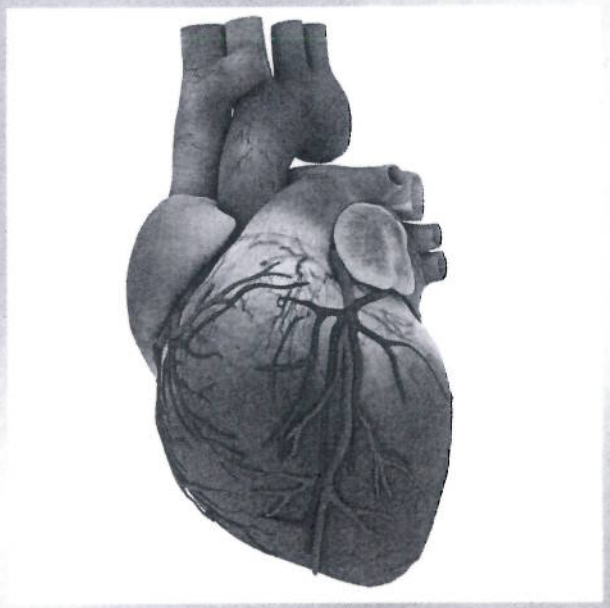
F. HUSSAIN

YEAR 5 CARDIOLOGY ELECTIVE REPORT

WEST VA LA MEDICAL CENTER



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04/22/14

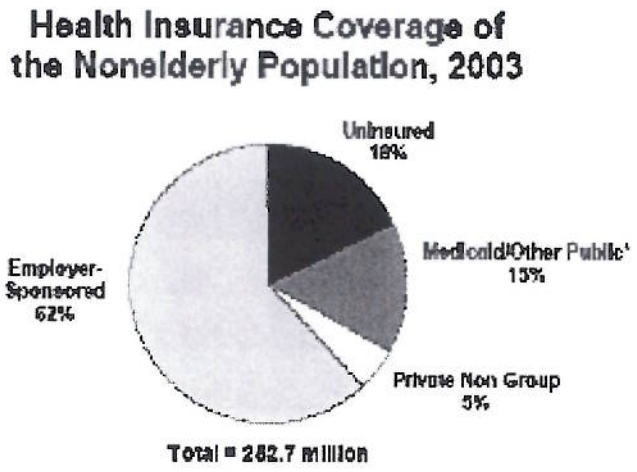
1) ***What are the prevalent cardiovascular conditions seen at West VA LA Medical Center? How do they differ from those seen in the UK?***

Patients at the VA present with a range of cardiovascular conditions. The most common conditions that I have observed are acute decompensated heart failure, ischaemic heart disease, arrhythmias, acute coronary syndromes, myocardial infarction and symptoms secondary to coronary artery disease, valvular dysfunction and endocarditis. The majority of patients at the VA are elderly veterans who have served the US army at some point in their career. With a largely elderly population, the prevalence of significant co-morbidities such as diabetes, hypertension, CKD, hyperlipidaemia is high, predisposing to cardiovascular events. I was able to gain a deeper understanding of these conditions by receiving excellent teaching from the Attending, Fellow, Residents/Interns and was also taught how to interpret ECGs and an echocardiogram report. The management of each patient's case was discussed thoroughly on ward rounds as well as hand over meetings and this gave me the added opportunity to fully comprehend each patient's management.

The cardiovascular conditions seen at the VA are also prevalent in the United Kingdom and are commonly seen. This is due to similar patterns of living and lifestyle, in addition to both countries being more economically developed. The most common cause of death in the UK is secondary to coronary heart disease and results in 82,000 deaths each year. The leading cause of death in the United States is also secondary to heart disease resulting in 28.5% of deaths. However, both countries boast a culturally diverse population with ethnic minorities accounting for 8% of the population in the UK. This has to be taken into account when considering the prevalence of different cardiovascular conditions in a certain area. For example, South Asian men are 50% more likely to have IHD than Caucasian men.

2) ***Describe the pattern of private health care provision in the United States, specifically Los Angeles. How does this compare to a nationalized health care system of the UK?***

Like all other countries, there are both private and public insurers in the U.S healthcare system, with the private element dominating over the public element. A study indicated, that 62% of Americans received private employer sponsored insurance, whereas 5% purchased insurance on the individual market. 15% of the population was enrolled in a public insurance programme "Medicaid", and "Medicare" covered elderly individuals aged 65 and over. 18% of Americans were uninsured, hindering their healthcare.



