Instead, in Cusco I saw a range of presentations fairly similar to those seen in the UK, such as benign prostate hyperplasia, hypothyroidism, back pain, osteoarthritis and neurological issues such as migraine and Guillain-Barre syndrome. Interestingly, metabolic syndrome was a common issue in Cusco, in part due to the local diet of chicken and chips (not unlike Whitechapel!), with several patients having a low HDL cholesterol level and a high LDL cholesterol level.

While in the hospital and rural clinics in Puerto Maldonado, I had the opportunity to observe the management, prevention and public health measures against infectious diseases. For example, dengue was classified into 3 categories based on severity. The first, or least severe, required merely daily outpatient monitoring (e.g. heart rate, blood pressure, monitoring of symptoms such as nausea/vomiting and abdominal pain); the second required hospitalization; the third required hospitalization with ITU support. Both preventive measures and public health measures had a significant overlap, the majority of which aimed to stop the growth of mosquitos. Locals were educated in the importance of the use of mosquito nets, the avoidance of the build-up of stagnant water (e.g. cleaning out drains and gutters) which promoted the growth of mosquitos and the importance of long sleeved shirts and trousers and insect repellent especially when entering tropical regions or during dusk. On a regional level, fumigation of residential areas was also carried out to kill off mosquitos. By contrast, such stringent measures against mosquitos were not implemented in Cusco. Indeed, this is probably comparable to the UK, as the UK is not rife with infectious diseases spread by mosquitos, and the mosquitos that *are* present do not transmit much disease.

One of the most interesting aspects of this elective was the opportunity to undertake a placement in rural clinics and observe how healthcare professionals practiced rural medicine. For instance, Jorge Chavez, one of the rural clinics that I had the opportunity to visit in Puerto Maldonado, had limited resources – patients would walk into A&E with a presenting complaint, get a provisional diagnosis, and leave the clinic to pick up their medications and equipment (e.g. needles and syringes) from a local pharmacy before returning to the hospital for treatment. Despite the lack of resources, I was amazed at how much the staff were able to do with so little. The most memorable case was a patient that I assisted with – he had a very deep cut to his scalp that the nurse attended to at A&E, with the patient actually riding off on his motorcycle to

fetch the sutures and needles before the nurse washed the wound thoroughly with iodine and anaesthesized the area with lidocaine before stitching the edges together, all whilst being provided with very little privacy behind a screen (that staff and patients would peek behind anyway!).

It was also at Jorge Chavez clinic where they performed the monitoring of low risk dengue patients, which was an interesting experience for me to sit in and watch as I had never seen so many people with dengue before. At yet another rural clinic called Millenial clinic, I learnt about the distribution of infectious diseases across Puerto Maldonado, along with learning about the monitoring and treatment of patients with leishmaniasis. Additionally, upon speaking to some locals I learnt that the locals found healthcare very expensive in that part of Peru, with the consultation fees and medication sometimes taking up an entire month's wages. The locals attributed to the corruption within the government, although how true that is I am unable to say.

Whilst Puerto Maldonado was generally a rural town with local clinics offering limited services, there was one large hospital called Santa Rosa Hospital which provided a range of services. Despite this being the main hospital within Puerto Maldonado, it was a far cry from the hospitals found within big cities – its size probably matched that of a district general hospital in England. The healthcare and services offered there however, were definitely of a wider range than those available at the rural clinics.

By contrast, the hospital I attended in Cusco was similar to any London hospitals, both in terms of size and services provided. Whilst healthcare was still expensive to the locals, the relative cost in terms of income was not as great as that in Puerto Maldonado. The only noticeable difference was the investigations ordered by the doctors, with cheaper investigations often preferred over more costly ones. For example, an elderly with breast pain was referred for an ultrasound scan, whilst in UK the recommended investigation would have been a mammogram. Additionally, I learnt a few different techniques in terms of examination from the doctors in Cusco (and had them laughing at my examination technique when I sat on the patient's foot to check for the knee ligaments!).

Lastly, one of the major challenges faced on this elective was the language barrier between myself and the patients and staff. This is as the most widely spoken language in Peru is Spanish, and I myself had zero knowledge of Spanish prior to the elective. Despite having Spanish lessons whilst on the placement, the learning curve was incredibly steep with the staff often having to translate things to English for me. One thing I was incredibly thankful for was how medical terms, and in particular medications, were often phonetically similar to the names in English, and thus helped with my understanding greatly. Additionally, I began to appreciate the importance of communicating with patients – it is tremendously difficult to perform any examination if you cannot give the patient clear instructions on what you want them to do.