

## **ELECTIVE (SSC5c) REPORT (1200 words)**

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

### **An Elective in Trauma Surgery at University Malaya Medical Centre**

I undertook an elective in Trauma Surgery at University Malaya Medical Centre (UMMC). UMMC is a large teaching hospital, situated in Kuala Lumpur, Malaysia. It opened its first medical faculty in 1963 and is named the oldest medical institution in Malaysia. I chose to do my elective here as I wanted to get an idea of the healthcare system in my home country as well as spending some time with family and friends as I have been abroad for quite some time.

The Accident and Emergency department follows the triage system also known as the traffic light system where patients are triaged into different zones based on criticality. The Red Zone, which is equivalent to the resuscitation unit in the United Kingdom is reserved for life-threatening presentation. Yellow Zone caters for non-life threatening cases whilst the Green Zone is attended by walk-in patients who do not require urgent treatment. This is quite similar to the UK where the terms 'resus, majors, minors, in-hospital GP' are used.

I found that I had spent a lot of time in the resuscitation hall, ie. the red zone. I observed a wide variety of acute conditions, ranging from acute coronary syndromes to motor vehicle accident injuries. In my previous Year 5 placement in Accident & Emergency at Colchester Hospital in the UK, I was not exposed to many road traffic accident (RTA) trauma related cases. This was not the case at UMMC, where RTA related injuries are a relatively common presentation at A&E.

The main causes of trauma in Kuala Lumpur are road traffic accidents, falls, and assaults. Being the busy capital city of Malaysia, Kuala Lumpur witnesses 9 million people during the day, and 2 million by night, which means that about 7 million people are commuting in and out of Kuala Lumpur on a daily basis. Public transport is not as extensive as the UK, and this is a contributing factor to the high number of road traffic users. Road traffic accident injuries are the third most common cause of admission and fifth cause of death in Malaysia. Cars are most commonly involved, followed by motorcycles, lorries, and vans.

The Trauma Centre in UMMC was designed so that the A&E department, helipad, imaging department and operating theatre are all located next to each other, ensuring effective trauma management.

A simple principle of trauma surgery is 'quick in, quick out'. The trauma surgeon performs only life or limb-saving procedures in major trauma, where emphasis is focused on preventing the 'lethal triad'; metabolic acidosis, hypothermia and coagulopathy, rather than correction of anatomy. Less critical procedures are left at a later time during the window of opportunity at day 6 when the patient is more stable. An interesting surgery I observed was a laparotomy for a repair of a diaphragmatic rupture. The set up of the operating theatre is very much similar to the UK. Teaching was conducted during the surgery and occasionally the surgeon would quiz the students observing.

I also had the opportunity to join pre-hospital teaching alongside the paramedics. I learnt burns management as well as basic trauma skills such as airway management, cervical collar application, moving techniques, and pelvic binder application.

One of the highlights of the elective was my participation in the Silent Mentor programme. It is a programme whereby the public may bequeath their bodies for medical education after their death. It is a great platform for medical students and doctors to practice surgical skills as the Silent Mentors are in better condition than other cadavers, which are usually unclaimed bodies. Amongst the things I learnt were basic suturing skills, central venous line, endotracheal tube and chest drain insertions. What I liked most about the programme was that it was more than just learning surgical skills, it also taught me to have a caring and respectful attitude.

Occasionally I would join the medical student teaching. One that I enjoyed was the teaching on Advanced Trauma Life Support (ATLS), which I found very useful. It provided a framework for health professionals to manage trauma patients in a systematic manner following the ABCDE algorithm. It was an interactive classroom session where the lecturer quizzed each student on each component of the algorithm.

A memorable experience in A& E was when I had helped in resuscitating a patient that came in with cardiac arrest. Initially, I stood at the back of the room not wanting to get in the way of the doctors who were busy attending to the patient. I observed several healthcare professionals perform the CPR; each at different rate every time, some were very fast ie. what seemed like 200 compressions per minute. As we got into the 24th minute, the doctors had asked me to have a go at performing the CPR. It was my first time performing CPR on a patient and I was very worried and nervous at the time. Thankfully, the house officer was there guiding me and helped me remain calm. The outcome was unfortunately not great and the patient was declared dead at the 30th minute. This case was a big learning point for me. I realized that in the heat of the moment, sometimes one can forget to perform effective chest compressions and have a tendency to increase the rate of compressions from the recommended 100 per minute to 200 per minute.

When not much was happening in A&E, the house officers would offer teaching. One of the teaching I received was about Dengue fever, which is one of the most prevalent tropical disease in Malaysia, being the third common cause of death in Malaysia. I learnt the importance of early recognition and appropriate supportive treatment.

One of the things I liked about this elective was that I had a lot of time in A&E. This allowed me to shadow the house officers and occasionally perform basic procedures such as venopuncture, ABG, and catheterisation. I realized that the house officers here are very well trained and are exposed to a lot more procedures as compared to what an equivalent foundation year doctor would be require to do in the UK. The house officers are very competent ie. they are able to insert central venous lines, endotracheal tubes with very little supervision. If there is one thing I wish to take away from this is to be eager and to always learn new skills as competency comes with a lot of practice.

Outside the hospital, I managed to travel during the weekends. There is so much to see and explore. I truly enjoyed the forests, heritage sites, the beautiful beaches, and the amazing food and culture Malaysia has to offer. The weekend trips have made me realise how beautiful my country is and that I don't necessarily have to go very far to enjoy a holiday.

**All in all, I have definitely gained a great deal of learning experience during my time here and would definitely recommend UMMC as a good choice of elective. I cannot wait to start working as a foundation year doctor in August and apply what I have learnt in Trauma surgery and A&E.**