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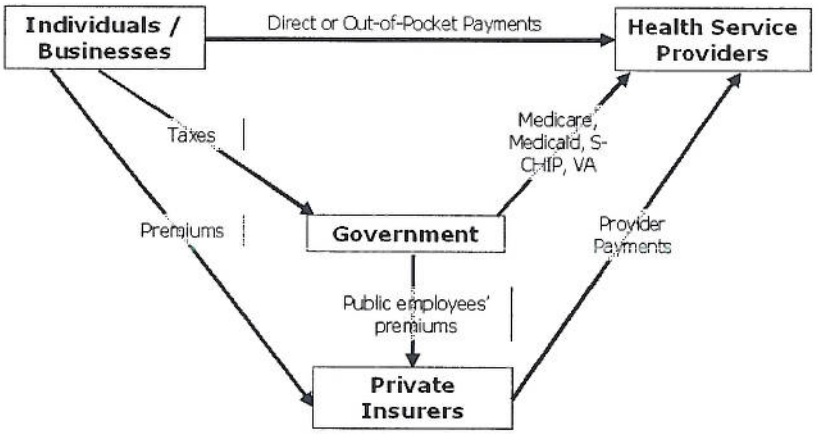
04/22/14

Public health insurance such as "Medicare" is a federal run program financed by income taxes. However, it does not provide full coverage for services such as dental, hearing, vision and skilled nursing facilities. Similarly "Medicaid" is a program for low income and disabled individuals and is financed by the states and government through taxes. However, individuals may have difficulty in finding providers that accept "Medicaid" due to its low re-imbursement rate. The VA is also a government-administered program for veterans of the military. Healthcare is delivered in government owned VA hospitals and clinics and is funded by taxpayer dollars. It is free of charge or reasonably affordable.

Private health insurance is either "Employer sponsored" or from the "Individual market". Employer sponsored insurance is part of the benefits package for employees and varies with each insurance plan. The individual market covers those who are self-employed or retired.

Financing of the US health care system is done by 2 entities – Private Insurance companies and the Government. This is outlined in the figure below:



Unlike the US, healthcare in England is largely provided by the National Health Service (NHS), which is one of the largest and oldest publicly funded health care system. It is funded through taxes and provides healthcare services free of cost to every legal resident in the United Kingdom. The NHS provides the majority of healthcare in England including primary care, inpatient care, long term care, ophthalmology and dentistry services. England does have a private sector of health care, offering a lesser set of treatments than those available on the NHS, with the General Practitioner remaining the point of first contact for referrals.

3) Describe a case you managed during your elective. How does the management differ from the UK? Discuss the role of different team members involved.

I managed the case of Patient H, a 90-year-old male who presented with central chest pain 10/10 radiating to the left hand side of his body with associated shortness of breath. There was no nausea, vomiting, diaphoresis or weakness and the pain was described as heavy in nature. Patient H had a background of coronary artery disease, severe aortic stenosis, hypertension, hyperlipidemia and diabetes. With regards to his significant coronary risk factors and mild elevation of Troponins, the likely cause of chest pain was attributed to ACS/NSTEMI. This diagnosis was supported by ECG changes showing new inferior T wave inversions indicating ischaemia. I was able to take a thorough history, examination and formulate a management plan.

Initially the patient was given Nitroglycerin and 162mg of Aspirin in the ambulance causing some relief of pain. As the patient was DNR and not suitable for surgery due to significant co-morbidities, optimum medical management was the best option and a cardiac catheterization was not recommended. He was started on a IV Heparin drip for 48hrs with Telemetry monitoring. His regular medications for CAD; Aspirin, Atorvastatin 80mg, Plavix 75mg, MTP 25mg BD, Amlodipine 5mg OD were continued. An ACE-I and Nitrates were both contraindicated due to CKD and severe Aortic Stenosis.

If Patient H had presented in the UK, there would be no difference in management as all protocols adopted for this patient can be supported by the NICE Guidelines in the UK. Likewise, in the UK the gold standard for assessing cardiovascular symptoms are through coronary angiography. This management is exactly the same in the US as I have observed that the majority of patients presenting to PCU in America are sent straight for cardiac catheterization.

Similar to England, a multi-disciplinary approach is taken to cover all aspects of patient care and a variety of health professionals are involved ranging from nurses, physicians, social worker, occupational therapist to the rehabilitation team, all working together to treat the patient holistically.

