Elective Report – Urology (Dr L Chan), Concord Repatriation Hospital, Sydney.

1. Describe the variation in prevalence of Prostate Cancer in Sydney, Australia in comparison with the UK.
2. Explore the approach to prostate cancer and its management in Sydney, Australia with that of the UK.
3. Compare the healthcare systems as a whole in the two countries.
4. Illustrate the ability to adapt to working in a different country and improve examination and surgical skills where appropriate.

Describe the variation in prevalence of Prostate Cancer in Sydney, Australia in comparison with the UK.

Before arriving in Australia, I was expecting the statistics in terms of prevalence and incidence of certain urological malignancies to be very similar to that of the UK, due to the notion that both countries share a similar demographic profile.

In the UK, Prostate Cancer accounts for approximately 25% of all new cancer diagnoses in the male cohort; in Australia, this figure stands at around 30%, evidencing the similarities between the two countries.

The average age of developing prostatic cancer is said to be around 69 years old, in both countries. Additionally, the risk of developing cancer of the prostate is approximately 1 in 5 after the age of 85 – again, something shared between both the UK and Australia, further evidence alluding to the relative similarities between the two countries.

There is a slight variation in the ethnicities of the two locations, with there being a relatively higher oriental-Asian population present in Sydney, but a higher Indo-Asian population in London. Superficially speaking, there didn't seem to be much difference in terms of the incidence of prostatic cancer, although this is certainly something requiring more looking into.

Interestingly, incidence of prostate cancer has increased in the last 35 years, in both Australia and the UK. However this is said to be due to the introduction of PSA testing, providing an early detection in the malignancies.

Explore the approach to prostate cancer and its management in Sydney, Australia in comparison to that of the UK.

Having sat in numerous clinics, as well as observing multiple theatre sessions – I feel I got a fair view of the different approaches to the management of Prostatic Cancer. After diagnosis has been confirmed via biopsy, and staging has been achieved in an imaging format such as MRI/CT scans, as well as Gleason scores and locations, there are multiple options available.

With localised disease, surgical methods are typically preferred in the UK, as they are in Sydney, with many radical prostatectomies occurring. Additionally, radiotherapy is also used often - either external beam or brachytherapy.

For metastatic disease however, hormonal drugs are often used primarily to reduce the progression of the malignancy, primarily by suppressing the hypothalamic drive and thus shrinking the prostate.

Radiotherapy, as mentioned before also plays a role here. Surgical methods are rarely used in metastatic disease unless its for symptomatic benefit.

From experience in sitting in clinics and attending theatres in London, there were numerous trials to introduce HIFU (High Intensity Focused Ultrasound) treatment for the management of prostate cancer, particularly those who weren't suitable for radiotherapy or certain surgeries. However, the argument against its use is to do with much collateral damage occurring during the procedures. Additionally, it is suggested that ultrasounds don't provide the best imaging modalities, particularly in comparing to the MRI's.

The lattermost point is something that is currently a hot-topic within the management of prostate cancer. Currently, there is no screening programme in place, mainly due to nature of the disease being relatively slow growing and the use of a single, or even serial measurement of PSA is dependent on numerous factors, but mostly assessing the risk of the patient. Thus, a recent study undertaken in Brisbane considered using pre-biopsy MRI scans to image the prostate could be seen as an alternative, or even a superior choice to PSA 'screening' to assess the extent of the growth of the prostate and/or any malignancies. This would be because of the more precise imagining of the prostate as opposed to the ultrasonography aspect, which often follows an elevated PSA.

Compare the healthcare systems as a whole in the two countries.

The healthcare system in Australia has its similarities with that of the United Kingdom, but also its differences as well. Here, there is a duel-governed system, in which *Medicare* provides a free health service, much akin to the NHS. This is funded by approximately 9.3% of the Australian GDP ($130b). Within this policy, 100% of in-hospital costs are covered, with most (approximately 75%) General Practice costs are also covered. Specialist care within hospital is also majority covered by Medicare, approximately 85%. The rest is however 'paid out of pocket' at the time, or patients take out a private insurance policy to cover the other costs, with a variety of differing policies available to cover different needs. This is provided ultimately by two sets of funding; state and federal. Various budgets have been agreed on to maintain the upkeep of public hospitals by the state system, whilst the federal healthcare system covers much of the Medicare costs.

The Australian governing bodies currently encourage the uptake of private healthcare, not only for financial reasons, but to reduce the burden of waiting times and clinical care in the state governed hospitals, and subsequently the patients. Not only does this reduce waiting times and give freedom of choice to those who can afford a private care plan, but also allows those not only private care plans to have a reduced waiting time for referral services. It should however be noted that much of outpatient care isn't covered by Medicare; such that when referred to by a GP – patients often still have to pay out of pocket to be seen in an outpatient department for whatever speciality.

In terms of costs, everyone pays into the Medicare plans, which currently stands between 1.5-2.5% of the patient's gross salary per annum, with varying rates depending on the amount you earn. Those who can afford a private care plan are encouraged to do so due to the reasons mentioned above. Interestingly, those who opt out of the care plans but are within financial reach of private healthcare are penalised 1% of their salary on top of Medicare costs. Additionally, those who are of a low income are exempt or pay reduced amounts into the Medicare plans.

In terms of the systems effectiveness, it is interesting to compare with healthcare systems with that of the UK. The NHS, is free at the point of use, but there are additional charges for dental, optical

and prescriptions. Ambulance services are free, however in Australia there is a call-out-fee for Ambulance services. In the UK, only about 7% uptake private healthcare – which allows for quicker specialist care referrals and the additional benefits such as choosing your healthcare provider and reduced waiting times. The budget is similar in the UK to that of Australia, currently standing in approximation of £97b, but this split between primary and secondary care, in which commissioning and provider trusts allocate the money accordingly.

In comparison, the average waiting time for an urgent appointment in the UK currently stands on average of 19 days, whereas its 15 days in Australia. Non-urgent appointments are however similar, with 49 and 47 day wait approximately respectively.

Its debatable to make an outright conclusion on whether one healthcare system is better than any other, but certainly the Australian fashion does have its advantages over the UK, typically with shorter waiting times and more freedom in who you want to see. In my personal opinion this is also advantageous over the healthcare system currently in use in the USA, where there is a lack of cover for those who cannot afford a care plan or those who are chronically ill.

Illustrate the ability to adapt to working in a different country and improve examination and surgical skills where appropriate.

During my time in Concord Repatriation Hospital, Sydney I noticed many similarities in comparison to the hospitals in the UK. Ward work, clinics and theatres were very similar in terms of the generic workings of the place, and thus I found it very easy to adjust to a new working environment.

Due to the lack of clinical experience and exposure in Urology during my medical school career, I was sceptical in how difficult it would perhaps be in settling into a new hospital setting; however I couldn't have been further wrong. Concord Hospital was welcoming and friendly in everyway, and with a working pattern akin to that of the UK, it was extremely easy to feel at home.

With regards to the clinical experience, I feel that I have extremely benefitted from being at Concord. I was entrusted to insert many urethral catheters and also have an attempt in replacing suprapubic catheters, something I haven't been exposed to in the UK. I also had to the luxury to sit in many clinics and join ward rounds, as well as observe multiple theatre sessions, giving rise to the opportunity to see a variety of urological conditions and presentations.