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Elective Report 2014

I undertook an elective within Cardiology at the Royal Melbourne Hospital, Melbourne, Australia. The department I spent most of my time with in the Coronary Care Unit, whereby I was attached to the team working there. I spent time with a number of consultant led teams and I am extremely grateful to Professor Leeanne Grigg, Head of Cardiology to allow me the opportunity to spend my elective at the unit.

1. Describe common cardiovascular conditions in Australia

Cardiovascular disease (CVD) in the leading cause of death within Australia. Each year more than 45,000 deaths are directly attributed to CVD. This equates to one death every 12 minutes. CVD affects one in six Australians and prevents 1.4 million individuals from living a full life due to disability. Moreover, during 2009-10 CVD was the main cause for 500,000 hospitalisation and played a secondary role in a further 800,000. Individuals from lower socioeconomic groups, including Aboriginal and Torres Strait Islanders, as well as those living in remote regions had a higher rate of hospitalisation and death from CVD in Australia.

CVD is a term used to cover all pathologies of the heart and blood vessels. The mains most common types of CVD within Australia, are similar to most other developed nations. These include coronary heart disease, stroke and heart failure/cardiomyopathy. The most common underlying cause of CVD is due to atherosclerosis – the excess deposits of fat and cholesterols within the lumun of blood vessels forming a plaque – which can cause myocardial ischemia or cerebrovascular accident.

There are a number of modifiable risk factors directly attributed to an increased incidence of CVD. These include:

- Hypertension – 32% of adult Australians have hypertension
- Hyperlipidaemia – 33% of adult Australians have hypercholesterolemia (Total Chol > 6.2)
- Smoking – One in six Australians smoke on a daily basis
- Obesity- 63% of all Australians were either overweight or obese.

Australia has similar incidence of cardiovascular disease as in London. Moreover, during my rotation I witnessed a number of patients who experienced all types of Acute Coronary Syndrome, congenital heart disease, cardiomyopathies, heart failure and cerebrovascular accidents.

2. Describe how the healthcare system in Australia functions and how it compares to the NHS

The way healthcare is delivered to patients has marked differences to the UK. Like the UK, healthcare is provided by both government institutions and through the private sectors. Since 1984, Medicare is the publicly funded universal healthcare system in Australia and is funded through taxation. Moreover, alongside Medicare there is a separate system for the delivery of medications – and this is through the Pharmaceutical Benefits Scheme which subsidises a vast range of drugs. What I admire about the system here, as I do about the NHS is that the healthcare is universal – meaning

those who require healthcare treatment will receive all necessary treatment irrespective of their finicial status.

However, there are a number of private healthcare insurance providers – the largest with a 30% market share is Medibank. This is a government owned company – paying dividend and taxation as any other commericial enterprise. However, it was set up to compete against private "for profit" insurance schemes – thus being able to keep insurance premiums at a reasonable level. The Australian government actively welcomes individuals to take up private medical cover by imposing subsidies on insurance premiums of up to 30%. In addition individuals earning an annual taxable income of $88,000 or familes with a taxable income of $176,000 are imposed with a 1% tax if they do not take up some form of private health insurance – the rationale behind this, is that such individuals can afford private health premiums and thus can actively reduce the burden on public hospitals.

The public health system does have its problems, such as prolonged waiting times for appointments and scheduled surgery. However, with regards to the delivery of care, it appeared to be very similar to how the NHS operates. All members of the multi-displinary team delivered excellent love and care to patients and I am grateful to have been involved within the team here.

3. Observe use of common cardiovascular drugs in Australia and the differences in how they are prescribed

On the whole, within cardiology drugs used to reduce the risk factors for cardiovascular events were similar to those prescribed in the UK. Commonly used anti-hypertensive included ACE-Inhibitors, calcium channel blockers, diuretics, ARB's, anti-platelets and anti-thrombolytic. Whilst guidelines are in place and freely available within the intranet, I find doctors are more inclined to use what's best based on past experience. An example of this would be the use of ACE Inhibitors in those over the age of 55, rather than calcium channels blockers. In addition, there is a minor variation in doses, for example Aspirin is commonly prescribed as 100mg, rather than 75mg.

4. To have the opportunity to conduct a range of clinical examinations whenever possible whilst supervised. To improve clinical skills needed as a competent Doctor.

During my elective, I had the opportunity to examine a range of patients, review patient observation and drug charts as well as have an direct input into their care amongst the team. Moreover, I had the opportunity to follow patients under a range of investigations and management strategies, including angiograms, stress tests and PCI's. I also had time to follow patients in ICU, which was extremely helpful more me as I will be undertaking an ICU rotation as a FY1 post. In addition, the elective allowed me to undertake a number of practical skills including, venepunction, administration of fluids, oxygen therapy as well administration of IV antibiotics.