4) ***Reflect on specializing in Internal medicine in the future.***

This placement has given me insight on how the Internal Medicine Residency programme is run in the United States and the opportunity to discuss with Residents/Interns how they rotate. The Internal Medicine programme spans over 3 years and covers a range of specialties ranging from cardiology, endocrinology to oncology with a mix of clinics and inpatient care. The rotations last between 2-4 weeks with on calls every 2-3 days, where as in England the rotations last between 4-6months. During the programme, a resident also has the added opportunity to carry out research in a 4 week block in their area of interest. I am very keen on pursuing General Medicine as a career and being exposed to this environment has given me a greater understanding on what it entails. Furthermore, doing a cardiology placement has made me more confident in interpreting ECGs, CXRs and the management of common cardiovascular conditions, preparing me for FY1. I am looking forward to starting foundation training in August.

Total Word Count: 1164

REFERENCES

http://www.cdc.gov/nchs/data/hus/hus10.pdf

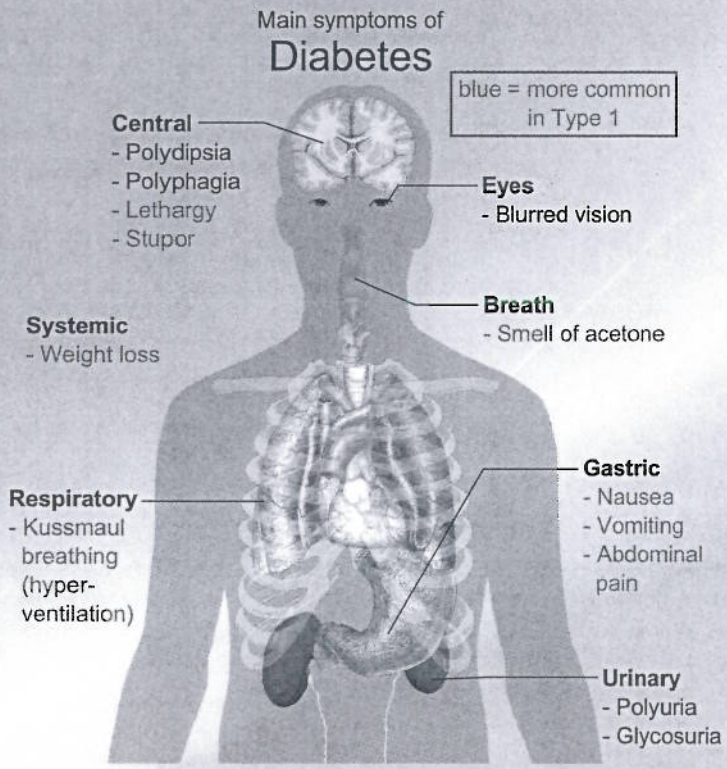
http://www.amsa.org/AMSA/Libraries/Committee_Docs/HealthCareSystemOverview.sflb.ashx

http://www.nhs.uk/Conditions/Coronary-heart-disease/Pages/Introduction.aspx

http://www.patient.co.uk/doctor/Diseases-and-Different-Ethnic-Groups.htm

YEAR 5 ENDOCRINOLOGY ELECTIVE REPORT

UCLA HARBOR MEDICAL CENTER



FIZZA HUSSAIN

05/05/14 – 05/31/14

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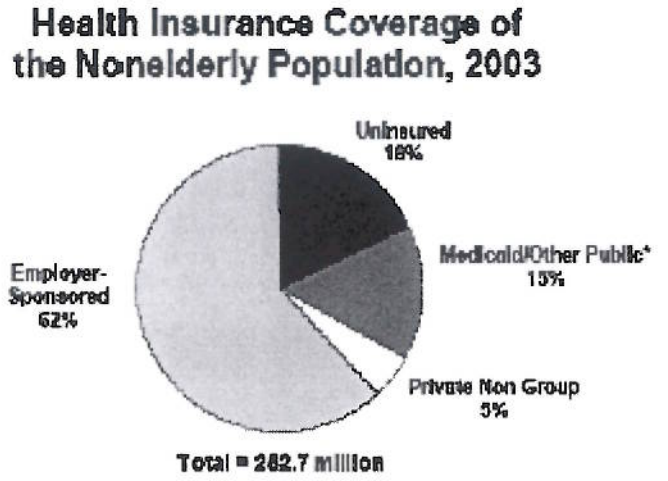
1) ***What are the prevalent endocrinological conditions seen at UCLA Harbor? How do they differ from those seen in the UK?***

Diabetes, the most prevalent endocrine disorder accounts for most cases seen at UCLA Harbor. In the US 25.8 million children and adults have diagnosed diabetes mellitus, accounting for 8.3% of the population. In the UK, an average of 4.6% of the population have diabetes. During my Inpatient endocrine service, an estimate of 80% of patients were diabetes consults with the remaining 20% having pituitary disorders, thyroid cancer/dysfunction, diabetes insipidus and cushings disease.

