

Elective objectives
St Luke's hospital – New York
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May 2011

What is the pattern of cardiovascular disease in New York?

Based on my experience at St Luke's cardiology department, the pattern of cardiovascular disease in New York is similar to the UK with coronary artery disease being responsible for a large percentage of the daily workload; this is likely to be due to the similarities found in diet, as well as other lifestyles and environmental factors. Patients present either in the acute setting with an acute coronary syndrome picture, or through outpatient referral with chronic ischaemia requiring cardiac catheterisation and subsequent intervention. As St Luke's hospital is a tertiary cardiac center, a significant proportion of patients also present with conduction abnormalities requiring either medical therapy or electrophysiology intervention through cardiac ablation, as well as valvular heart disease requiring surgical or percutaneous intervention. A smaller proportion of patients present to the cardiac care unit with end stage cardiac failure, and in these cases, management is more focused on palliation of symptoms.

Describe the pattern of health provision in the USA, as compared to the UK.

Health provision in the USA is mainly split between non-profit hospitals, privately owned for profit hospitals and government hospitals. Treatments of emergency conditions are free in the US, whilst non-emergency treatment costs are generally higher than those found in the UK. Payment of non-emergency medical treatments is generally covered by medical insurance. The patients' employer frequently provides medical insurances, which may partially or wholly cover medical costs. Health insurance is also provided for all people over the age of 65 or for those with disabilities by a program called Medicare, and for families with low income through a means-tested program called Medicaid. Due to the presence of different eligibility criteria amongst the social insurance programs, and the presence of differences between what is covered between even private health insurance schemes, the healthcare provision system is certainly more complicated than the NHS system. The difference in coverage of different health insurances – e.g. the coverage of cheaper but not expensive and more effective drugs can mean that there is a significant difference between the quality of care provided for those who can and cannot afford treatment. It was estimated that almost 16% of Americans do not have insurance, and charity hospitals where free treatment is provided for all patients are indeed available, their frequency is relatively sparse and frequently over burdened by the presence of patients visiting the secondary institution for what would be deemed primary care work in the UK (e.g. simple respiratory tract infections and chronic pains).

Develop knowledge on the management of cardiovascular disease and observe invasive investigation as well as treatment procedures.

This elective has allowed me to further my knowledge on the investigation and management of cardiovascular disease. I have been able to practice and greatly improve my ability to interpret 12 lead ECGs, far beyond the level of UK medical students – I have no doubt that this necessary skill will prove exceedingly useful during my foundation training years. Furthermore I have been able to observe and learn to interpret cardiac angiograms, trans-thoracic and trans-oesophageal echocardiograms for the investigation of cardiac perfusion, cardiac function, and assess for the presence of valvular disease.

Seeing a variety of cardiac condition on the ward and having the opportunity to examine these patients have reinforced my ability to elicit cardiovascular signs, in particular, my ability to identify diastolic murmurs. This elective visit has also highlighted several pertinent differences between the management of cardiovascular conditions in the USA as compared to the UK. In addition to numerous differences found amongst protocols/guidelines that often recommend the use of different medications, the most significant difference is the use of the hypothermia protocol for post cardiac arrest patients. The hypothermia protocol aims to minimize neurological impairment following cardiac arrest through active cooling of the patient. This form of intervention is currently not adopted in the UK and represents a potential area of improvement.

Explore working in the USA as a doctor, and to improve one's portfolio.

This elective has allowed me to gain better understanding of the American medical training system, which allows doctors to specialize much earlier than in the UK. Although this may mean that doctors are less capable in the management of general medical conditions, it does mean that doctors are able spend more time training in their specialty of choice, and therefore reaching the peak of their career earlier.

I have found my experience at St Luke's cardiology department exceedingly enjoyable, not only because of the heavy emphasis on teaching students and junior doctors (in the form of teaching ward rounds, morning conferences, and grand rounds) but also because of the very welcoming atmosphere created by both senior and junior members of the cardiology team. In addition, I have been granted the opportunity to write up a case report documenting a rare case of myocardial infarction secondary to coronary atherosclerosis in a young patient with no identifiable risk factors, as well as two large-scale cardiac studies, one assessing the use of a detailed management algorithm in the management of acute heart failure, and the other reporting an increased risk of stroke in female patients with atrial fibrillation. These potential publication write-ups not only enhances my research writing ability, but will also greatly aid my future application towards a cardiology training post.