ELECTIVE (SSC5c) REPORT (1200 words)

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

1. **Describe the pattern of disease/illness of interest in the population with which you will be working and discuss this in the context of global health: What are the common hepatic conditions in the UK? How do they differ to patterns of hepatic disease in developing countries?**

   Prior to my elective I knew that liver disease is common within the UK, but during my placement I was surprised to learn that liver disease is the fifth most common cause of death in England and Wales, after heart disease, respiratory disease, stroke and cancer.[1] It is also the only major cause of death that is increasing year after year.[1] Common hepatic diseases in the UK include alcohol related liver disease, viral hepatitis (B and C) and non-alcoholic liver disease (NAFLD).

   Alcohol consumption in developed countries such as the UK tends to be high and thus alcohol related liver disease is more common when compared that of developing nations. In 2007 there were 4,580 deaths attributable to alcohol related liver disease in England and Wales.[2] Moreover, alcohol misuse cost the NHS an estimated £2.7 billion per year.[3]

   NAFLD is thought to be the most common liver problem in the western world. Within Europe alone it is estimated that 20-30% of the population are affected, a great many undiagnosed. [4] There is a link between obesity and NAFLD and thus with obesity at near-epidemic levels in the UK then NAFLD will likely rise.[5] This is particularly concerning since the Health Survey for England (HSE) 2007 data shows 60.8% of adults (aged 16 or over) in England were either overweight or obese, and 24% of which were obese.[5]

   Globally, viral hepatitis is the most common cause of liver disease. Hepatitis C is the most common viral hepatitis in the UK whilst in developing nations and globally hepatitis B is most common. According to the Health Protection Agency, approximately 191,000 people aged 15-59 have hepatitis C (2003) of which 142,000 have chronic disease.[6] Chronic infection with hepatitis may lead to cirrhosis and confers a risk of developing hepatocellular carcinoma. Around one in five people with hepatitis C will clear the virus and the remainder will develop chronic infection, of these 5-15% will develop cirrhosis over the next 20 years.[7]

   Hepatitis B virus (HBV) is the most common infectious disease in the world and is the most common viral hepatitis in developing nations, the WHO has estimated that there are more than 2 billion HBV infected people of which 240 million chronic carriers.[8] And the most common route of transmission of HBV is vertical transmission.[9] Within the UK transmission of HBV from an infected mother to her baby during childbirth may be prevented as expectant mothers are screened for Hepatitis B. Those who are infected with the virus may be offered treatment to reduce the viral load thereby reducing the chance of transmitting the virus to the baby. Or the baby may receive a vaccination at birth along with immunoglobulins.[10] In contrast, many developing nations do not have the facilities nor the medication in order to reduce transmission of HBV.

   In summary, liver disease is common worldwide within both developed and developing nations though the pattern of liver disease differs between the two.

2. **Describe the pattern of health provision in relation to the country which you will be working and contrast this with other countries, or with the UK: How is hepatologic medicine delivered in the UK? How does this differ to the provision of health services in developing countries?**

Health provision in the UK is primarily delivered by way of a universal healthcare system, the 'NHS', with some health services available privately. The NHS as a service is funded primarily by general taxation, it is free at the point of delivery and patients may access the service a number of ways. Patients who present with liver dysfunction/disease might be referred from primary care (GPs), other specialties or may present acutely at the emergency department.

Services within hepatology are delivered in hospitals i.e. secondary or tertiary care and on an outpatient basis. Care is delivered by a multidisciplinary team including the consultant hepatologist and his team, the GP, and other specialists such as district nurses, physiotherapists, dieticians to name but a few.

The National Institute for Health and Care Excellence (NICE) is a non-departmental body day that was originally set-up by the UK government in 1999. It has several responsibilities to assess new drugs and treatments as and when they become available, to provide evidence-based guidelines on how to manage/treat particular conditions and how public health and social care services can be delivered.[11] NICE also provides information services for those involved in the commissioning, management or provision of health and social care.[11] NICE-approved drugs are available on the NHS and during my elective NICE were in the process of approving a new treatment for Hepatitis C. Although the drug was not available on the NHS patient(s) are able to access the treatment privately.

Health provision within developing countries is variable with some countries such as the Philippines providing a mixture of private and public services (the bulk of which is private and on a fee-for-service basis) and Sierra Leone where almost all healthcare is chargeable at the point of delivery and is delivered through a combination of government, private and non-governmental organizations (NGOs).[12][13] Some developing nations have universal healthcare systems, like Thailand which implemented its system in 2002.[14] Whilst healthcare provision in developing nations is different from country to country often the problem in many developing nations is that people simply do not have access to healthcare.

In summary, healthcare within the UK is provided primarily by the NHS with guidance from bodies such as NICE whilst healthcare provision within developing countries is varied.

3. **Health related objective: To further my understanding of liver-related disease. To gain insight into the physical and psychosocial burden of such disorders.**

During my elective I was able to join ward rounds, attend clinics and MDT meetings thereby allowing me to fully immerse myself within hepatology and thus garner a greater understanding of liver disease and its management.

The physical impact of liver disease can be enormous. The liver is an organ with many functions thus when it is diseased or fails there are knock-on effects on multiple body systems e.g. cardiac, renal, haematological, neurological etc. I saw several patients with hepatic encephalopathy and it is a distressing condition not only for the patient but also their loved ones and those involved in treating

the patient. This also highlights the social impact of liver disease as a patient with chronic hepatic encephalopathy will not be able to function independently.

Unfortunately during my attachment there were some deaths. The patients in question were clearly very unwell and a failing liver certainly takes its toll on the body. Sad though it may be it impressed upon me the realities of working within the medical setting and that one has to balance empathy and emotional detachment in order to work effectively and also for the sake of one's emotional wellbeing.

The psychosocial burden of disease is an important area of medicine and my experience within hepatology has shown me just how devastating a disease can be to a person's physical, mental and social wellbeing.

4. Personal/professional development goals. To gain experience within hepatology and to build upon my clinical and practical skills.

I very much enjoyed my elective within hepatology at the Royal London Hospital. I received teaching when I attended clinics and on ward rounds which certainly enhanced my understanding of hepatology. I often discussed cases with the junior doctors in order to develop my clinical skills. Shadowing the junior members of the team was very useful in both enhancing my clinical skills as they would often ask me questions about how I might manage a patient in a given scenario. I also tried to help the team as much as possible with the practical jobs and so during my placement there was ample opportunity for me to build upon my practical skills. I was able to carry out venepuncture, cannulation, nasogastric tube insertion and catheterisation. Additionally I assisted with and performed paracenteses.

Altogether I feel that I gained experience within hepatology and during my placement I was able to further both my clinical and practical skills.

Word count excluding headings and references: 1,243

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