

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

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

### **1. Describe the common presentations requiring critical care and discuss this in the context of global health**

The patient cases I came across during my placement in "Unidades de Cuidados Intensivos" (ICU) in Cuba share great similarity to patients requiring intensive care in the UK. One of the differences I noticed is the lack of a high dependency unit (HDU), or step-down place for patients who no longer require an ICU bed, but still need stricter monitoring than ward patients. In the hospital where I was based, patients who were assessed by the critical care team and needed an ICU bed were first taken to "UCI emergentes". Here patients were stabilised before being taken to the ICU unit. However, lack of beds is also a problem in Cuba and sometimes patients spent several days in this temporary UCI-E room.

Common conditions seen in Cuba that required escalation of care included sepsis from varying severities and most of them post-operative sepsis due to wound infection; strokes both haemorrhagic and ischaemic; pulmonary embolisms; complications of pregnancy; and cardiac and respiratory compromise.

These are medical conditions that affect patients globally. Diets high in fats and sugar together with little exercise has seen an increase in heart and cerebrovascular disease. Although sterile fields are used in operating theatres, major operations can be complicated by severe infections. Life expectancy in Cuba is increasing and can match expectancy in countries with a more developed economy. This has led to an ageing population, with an increase in community and hospital acquired infections, frailer patients undergoing surgery and age-related risk of cardiovascular disease.

### **2. Describe the pattern of health provision in Cuba and how this compares to European countries, in particular the United Kingdom**

Cuba has a national public health system. Together with free education, a health service free of charge for Cubans was one of the main pillars set up by the revolution in 1959. Although there are some differences, it is a similar system to the National Health Service (NHS).

In the community there are "policlinicos", where newly qualified and general medicine doctors are the first point of call for seeking routine medical attention. These are somewhat similar to the GP surgeries in the UK. One of the differences, is that specialised doctors like surgeons, dermatologists, endocrinologists, etc., visit these facilities to see patients referred by the general doctors.

In emergencies, patients are encouraged to visit the equivalent of A&E in the UK called "urgencias", located at big hospitals. Like in the UK, different hospitals offer different services. There is a hospital with a cardiac centre, hospitals for pregnant women with paediatrics services on site and a regional neurosurgery centre. Very specialised cases are transferred to the capital city, La Habana.

One of the main differences with the NHS, is that patients have to pay for their individual medicines in the community. Nothing can be obtained from the state-run pharmacies without a prescription, even

simple analgesics or creams which are widely available over the counter in the UK. The drugs are heavily subsidised but still can be an important expenditure for patients with polypharmacy.

The concept of private healthcare does not exist in Cuba. The fact that there are so many doctors means waiting lists are generally short. Knowing a doctor also makes the process of obtaining medicines much easier, as doctors can write a prescription without the patient having to visit a “policlinico” first. Over 20,000 new doctors qualify every year, compared to approximately 7,000 in the UK. Cuba exports doctors to countries like Venezuela, Bolivia and Brazil in exchange for low-priced gas and petrol for example.

As hospitals are state-run and the economic resources in Cuba are scarcer than many European countries, the hospitals are generally old and look and feel out-dated. This lack of resources is felt within the hospitals, for example with insufficient patient monitoring systems in critical care settings, many re-usable pieces of equipment throughout the hospital, and inability to perform daily radiographs due to lack of films.

**3. Describe the extent of first aid education in the community and the effect this might have on cardiac arrest survival rates, compared to the UK or other European countries**

Due to the high number of doctors and government-run campaigns on TV and radio, medical knowledge in the community is very good, particularly regarding hygiene, nutrition impact and non-pharmacological alternatives to common problems like hypertension. However, according to hospital doctors, not many people would know what to do in case of a cardiac arrest. It is established in the community that any driver must drive to hospital someone who needs medical help urgently, such as someone who is unconscious. The pre-hospital part of “the chain of survival” mentioned by the Resus Council is poorly developed in Cuba, almost non-existent.

Overall survival rates are probably affected by the low number of defibrillators available. There are none found in the community setting, and in the hospital, there were only two, one in ICU and one in operating theatres complex.

**4. Be able to carry out pre-operative assessments by myself and identify relevant factors which may change the anaesthesia strategy. Additionally, I would like to enhance my practical skills commonly used in the critical care setting**

I spent three weeks with the anaesthetics team. After one week of observation, I was able to carry out a pre-operative airway assessment to estimate risk of difficult airway and intubation. At this hospital, this airway assessment took place in the pre-operative room, not long before the operation itself.

Difficult intubation due to altered anatomy for example are problematic here in Santiago de Cuba. This is because there is only once different type of laryngoscope to use in difficult intubation scenarios. There are no fiberoptic or video laryngoscopes due to limited economic resources. This means certain patients might not be able to have their elective operation and a new surgical and anaesthetic approach needs careful planning.

Under close supervision by a senior anaesthetist, I was taught how to intubate. Towards the end of the placement, I felt comfortable holding and introducing laryngoscopes; as well as inserting endotracheal tubes. Tube position was carefully checked by my anaesthetist tutor and I learnt how to look out for oesophageal intubation.

During my anaesthetic placement in the UK, I was given the opportunity to assist in the delivery of spinal anaesthetics. In Cuba, I was able to put this prior knowledge into practice and got involved with several intrathecal procedures. This opportunity allowed me to study the detailed anatomy of this anaesthetic procedure and I am looking forward to making use of this experience as an FY doctor. Additionally, I observed multiple central venous catheters being inserted. In Cuba, this is done without ultrasound, relying on anatomy knowledge. This acquired familiarity with the procedure will be of great value during my FY2 rotation in anaesthetics/ICU.

To conclude, spending six weeks in Cuba was an outstanding experience, truly educational and a fantastic insight into how critical care and anaesthesia are delivered in a country with different resources to the UK. I learnt lots, and I am looking forward to putting the skills learnt in Cuba to good use during the foundation years and beyond.