ENDOCRINOLOGY

Elective Report

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Objectives:

1. Diabetes is prevalent throughout the UK and Western World. I will explore if diabetes prevalence is similar in Australia and whether the diabetic population attending St Vincent'sHospital, Sydney is similar to that in East London.
2. In England, the majority of health care is provided by the National Health Service. I will see whether this is similar in Australia, with reference in particular to the management of diabetes.
3. I will explore other areas of endocrinology to increase my knowledge, understanding and enthusiasm for this area of medicine.
4. My personal goal for this period is to become more familiar with the management of diabetes in particular the multi-disciplinary aspects.

I spent my elective under the supervision of Dr Jerry Greenfield in the Diabetes and Endocrinology Centre at St Vincent's Hospital in Darlinghurst, Sydney.

Darlinghurst is a vibrant area of Sydney, often compared to London's Soho, which is particularly known for its active gay and lesbian scene, the red light district and for mingling "seediness with a certain hedonistic style"[1]. Its population is therefore very diverse, further diversified by the affluent, and quieter Eastern Suburbs which are a few streets away, but for whom St Vincent's Hospital is also their "local".

St Vincent's Hospital is located in the middle of Darlinghurst, and is a tertiary referral centre which in particular prides itself on its heart and lung transplantation centre and services for drug and alcohol users – a service which reflects the reputation of the local area. In fact, the first thing I noticed about St Vincent's was the large needle disposal bin located outside the main entrance to the hospital, and were also found in all the public toilets and areas of the hospital. I later discovered was not exclusive to St Vincent's and was the legacy of the Grim Reaper campaign (HIV and AIDS awareness) of 1987.

The patients who I have come into contact with through the endocrinology team have therefore been highly diverse. The nature of type 1 (insulin dependent) diabetes means that there are many young patients who attend the clinic, many who have moved to the area either because of its trendy scene or because of the alternative lifestyle, where diabetes can become complicated further by many social issues such as being homeless, or by lifestyle choices.

As in England, the majority of diabetic patients suffer from type 2 diabetes (non insulin dependent diabetes mellitus), although the patients I have met at St Vincent's have varied hugely from those I have met in East London over the course of my clinical training. In particular I have noticed that there are far fewer patients from the Indian sub-continent in Sydney and instead many more patients are Caucasian or South – East Asian. I am aware that the indigenous population of Australia have a higher prevalence of type 2 diabetes than the general population, I have not met any patients of Aboriginal origin. An interesting subset of patients at St Vincent's Hospital are those who are in receipt of a heart or lung transplant and who have developed complications of their immunosuppressant medication, in particular corticosteroids, whose prolonged use pre-disposes to the development of both non-insulin dependent diabetes mellitus and osteoporosis.

Within the general endocrinology clinics, I have met a similarly diverse group of patients. I found it interesting that the hospital also provides specialist services to patients in the Solomon Islands, who otherwise would not have access to these sorts of healthcare.

Australia, similar to England, has a publicly funded healthcare system (Medicare), but private services are utilised much more than in England, and there appears to be much more overlap between the two aspects of healthcare with consultations often discussing the options available through state funding and also those available privately, and also in terms of patients transferring between the two systems. As there is a large private hospital on the same site and much of the pathology is provided by external companies, transferral of information, in particular test results, between the two hospitals seemed much easier than in the UK.

I have been very privileged during my time in Sydney, that I have seen a huge range of conditions varying from very common diseases such as diabetes and Graves disease, to those which are less common including gigantism and hormone therapy in patients undergoing gender transformations. A number of these patients particularly stand out in terms of showing me the breadth and variation within endocrinology.

Firstly, a male patient who planned a gender transformation and came to clinic to consult about options surrounding hormone therapy, given his extensive family history of breast cancer and other malignancies. I have never sat through a consultation surrounding transgender issues before and had never considered the range of effects attributable to hormones when administered exogenously. In particular I had never considered the effect of hormone therapy on mood, which was particularly relevant to this patient due to his past psychiatric history, and found this aspect of the consultation particularly interesting.

Another patient who sticks in my mind was a young woman who had presented a few years earlier with symptoms of polycystic ovarian syndrome (PCOS), in particular hirsutism and acne. She had tried a number of medical options, which had been unsuccessful, but returned to clinic having lost 20kg and had no symptoms. In medical school we are often taught about the benefit of lifestyle modifications on health, but I have never before seen a patient so dramatically affected by a change in lifestyle that her symptoms had totally disappeared.

The final patient I wanted to mention was a young woman who was newly diagnosed with type 1 diabetes and who had been particularly affected by this news, particularly due to her family history and social setup. New diagnosis of type 1 diabetes, particularly when the patient presents to an emergency department in diabetic ketoacidosis, is managed very differently in the UK (where the patient is likely to be admitted to hospital for a few days in order to stabilise blood glucose levels) compared to St Vincent's, where the patients are stabilised in the emergency department and then are managed in an outpatient setting with daily phone consultations with nurse specialists. However, I had never considered before the impact that such a diagnosis can have on a patient, particularly younger patients, who may have less social and family support due to work arrangements and moving out of home.

Between these three patients, and the others who I have met whilst on this placement, I have learnt a huge amount about not only the breadth of endocrinology as a specialty, but also in terms of holistic care and supporting patients through difficult times.

My personal goal for this period was to learn more about diabetes and its management. A particular highlight for me was to spend a morning with the dietitian based in the diabetes centre. Although I was aware of basic advice given to patients, particularly with type 2 diabetes, it was fantastic to have the opportunity to discuss in much further depth the implications of dietary changes, and then to be able to watch her with a patient, putting those principles into action.

I had never before considered the day-to-day routine involved in insulin controlled diabetes. Now, having spent time in clinics and with the dietitian and diabetes educators, I am much more aware of how much it impacts on lifestyle and therefore the importance of a trusting relationship between the patient and the health professionals.

In summary, this has been a fantastic opportunity to explore both diabetes, and other endocrine conditions further and I am very grateful to all those who have let me observe them in action, and have spent time teaching me in the last few weeks!

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[1] Daly *et al.* The Rough Guide To Australia. 5th Edition