RADIOLOGY

ELECTIVE REPORT

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1. Describe how the process of ordering radiological investigations, particularly those involving high radiation doses, differs from that in the UK. What are the advantages and disadvantages of this?

The major differences in this process stem from the fact that healthcare in the US is, for the most part, funded by the patient via private insurance providers, whereas in the UK, the government takes on this burden. As a consequence, there is a need to conserve resources wherever possible. Therefore, in the UK, radiological investigations that may form part of a routine work up in the US are often only carried out when there is no suitable alternative. In my opinion, the most pertinent example of this is the differences in ordering CT scans for patients. I have often seen junior doctors being reprimanded for ordering CT scans which are felt to be unnecessary. In addition, radiology consultants are often required to personally approve scans if radiographers feel that they may not be required. However, during a teaching session for the residents on my first day in Los Angeles, one of the interventional radiology consultants told them that, in a patient presenting with chest pain, one of the first investigations that should be ordered is a CT scan. This completely contradicts what we are taught in the UK.

The major disadvantage of the American system is the fact that patients are consequently subjected to a large amount of radiation during these investigations, which may often fail to provide any more information. I recall one of my consultants telling me that in the US, over 10,000 new cancers occur annually as a direct result of exposure to radiation from CT scans. In my opinion, this statistic is one that should not be ignored. Additionally, an over reliance on imaging may gradually to a decrease in the clinical and diagnostic abilities of junior doctors, something which could adversely affect patient care.

The major advantage of this system is that it enables diagnoses to be made relatively quickly and avoids unnecessary delays. Additionally, imaging has the potential to reveal incidental findings which may not be causing any symptoms at the time, but which may, in the future, develop into something more serious.

2. How does the provision of healthcare in a private setting differ from healthcare provided under the NHS? What role, if any, do general practitioners play in this regard?

It is common knowledge that the provision of healthcare in countries such as the United States, where healthcare is effectively paid for by the patient, is exactly the opposite of how it is provided in the UK. With the majority of the population not eligible for the government funded Medic-Aid, most Americans are required to purchase their own

health insurance from private companies. Individuals without insurance are effectively denied medical care unless they present as emergencies, in which case they are stabilized and then discharged. Additionally, these insurance companies are only required to fund treatment up to a certain, pre-determined amount (depending on the individual's yearly premium). Costs incurred beyond this have to be paid for by the patient. This is in stark contrast to what happens in the UK, where healthcare is provided by the government free of charge to all residents.

Despite the vast differences in the provision of healthcare between the US and the UK, the role of general practitioners is fairly similar. Patients are often seen first by their GP's who then make appropriate referrals. In terms of radiological investigations however, GP's in the US are more likely to send their patients for more advanced imaging modalities such as CT scans. In the UK, GP's usually recommend simpler imaging, such as radiographs, and refer patients to emergency departments if they feel more advanced investigations are required.

3. How does the quality of radiological investigations/ interventions in the USA compare to what is available in England?

As a rotation in radiology does not form part of the core curriculum at Barts, I have not had a lot of exposure to the subject. It is, therefore, hard to accurately gauge the quality of radiological investigations and interventions that are available in the various hospitals that form part of the trust, and compare these to the investigations and interventions available in the US. However, from what I have seen, I feel that the quality of investigations in both countries is quite similar. I do not recall any investigation available in one country that is not available in the other. I have however, noted with interest the common use of lateral views in plain radiographs of the chest in the US. Lateral imaging of the chest is something that is not widely performed in the UK. I feel that this diminishes the overall quality of the investigation as, at times, these may provide radiologists with information that may prove to be invaluable.

In terms of radiological interventions however, I feel that the quality available in the US is superior to what is available in the UK. From what I have seen, interventional and diagnostic radiology departments in the US are almost independent of each other, enabling interventional radiologists to spend most, if not all their time performing interventions. They are, therefore, more experienced in this field, enabling them to acquire a level of expertise greater than their colleagues in the UK. Consequently, interventions in the US are becoming more and more complex. As a result, a large number of patients who, in the UK, would be under the care of surgeons, are treated by interventional radiologists in the US.

4. How did you cope with the responsibility of having to assess patients on your own? Did you identify any areas where improvements could have been made?

The transition from the more laid-back, relaxed world of medicine at Barts and the London to the faster, highly competitive one in the US was one that I found to be quite difficult. Having never been expected to take on too much responsibility, the task of having to assess patients on my own took some time to get used to. In my opinion, my first few histories fell short of the required standard, and my questioning was extremely disorganized. However, as I settled in, I was able to adopt a more systematic approach to history taking, enabling me to enhance my level of performance in this area. Similarly, I initially also found it difficult to effectively summarize my findings and present the relevant facts to the busy attending physicians who did not have time to listen to detailed presentations similar to the ones expected of students in the UK. However, as I got used to this, I feel that I was able to make the required adjustments according to what the attending wanted to hear. As I will face a similar situation once I commence my Foundation Year 1 training in August, I feel that this experience will stand me in good stead.

In my opinion, my experience has taught me the importance of adopting a more systematic and organized approach to clinical practice. This will be especially relevant once I commence my Foundation Year training at Queens Hopspital in Romford, one of the busiest hospitals in the London deanery. I have also learnt the importance of self confidence and believing in one's own abilities. Most importantly, I feel that in terms of work ethic and willingness to take on responsibility, my performance during my elective was what would be expected of a final year medical student. However, having passed my final examinations, I am in effect, a doctor and this is one area where I will need to improve.