

## **ELECTIVE (SSC5b) REPORT (1200 words)**

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

**For my elective placement, I travelled to the MRC Unit The Gambia. This is a research unit that is run by the MRC and has 3 sites in The Gambia. I was based mainly at their main site in Fajara, where the Clinical Services Department consists of 3 bays on the inpatient ward (male, female and paediatrics) and a busy outpatients department. Prior to embarking on my elective, I set 4 objectives for me to address:**

**1. Describe the infectious diseases that are seen at The MRC Unit The Gambia and compare to the common infectious diseases seen in the UK.**

**I am interested in infectious diseases and particularly tropical medicine, which is part of the reason why I chose to come to The Gambia for my elective. The diseases that are commonly seen in The Gambia depend heavily on the season, with a high incidence of malaria during the rainy season (June-October). During the dry season, respiratory diseases are more common. My placement (April-May) was during the dry season, and I didn't see any malaria cases at all (although if I was in a different part of the country I probably would have). Malaria is rare in the UK and the only cases that are seen are in returned travellers from endemic countries.**

**During my placement I saw many cases of rheumatic heart disease. While not an infectious disease itself, it is caused initially by bacterial infection with group A  $\beta$ -haemolytic streptococci leading to rheumatic fever. The immune reaction can lead to damage to the heart valves. There were many inpatients with heart failure secondary to rheumatic heart disease, which is rare to see in the UK unless it is an area with high rates of immigration from developing countries.**

**TB is common in The Gambia and is included in the differential diagnosis for many patients. *Mycobacterium africanum* represents up to a quarter of cases, whereas this strain is rarely seen in the UK. Pneumonia is another common presentation, and The Gambia is currently involved with an ongoing trial of a pneumococcal vaccine.**

**From the morbidity and mortality meetings, I noticed that hepatocellular carcinoma (HCC) was a very common cause of death. Patients would often present with very advanced disease. The cause of HCC is often not identified as patients often pass away before full investigations can be carried out, but the reason for the increased incidence of HCC in The Gambia compared to the UK is likely to be infection with hepatitis B or hepatitis C.**

**2. Describe how healthcare is provided in The Gambia and compare this to the provision of healthcare in the UK.**

**In The Gambia there are healthcare facilities that are provided by the government as well as private clinics and the services that are offered by the MRC. There are several NGOs that operate health services, for example Chain of Hope is a charity that works in partnership with the MRC to provide care for children with cardiac conditions such as congenital heart disease and rheumatic heart disease. Surgical treatment for these patients is unavailable in the country otherwise, whereas in the UK, congenital heart conditions would be treated early in life.**

At the MRC, 150 patients are seen daily in the outpatients clinic. These appointments are free, but patients have to pay for investigations and medications. Some investigations are not available at MRC, such as CT scans, and so patients have to go elsewhere for them. This contrasts sharply with the UK where most hospitals have the full range of investigations available and usually only have to refer elsewhere for specialised tertiary care.

3. Conduct an audit of HIV testing over a 6 month period at The MRC Unit The Gambia and compare to data on HIV testing in the UK.

I conducted the audit with the help of one of the doctors working at MRC and under the supervision of the Director of Clinical Services. Due to time constraints I was only able to cover a 5 month period. I presented the results at the weekly meeting at the end of my placement where there was some useful discussion around how to improve the testing rates. A summary of the project is outlined below:

### Methods

Adult inpatients (age  $\geq 15$ ) admitted over a 5 month period (November 2016 – March 2017) were identified from the admissions book. Patients with repeat admissions for planned inpatient treatment were excluded. Case notes were examined to record patient number, age, sex, diagnosis, HIV test offer, HIV test uptake, HIV test result, appropriate referral for HIV management and mortality. Patients were classified as to whether or not they had a clinical indicator disease (CID) for HIV infection. Data were inputted to Microsoft Access and analysed descriptively. Ethical approval was not required as it was a quality improvement project using retrospective anonymous data.

### Results

234 admissions were identified, and case notes were examined for 158/234 (67.5%). 76/158 (48.1%) were female and 82/158 (51.9%) were male. The age range was 15-98 years (median 45.5, IQR 31-59.75). 38/158 (24.1%) were offered an HIV test, 34/38 (89.5%) accepted the test and 13/34 (38.2%) tested positive. 43/158 (27.2%) had a CID, and of these 26/43 (60.5%) were offered an HIV test, 23/26 (88.5%) accepted the test and 11/23 (47.8%) tested positive. Overall, 9/11 (81.8%) of patients testing HIV positive (excluding those who died), were recorded as being appropriately referred on for management. The most common conditions in which an HIV positive diagnosis was made were LRTI, diarrhoea/weight loss and TB.

### Discussion

The testing rates fell short of the universal testing that is recommended in the British HIV Association guidelines based on HIV prevalence, but amongst those with a CID the rates were better. An audit of HIV testing in Europe amongst patients with a selected group of CIDs showed similar rates of HIV test offering (86% overall, 69% in Northern Europe) to that amongst the patients with a CID in this audit (60.5%). Ideally the offer rate in this group should be 100%, and this was encouraged in the discussion after the meeting.

4. Gain experience of clinical work in a novel environment and develop my research skills.

My experience in The Gambia has been very beneficial for me in terms of my medical training and in preparing me for starting work in the near future. Although the Clinical Services Department at the MRC is considered to be one of the best in the country, there are a number of significant limitations on what can be provided for patients compared to the healthcare that I am used to in the UK.

**Experiencing clinical work in such environments is an excellent way to reflect on what we consider to be the important elements of patient care, and to fully appreciate the services that can be provided for patients back in the UK. I also assisted in a number of procedures and events that I had not experienced in the UK before, including an arrest call and the insertion of a long line.**

**In terms of developing my research skills, the audit that I conducted provided some very useful experience in important aspects of research, such as data collection, managing a database, producing a report and presenting my results at a meeting. Audits are a compulsory part of a junior doctor's training and so this experience will be very beneficial for the future.**