NEPHROLOGY

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May 2011 Elective Report

1. ***Which renal problems are most commonly dealt with in a busy New Jersey teaching hospital? Are there many differences from those seen in the UK?***

Working alongside a dialysis specialist, the overwhelming majority of patients seen every morning on ward rounds were chronic renal failure patients undergoing haemodialysis in a purpose built dialysis facility away from the hospital. All patients seen on morning rounds were already mid-dialysis at the time the rounds commenced. A review of the patient's BUN (urea) and electrolytes would be done alongside the patient, and any concerns with potassium levels would be discussed with the patient. In the hospital setting, we were sent referrals from any department who were concerned with the renal function of a patient. Many of these patients were elderly, post-operative patients with some decline in renal function. However, a large proportion of patients were younger black male patients. The area served by Jersey Shore Medical Center has a large afro-Caribbean population; indeed the majority of residents are black. One of the most prevalent diseases in the local population was hypertension. This was almost exclusively essential hypertension, and was often left uncontrolled, and many of these patients were developing renal failure. Many patients I spoke to had said they suffered hypertension since their twenties or early thirties, and they had left it untreated even once diagnosed, mainly for financial reasons (discussion below). A good proportion of the younger black patients also suffer Type II diabetes mellitus, itself causing microvascular glomerular damage and conferring some retardation of renal function. Many of these patients were not haemodialysis patients, however we offered renal consults to these patients around the hospital when required. There are parallels between the patients in that small pocket of New Jersey and the patients we serve in Whitechapel, an inner city London area with a high concentration of South Asian immigrants. Our local population of mainly Bangladeshi patients in Whitechapel suffer from a cocktail of cardiovascular diseases, such as hypertension, coronary artery disease, hyperlipidaemia and diabetes. As a result, many older patients here have declining renal function. I am not certain of the statistics for the prevalence of renal failure in the UK, and specifically at the Royal London Hospital, but I suspect it is similarly prevalent.

2. ***How is medicine practiced in a private medical system like the USA, and how does this compare to the UK? Which system provides better care for patients?***

The biggest culture shock when practicing medicine in the USA is the importance of financial aspects from both the patients' side and the doctors. Many patients I had discussions with were lamenting the perilous state of their finances, and the burden medical treatment, especially dialysis, was having on them. One gentleman openly admitted to me that he had uncontrolled high blood pressure since he was 30 years old, yet could not afford to pay for his medicines when he was diagnosed, and hence remained untreated for 12 years. The vast majority of patients in the United Kingdom would not stop to think about the financial burdens of treatment on the NHS, especially paying the flat rate for prescriptions. Many of our patients were covered by the Medic-Aid or Medicare system of state medical coverage, which is a basic level free medical insurance for those of very low income and the elderly. The vast majority of these patients found the cover insufficient, as it often didn't cover the medicines they required, and many pre-existing diseases would not be covered. For those patients who had their own private medical insurance, which is paid for by a large premium deducted from wages, medical co-pays (similar to an insurance excess in Britain) were a large financial burden. All patients had to cope with the financial stress of paying for their medicines at the pharmacy. Very few were exempt

from any payment whatsoever. From the aspect of a patient, this was the most difficult concept for me to fathom, being that I have simply never considered medical care to be a reason to consider my finances.

From the aspect of a healthcare provider, medical practice in the USA had many benefits, and some pitfalls. I was surprised to see the amount of hours dedicated to dealing with insurance companies and financial paperwork; an hour per day in the office. Within the hospital setting, though, medicine is practiced with a freedom which I do not believe exists in the UK. Investigations, tests and results are requested and received often immediately. On rounds, almost any test or imaging could be requested without the necessity to qualify its necessity to the radiologists. From within the clinic, we could refer the patient for tests or imaging at the hospital on the same day. In addition to this, I thought the clinic facilities and hospitals in general looked cleaner and more modern than any I have seen in the UK. Much of this stems from the private nature of these establishments, and the pride taken in them looking immaculate. In Jersey shore medical center, the vast majority of patient beds were in private side rooms, with very few inpatient wards having patient bays. I felt it was a more comfortable experience for the patient.

Overall, it is difficult to make a judgement on which system provides better patient care, however it is my opinion that financial strains on the patients in the American system are an added worry for them. I personally think the system is easier for patients in the UK, however the benefits for doctors are greater in the USA.

3. ***Describe the management of common renal diseases and renal failure.***

Our patients were almost exclusively haemodialysis patients suffering long term chronic renal failure. The management of these patients involved reviews of blood results on the dialysis rounds and discussion with the patients on their current potassium levels and fluid balance. In the hospital setting, when on-call with the resident for renal referrals, assessment of the acute patient included review of urea and creatinine levels, examination of the fluid volume status of the patient, blood pressure and oedema, and auscultating the lungs for signs of fluid overload. Bloods requested include CBC and CHEM7 plus BUN, clotting and an arterial gas analysis checking for level of acidosis. EKG and chest X-ray were also immediately requested. Urine output was measured closely and the results of initial investigations reported to the senior resident or fellow.

4. ***Attend overnight on-call with the medical resident assigned to nephrology and comment on how training is different to the UK. Describe how I dealt with the working hours, pressure and time constraints of working on-call, and how this will help me in FY1.***

I attended two separate overnight on-calls with the junior resident responsible for renal calls. The resident had already worked a 10 hour shift before going on 12 hour bleeper call. The standout difference in the USA is the hours the residents work. My resident said she had 24 hours on the job roughly once per week, but was guaranteed at least 12 hours off after a shift of that nature. She explained that they are given special help to deal with fatigue and stress, but that a normal week for her was about 90 hours of work. Luckily, the bleeper call was not very busy on either night and we actually got to rest in the on-call rooms for some time. Time constraints or being too busy didn't seem to pose a problem, therefore. It was simply the length of hours worked. I had also been on rounds and clinic earlier in the day, however I had 4 hours in which to rest and nap before starting bleeper call. By the end of the night I was very tired, but I expect that to be the case in my foundation program as well. However, with the advent of the EWTD, I do not expect to be working 90 hour weeks, and hopefully I will be able to cope with a working week of 60-70 hours. I believe a balance must be struck between rest and working hours so the trainee extracts the most out of the formative years but is allowed recuperation time to prevent fatigue and burnout.