## 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:**

**What is the distribution of common dental presentations in New Zealand compared to the UK.**

**During my time with the Mobile Surgical Service (MSS), the patients I saw were exceptional in a few ways. The patients were predominantly paediatric, ranging from 4 years old to 18. The MSS has a policy of operating on patients aged over 2 years old as below this age there is a higher risk of complications, which are difficult to manage on the bus. The patients were also in general of a lower socioeconomic class and of Maori or other ethnic minority origin. This patient group has some characteristics in common with the patients I have seen during my training in Whitechapel, where the majority of patients are of a lower socioeconomic class and of ethnic minority origin. However the predominant ethnic group in Whitechapel is Bangladeshi.**

**The patient group on the MSS is self-selecting in some ways, as the procedures are generally done under general anaesthetic, therefore the patients who will be referred for this service are usually more anxious and have lower quality dental hygeine. I travelled with the bus on the North Island of New Zealand which has a bigger Maori population than the South Island. Maori's are generally in a lower socioeconomic bracket, with a smaller cultural emphasis on health, which puts this population at greater risk of dental disease. This presents a huge problem for MSS in the form of patients not attending appointments. In general the patient list for a day of surgery would have 7-9 patients with anywhere between 2-3 patients not attending. This leads to hospital administrators overbooking lists, which can be a challenge when all the patients turn up.**

**The presentations of patients to the MSS were generally due to extensive caries, the procedures caried out varied between restorative work and extractions according to which dentist was working that day. Other presentations included hyperplasia of teeth leading to extraction, as well as some wisdom teeth extractions. Anaesthetic technique again varied between practitioners, however generally gas induction was used, along with nasopharyngeal airway. Maintenance of anaesthesia varied from gas alone to use of muscle relaxants and strong analgesics.**

**Objective 2:**

**How are private surgical services organised in New Zealand compared to the UK.**

**MSS is a private company, contracted by district health boards across New Zealand. This is an example of public outsourcing, however MSS has no competition for tenders as no other such service exists.**

**What I found most interesting during my time with MSS was the logistics involved with having a moving theatre that spends one day at each location, with mostly different staff each day. MSS has one Clinical Nurse Leader who is responsible for a week of surgery and one Anaesthetic technician who again works for one week at a time. All of the nursing staff are usually from the local hospital where the theatre is attached for the day. The Surgeon and Anaesthetist for the day are from the local**

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**area but may not work at the hospital where the theatre is based for the day. The service also employs a truck driver who has to maintain the truck and all of the medical equipment located within.**

**All of the procedures on the bus are elective and the patients are pre assessed within the hospital building where the bus is attached for the day. The patients then enter the bus, have their surgery and leave the bus to recover from the anaesthetic in the hospital. If any complications are encountered that cannot be dealt with on the bus, the patient is admitted to the hospital.**

**In general the health system in NZ is split into private and public services. Most practitioners work in both sectors, however the MSS only visits public hospitals which are funded through district health boards.**

**In the UK, private surgical services exist in private hospitals as well as in Independent Sector Treatment Centres. I this case operations are outsourced to private companies, who operate in public hospitals. This is probably the system that is most similar to MSS with both systems doing operations which have a low risk of complications.**

**Objective 3: Global/Public Health related objective**

**Explore why the Mobile Surgical Unit is required in a developed country such as New Zealand compared to the UK.**

**The MSS exists due to the geography of NZ. NZ is a huge landmass spread over 2 islands, with a population of 4 million (2 million of which live in Auckland). The large amounts of rural areas with low population numbers leads to many challenges for health infrastructure. Many operating theatres were closed down in rural areas to reduce costs. This means that for many people, their nearest operating theatre may be 2 hours drive away. Therefore the MSS tries to bridge this gap, and offers elective surgery in rural areas close to where patients live. MSS also operates in more populous areas, attached to hospitals with working operating theatres. This is due to long waiting times and targets for surgical departments.**

**MSS has an operating theatre truck as well as a lithotripsy truck. The latter exists due to the extortionate cost of medical equipment such as that which is used to perform lithotripsy. This equipment can then be shared amongst the whole population of the country instead of just being available in one city.**

**On speaking to some of the professionals on board the bus, they remarked that they thought it would be more expensive for the tax payer for patients to have their surgery on the bus than to travel to another hospital. This was highlighted for me when one of the surgeons was unwell so another surgeon was helicoptered in from another hospital. On the other hand, many of the patients who have surgery on the bus do not engage with healthcare services in their local area, therefore asking them to travel an hour each way for surgery means that they are even less likely to attend their appointment. These patients are often the ones most in need of intervention so the MSS is a great asset in that regard.**

**Objective 4: Personal/professional development objective**

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**Develop my ability to (teach) through case scenarios (via a telepresence network)**

**Unfortunately I did not have the opportunity to do any teaching via telepresence, however as the turnover of staff is so high on MSS and often staff are brought in last minute having not been on the bus before, I was able to help with training in this respect. My role was similar to a Healthcare Assistant, and as such I was able to help the nursing staff find equipment, clean the theatre and prepare the theatre for each new patient.**

**In terms of particular cases that were interesting, there were a few patients aged around 4 who were in the care of their grandparents as opposed to that of their parents. I was told this was because the children had been subject to neglect or abuse. New Zealand has a growing problem with methamphetamine addiction and alcoholism which leads to family violence. I was also told that one of the patients had a problem with ADHD as their mother had taken methamphetamine while she had been pregnant. I found the social aspects leading to changing family dynamics and deprivation in some areas very interesting, particularly as much of the world views New Zealand as a prosperous utopia of beautiful landscapes.**

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