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

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

Liver disease is one of the important causes of mortality in the U.K. In fact, mortality from liver conditions has increased over the last ten years from 7,841 deaths in 2001 to 10,948 in 2012. Most liver disease in the U.K. is due to alcoholic liver disease, non-alcoholic liver disease (related to obesity and diabetes) and viral hepatitis. Having been interested in hepatology for over three years now, I decided to do a short elective at King's College Hospital Liver ITU which supports one of Europe's largest liver transplantation centres. Besides post-operative liver transplant patients, I saw a wide range of interesting presentations, chief amongst them a man whose portal vein was transected after a knife stabbing and another man with a hepatic artery aneurysm that was so large it caused obstructive jaundice. In that sense it is hard to make any sweeping statements about patterns of disease in the U.K. population after only a short stay at the unit, since conditions seen here might be uncommon or even rare in the wider population.

Given that King's College Hospital is located in the same city, let alone country, as the Royal London Hospital and all other hospitals affiliated with Barts and The London School of Medicine, it would be reasonable to assume the pattern of health provision is no different south of the River Thames. The U.K.'s model of health care is a single payer system where most hospitals are owned by the government, supported by taxation and is free at the point of care. That said, there is some scope for private care in the U.K., especially in centres of excellence like the King's Liver transplantation team. International patients may be transplanted privately at KCH; however, the only transplanted livers used are of generally poor quality (meaning they are not suitable for NHS patients). Thus the King's Liver unit is a fairly nice microcosm of healthcare in the NHS: high quality, universal care for all eligible patients and a small amount of private work done adjacently.

The King's Liver ITU is a highly organized unit consisting of 15 ITU beds and 4 beds in an attached HDU. All the consultants at the unit are trained intensivists and some have trained as hepatologists as well. The registrars while I was present on the unit were mostly training in intensive care, although one was training as a hepatologist. Interestingly, there was only one junior member of staff, an SHO who rotated into the ITU for only a short time. The unit comprises almost exclusively of consultants and senior registrars with a great deal of experience. Like any ITU, there are specialist nurses manning every patient bed and almost every patient I saw had a central line and arterial line in situ. Patients are frequently reviewed by the integrated liver team (HPB surgery and hepatologists) and there are extensive meetings between the intensivists and other liver specialists about patient management. In addition, the Institute for Liver Studies (a research unit) has its base right beside the Liver ITU and Todd Ward (the hepatology ward). The unit itself is not particularly modern in comparison to the new Royal London Hospital ITU and space is at a premium; but if anything that ties into what has been stated above: the King's Liver service is excellent because of the ability of the staff and the integration of care and not necessarily because of the physical unit (indeed, a registrar pointed out to me this is also the case for the Papworth Hospital in Cambridge, a world class heart and lung hospital that he likened to a shed).

My original intention with this short elective was to gain more insight into the acute care of liver

disease. However, it was soon apparent that most of the learning on the unit would be about intensive care as this was the specialty of the majority of the registrars. With that in mind, I set about trying to learn as much about intensive care medicine as I could and I am very glad I did, as there were large gaps in my knowledge that I was hitherto unaware of. Prior to this placement I was aware of non-invasive (CPAP and BIPAP) and invasive ventilation and little else more in depth. I was taught about the various modes of invasive ventilation such as pressure support (with a set continuous pressure and an additional, intermittent peak pressure to prevent alveolar collapse). I also witnessed a few tracheostomies to assist weaning of patients who were to be extubated and I later read up more on the procedure. Thermodilution, a procedure that uses the dilution of a set volume of colder saline into the blood to measure the change in the temperature of the circulation which in turn renders a calculation of the cardiac output. I received guite a bit of teaching on central lines and the technique of placing them in either the internal jugular vein or subclavian vein using the Seldinger technique. Some of my previously firmly held beliefs about using central lines as a way to assess volume status were laughed away by the registrars who informed me that this was a very dated concept. I was very pleased with my time at the Liver ITU, and going forward it has left me wanting to work in an intensive care unit at some point in my training, most preferably in a liver transplant centre.

# **ELECTIVE (SSC5c) REFLECTION**

This information will be used to monitor placements for safety and to provide useful information that we can pass on to students for the future. (Please complete the sections below).

### Was it what you expected?

Not entirely, I expected to learn more about liver medicine than I did, but conversely I learnt quite a bit about intensive care medicine which was useful all the same.

## Clinical experience?

Limited due to the specialised nature of the unit. While relatively hands off, I was asked a lot of questions and given a lot of informal teaching by the registrars.

### What did you learn about the people and the country?

The elective took place in the UK so there was little in the way of that I could genuinely say I learned about the country.

### What did you learn about the health care professionals you worked with?

All very experienced clinicians who had taken a long route into doing something they really enjoyed, even if it meant adding extra years on to their paths to getting a CCT. That has inspired me to no longer think about taking shortcuts to becoming a consultant, since the journey is as important as the destination.

What did you learn about the health care system in that country?

This elective took place in an NHS hospital in London, so there was little new to be learned about the