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Renal Association Medical Elective Bursary Report 2019
Hawkes Bay Fallen Soldiers' Memorial Hospital, New Zealand
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I would like to start my report by extending my thanks to the Renal Association for their kind financial support which enabled the successful completion of my placement.

Renal medicine has always been a bit of a mystery to me. Having never had the opportunity to take part in a nephrology placement at medical school, opting to undertake an elective in this field seemed a good idea. Moreover, with finals looming in less than 6 months, it made sense to seize the opportunity to gain a good grasp of a branch of medicine which I found challenging. I chose to travel to New Zealand as I was aware that the health care system is not far removed from the NHS, thus hopefully allowing transferrable skills and learning applicable to the UK. Additionally, the undeniable beauty of New Zealand's landscape may have contributed to my decision!

Hawkes Bay hospital is a small DGH in the North Island of New Zealand, serving a population of 151,179 people, as per the 2013 census[1]. In the renal department, I immersed myself in ward rounds, clinics and in the dialysis unit. In Hawkes Bay, there was no renal ward as such. Rather, renal patients were scattered into a variety of general medical wards, with the team popping from one ward to another, including ICU, AMU and ED. This highlighted to me how differently each patient with a renal disorder can present. From end stage renal failure to the beginnings of vasculitis, when the kidneys stop working, any other bodily system can be affected. This experience has strengthened my theoretical understanding of the important work the renal system does to keep the body in check. When the kidneys fail, the heart can go into overdrive, the lungs can drown, the haematological system struggles to churn out red blood cells, and the neurological system can misfire. Thus, whether a patient presents with blatant haematuria, or arrythmia and confusion, the importance of ensuring the renal system is constantly monitored is now set into my practice.

I also learnt a great deal about diabetes, with over 50% of patients on the dialysis unit having end stage renal failure due to diabetic nephropathy. While I was aware that diabetic nephropathy is a complication of the disease, I had never observed how devastating poor diabetic control can be. Moreover, I now understand more about the burden of dialysis itself which takes away an overwhelming proportion of a patient's freedom. It was also eye opening to witness the mental and physical preparation that goes into getting a patient ready for dialysis. From breaking the bad news that a patient will likely need renal replacement therapy, to the physical formation of an AV fistula, and the education of how to self-dialyse at home, I now feel I have a better appreciation of a patient's journey through the dialysis process. This experience was truly invaluable, and I now feel better equipped to sympathise with similar patients I may encounter in the future.

I was also lucky enough to put into context the pathology of renal diseases I learnt about at clinical school. During my lectures, the pharmacokinetics and dynamics of drugs made up a notable part of the curriculum. It was interesting to witness how such properties of drugs were considered by nephrologists. For example, I learnt that post-transplant, calcineurin inhibitors such as tacrolimus and cyclosporin can lead to hypertension. However, they are vital anti-rejection drugs, thus the importance of balancing the risk-benefit ratio was highlighted; while we don't want the donor kidney to be rejected, we must also ensure that drug induced hypertension does not result in damage to the donor organ. Additionally, my pathology course at medical school highlighted to me the role of histopathology. Yet, it would be disingenuous to claim that I truly immersed myself in this part of the curriculum! However, having now sat in on histopathology conference calls, I now appreciate the value of the renal biopsy and its role in guiding treatment plans. Moreover, it's made me truly thankful to pathologists and their attention to minutiae (as well as their notable eye of faith!)

[1] Archive.stats.govt.nz. (2019). *QuickStats about a place*. [online] Available at: http://archive.stats.govt.nz/Census/2013-census/profile-and-summary-reports/quickstats-about-a-place.aspx?request_value=14018&tabname= [Accessed 29 Aug. 2019].

In addition to learning a lot clinically, the outpatient clinics educated me on the importance of effective communication with patients of different cultural backgrounds. 22% of Hawkes Bay's population is made up of the Maori[1], making Hakwes Bay's indigenous population one of the largest in New Zealand. The socio-economic differences between the Caucasian and Maori population became very apparent, as well as the impact of this disparity on the health outcomes of the Maori population; particularly levels of chronic kidney disease linked to unfortunately high rates of obesity and diabetes. The overall trust and expectations of the health care system was also lower amongst the indigenous population, due to a plethora of reasons, leading to high rates of discordance from medical advice. This was an eye-opening public health experience, and it was fascinating to observe the measures put into the health care system to optimise a culturally sensitive delivery of healthcare. This included a specific Maori health care service that works closely with the Hawkes Bay District Health Board. Their aim is to ensure the recognition of Maori values thus enabling health outcomes that are appropriate, accessible and affordable. For example, clinicians have access to advice on how to approach and consult their Maori patients in an appropriate manner. Moreover, patients and their 'whanau' (the extended family or community of the patient) are also supported to ensure trust and appropriate health care delivery. It was clear both from observing, as well as talking to multiple doctors, that institutional racism is still a pressing issue in New Zealand. Yet, there are indeed efforts being put in place to overturn these biases, in order to improve the health of the Maoris and Pacific Islanders, as well as overall population health. With the UK being one of the most ethnically and culturally diverse countries in the world, it has made me more aware of how my actions may need to be altered depending on the cultural and ethnic background of the patient in question. It's highlighted how important it is that we endeavour to reassure our population that the NHS is a culturally inclusive system, free at the point of delivery, and with the same standard of care carried to each and every one of its patients.

Overall, I had a wonderful month with Hawkes Bay's nephrology team. It was a hugely rewarding elective, opening my eyes to a field of medicine with nuances I had never fully appreciated, nor understood. From ironing out uncertainties in my knowledge about renal topics I learnt in the UK, to learning how to assess renal patients and the importance of sensitive communication, I feel I am better equipped now approaching my final year of study. Renal medicine is truly fascinating, and I've understood it's a dynamic field encompassing a whole host of body systems. I now feel far more confident about nephrology, and this elective has surprised me in that I am now deliberating the idea of a career in renal medicine. Most importantly, I am hugely grateful to the kindness of all the members of the team at Hawkes Bay who welcomed and looked after me during my time in New Zealand. It was a privilege to spend my elective in this beautiful part of New Zealand, and an experience not to be forgotten.