ELECTIVE (SSC5c) REPORT (1200 words)

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

1. The Homerton is a general university hospital, as a result patients present to the ITU with a whole range of diagnoses and individual needs, no two patients are ever the same. There were of course common illnesses amongst a few of them, but a lot of the time their clinical course and management plans were very different owing to an individual's response to the illness and its treatment.

Reasons for admission I encountered more than once included severe pneumonias; post MI complications, such as hypoxic brain injury or heart failure; acutely septic patients; acute asthma exacerbations; HIV related illness; and post-operative patients, including those post laparotomy. The Homerton also has a large and well regarded neonatal ICU.

The Homerton, being located in Hackney, has a large local Black African community, as a result of this illnesses such as sickle cell disease and it's complications are not uncommon presentations in the ITU. Hackney is also a place of considerable poverty, with linked social issues such as alcoholism and intravenous drug use being of significantly higher rates than other places in London, and indeed the country. A few patients I encountered were admitted due to complex decompensation of alcoholic liver disease, with profound clinical signs and encephalopathy. I also encountered patients with a current or previous history of IV drug use who were diagnosed with hepatitis B/C and HIV, admitted with complications relating to their illness. The medical team had to be especially aware of issues such as immune reconstitution inflammatory syndrome (IRIS), which for one patient who had only recently been diagnosed with HIV meant he was unable to start anti-retrovirals in fear his immune system would severely over-drive in the presence of his current infective illnesses. Although nobody wishes to stigmatise illnesses such as HIV, staff had to be careful when discussing the above mentioned patients with their families, as they were often not aware of the retroviral status of the patient.

Whilst the Homerton is a general university hospital, Other ITUs across London and indeed the country may be associated with specialist centres. The Royal London, for instance, is a major trauma centre and has a large renal unit, and as a result a larger proportion of those patients are received in the ITU of the Royal London. Charing Cross Hospital is associated with major head and neck and ENT surgery. Outside of London the Queen Elizabeth Hospital Birmingham had a strong working relationship with the military and Royal Centre for Defence Medicine, as a result the ITU there has dedicated resources for military personnel returning from abroad with multiple severe trauma. There are many such examples of specialist centres whose ITU may be better specialised to deal with the particular patient group across the country.

2. ICU services are seen to vary dramatically across the country and indeed across the world. The differences include in admission criteria, bed availability, care available and mortality rates.

Across Europe there is an apparent North/South divide with regards to the style of ITU care provided. In the north, broadly speaking, there are greater numbers of hospital beds and generally patients are less sick on admission. In the south there are fewer beds available, however patients are generally more sick and have greater needs to be admitted. The UK interestingly follows a more southern-Europe style. Patients in southern Europe and UK ITUs generally have longer admissions, requiring greater nursing input and more often were mechanically ventilated.

The US has approximately seven times the number of ITU beds per capita compared to the UK, studies have shown that in the UK patients admitted to the ITU unit have often been admitted to a ward of the general hospital prior to their ITU admission, whilst in America patients are frequently taken directly from the emergency department. Similarly to the observations in Europe, it has also been found that in the UK patients are often 'sicker' and more frequently mechanically ventilated upon their ITU admission. Mortality rates in UK ITUs is greater than those in America, however this is a reflection of that fact patients are already significantly more unwell upon admission. When subgroups of similarly unwell patients are analysed, mortality rates are similar. ITU admissions in America are frequently shorter in comparison, owing to the fact patients are often quickly transferred to specialist units.

3. I love the controlled atmosphere of the ITU. A lot of this is the result of the intensive nursing available, with most patients receiving 1-1 nursing care 24/7. On general wards a single nurse may look after as many as 8 patients. The constant nursing from highly trained specialist nurses in entirely necessary in the ITU setting however due to the often immense needs and delicate state of the patients. The ITU also differs from general wards in what it can offer patients treatment wise. Patients who require inotropic support, mechanical ventilated or haemodialysis are receiving onto the unit as these treatments require careful specialist administration and monitoring.

Patients are allocated a code for the level of their needs, ITU patients require "level 3 care" which includes the care described above. "Level 2" denotes the need to care in a High Dependency Unit, such patients may need a high levels of nursing attention, support for a single failing organ or post complex surgery, or may simply be 'stepping down' from level 3 on ITU. "Level 1" is applicable for patients who are at risk of deteriorating, who need care on an acute ward, where input from critical care is available if needed. Finally, "Level 0" involves the simple cases where patients can be safely managed on a normal ward.

4. The best part of placement was the fact that I was expected, and strongly encouraged, to get fully 'stuck in'. For instance I was designated a patient each day to examine and present on ward round; as well as assisting in procedures such as arterial line placement, ascitic tapping and tracheostomy fitting. As a result of this I now feel much more confident in handling patients who may be critically unwell, fully sedated and ventilated or who are unable to communicate with me. With regards to the assisting in procedures I feel I have massively benefitted from this and have gained a considerably greater understanding of these procedures, including when they may be needed, complications that may arise, as well as simply how to perform them. I have also become a lot more familiar the use and settings of mechanical ventilators. My time in Anaesthetics was also hugely beneficial to my confidence at managing airways, through being able to practise the art of the single-handed chin lift and holding a face mask, whilst bagging with the other hand; and also in inserting LMAs and drawing up IV drugs. All of these were skills I'd practised before, but I'd lacked confidence in my skills which I now feel somewhat clarified and strengthened. Another aspect of the placement I hoped to benefit from was being interactive and communicative with patients and their families. I have gained a greater appreciation for interacting with the patients whilst you are with them, especially when you are examining them or performing a procedure. Even when you doubt their conscious level enables them to understand, it is still proper to involve them just in case they do have a degree of awareness. I have witnessed several examples of good interaction with the families of patients from different members of the medical team. This has included simple, but entirely necessary, explanations of what's going on from the nursing staff; to perhaps more in depth and difficult discussions regarding the poor prognosis of certain patients from the doctors.