## ELECTIVE (SSC5c) REPORT (1200 words)

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

**Objective 1: What are the prevalent neurosurgical conditions in Australia? Do these differ to those of the UK?**

There is not a great deal of difference in the prevalence of neurosurgical conditions in Australia as compared to the UK. Many of the procedures happening at RMH were similar to those I have seen in the UK- including discectomies and laminectomies for degenerative spinal disease, evacuation of intracranial haemorrhages, decompressive craniectomies and excision of brain tumours. As both Melbourne in Australia and London in the UK are similarly developed with similar health care systems, it is not surprising that degenerative disease is affecting ageing populations in the same ways. In the same way, traumatic presentations are similar as the analogous populations are engaging in the same risk behaviours (for example road traffic accidents are common and gun crime injuries are infrequent). I saw far fewer trauma operations than at home, where a significant proportion of the caseload is trauma. However, I do not think that this is representative of a difference in disease prevalence but rather due to the fact that the RLH is a large trauma centre and, although the RMH is a trauma centre also, their helipad was not in operation whilst I was there so many traumas were diverted to other centres. From what I saw at the RMH the type of work being done in the UK is very similar to that in Australia.

**Objective 2: What is the management of common neurosurgical conditions in Australia and does the management differ to that of the UK? In what ways do the operative approaches differ to those taken in the UK and the rest of the world?**

Similarly to in the UK, much spinal work is done by neurosurgeons in Australia, rather than by orthopaedic surgeons. Neurosurgeons operate on both the peripheral and central nervous systems and the sub-specialities are the same (neuro-oncology/ paediatric/ spinal/ skull base etc.) However, it seemed at the RMH that the sub specialisation was less strict than in the UK, with consultants working in all specialities and there being a less obvious focus for trainees to decide which area they wanted to specialise in early on in their training. This contrasted to what I have seen in the UK, where consultants specialise in certain areas and carry out fewer operations in other sub-specialities. Despite the seemingly very similar patient management, a previous paper (Gabbe et. al; 2011) has shown that the odds of dying following hospitalisation for a severe, isolated Traumatic Brain Injury (TBI) were higher in England and Wales when compared to Victoria, Australia, particularly for younger adults. They explained these results as being likely due to a higher proportion of TBI patients being managed in a specialist neurosurgical centre in Australia compared to in the UK, where only 67% of cases were managed in a specialist centre and only 53% of those presenting at a non-neurosurgical centre being transferred. Operative approaches are extremely similar, with the stereotactic equipment, operating microscopes and other facilities being very similar to what is used at home. However, I did notice that the equipment seemed to be more up to date and less prone to problems at home. I imagine this is because there is less financial strain on the Australian system. In talking to the staff there seemed to be less worry about budgets at RMH compared to what I have seen in the UK.

**Objective 3: To gain an understanding of how neurosurgical conditions are managed in Australia- by experiencing the pathway of patients through the Australian system. Are there differences in the pathway from presentation to treatment and post-surgical rehabilitation to that of the UK and elsewhere in the world?**

At the RMH the neurosurgical ward is organised very well. Most patients are located on the same floor, with HDU following on from the main ward and neurology patients on the other side of the level. This made the transition feel much more smooth with better continuity between the ward and intensive post operative care. It also enables the neurosurgical and nursing teams to work better together and allows different members of the MDT to communicate more effectively. In talking to patients I heard many non-private patients complain about the length of time they had to wait for their operations. This is not something patients complain about at home very much. However, in talking to them further the waits were not actually longer than at home, rather I think they are perceived as being longer because they are comparing it to the private system which is quicker. In the current political climate in England there is a huge fear of privatisation, with the particular concern that only people who can afford it will be able to receive the best care. However, I think Australia is a good example of how some privatisation does not need to affect the standard of care for those on the public system. Rehabilitation appears to be better in Australia, with many patients speaking extremely highly of their experience. In the UK, patients are often very negative about their rehab programmes. Again I think this may be down to the financial problems in the UK system. The pathway from presentation to treatment and post-treatment rehab is very smiler between the two countries. The primary difference that I noticed was that in the UK there is much more focus on the social circumstances of patients an whether their homes are fit to be discharged to with regards to facilities and care packages. This was much less of a topic in the MDTs at the RMH, largely because the patient population was much less deprived than that in East London.

**Objective 4: Personal/professional development goals.**

I am hoping to apply to neurosurgical speciality training in FY2 and spending an elective placement at the Department of Neurosurgery in the Royal Melbourne has definitely strengthened my experience and understanding of the speciality. I had previously considered coming to Australia for speciality training and had heard that it was a less intense training programme than in the UK. This is definitely not the case and it was very useful to have this myth debunked. The trainees work long hours and perhaps longer than in the UK. This has positive and negatives - in the UK there is the feeling that it is harder for trainees to be adequately experienced under the european working directive and Australia not having this may be beneficial in acquiring the necessary competencies and experience. In the UK I had spent much of my time in Neurosurgical theatres rather than on the wards and so at the RMH I took the opportunity to clerk lots of patients and fine-tune my examination skills. This was very useful and I was able to become familiar with signs and presentations which I previously had little or no experience of. Seeing patients both pre and post operatively gave me a better understanding of the pathway of patients through hospital and the management of neurosurgical patients both requiring more intensive care and on the ward. I feel more prepared for neurosurgical speciality interviews and more confident in my interpretation of scans and understanding of common conditions. I will be working in neurosurgery for 8 months in FY2 and being at the RMH has given me a solid foundation of experience and understanding which I think will benefit me greatly in the role.

References:

Gabbe BJ, Lyons RA, Lecky FE, Bouamra O, Woodford M, Coats TJ, et al. (2011) Comparison of Mortality Following Hospitalisation for Isolated Head Injury in England and Wales, and Victoria, Australia. PLoS ONE 6(5): e20545. doi:10.1371/journal.pone.0020545