The endocrinological conditions seen at UCLA Harbor are also prevalent in the United Kingdom and are commonly seen. This is due to similar patterns of living and lifestyle, in addition to both countries being more economically developed. However, both countries boast a culturally diverse population with ethnic minorities accounting for 8% of the population in the UK. This has to be taken into account when considering the prevalence of different endocrinological conditions in a certain area. For example, Asians are twice as likely to develop diabetes as compared to the general population.

2) ***Describe the pattern of private health care provision in the United States, specifically Los Angeles. How does this compare to a nationalized health care system of the UK?***

Like all other countries, there are both private and public insurers in the U.S healthcare system, with the private element dominating over the public element. A study indicated, that 62% of Americans received private employer sponsored insurance, whereas 5% purchased insurance on the individual market. 15% of the population was enrolled in a public insurance programme "Medicaid", and "Medicare" covered elderly individuals aged 65 and over. 18% of Americans were uninsured, hindering their healthcare.



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individuals may have difficulty in finding providers that accept "Medicaid" due to its low re-imbursement rate. The VA is also a government-administered program for veterans of the military. Healthcare is delivered in government owned VA hospitals and clinics and is funded by taxpayer dollars. It is free of charge or reasonably affordable.

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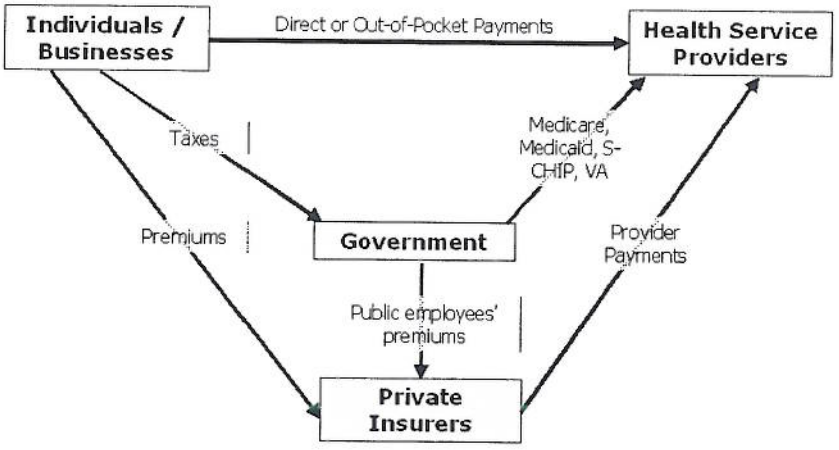

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3) ***Describe a case you managed during your elective. How does the management differ from the UK? Discuss the role of different team members involved.***

I managed the case of Patient X, a 46 year old female, that presented to the endocrinology clinic with thyroid dysfunction. She was diagnosed with Hyperthyroidism 8 months previously after presenting to her Primary care physician with tremors, weight loss and palpitations. She was initially started on Methimazole 5mg BID, which was later up titrated to Methimazole 10mg BID, with the addition of Propranolol 20mg for her tremors. I saw her in the endocrinology clinic as a follow up. She had a Radioactive Iodine uptake scan, which was carried out in December 2013, indicating presence of Graves Disease but no nodule. At present she was currently asymptomatic. Her Thyroid Function Tests and Basic Metabolic Panel were all in the normal range and vitals were stable. Clinical examination was

unremarkable with no evidence of thyromegaly, bruits, pre-tibial myxedema, thyroid acropachy or Graves' opthalmopathy.

Patient X had no significant past medical history and family history was non-contributory with no evidence of other auto-immune disorders. She had no known drug allergies and was not taking any additional medications other than for her hyperthyroidism. Patient X denied smoking, alcohol intake and use of recreational drugs. Her review of systems was otherwise unremarkable.

With regards to her management, we decided to refer her for radioiodine treatment as this will provide a definitive treatment for her hyperthyroidism. One must take precaution in Graves' disease as radioiodine treatment may be followed by the appearance or worsening of thyroid eye disease. Early treatment with thyroxine will reduce the risk of thyroid eye disease.

If Patient X had presented in the UK, her management would be very similar. The only difference would be in her thyroid medications. In the UK, according to NICE guidelines the first line treatment for Hyperthyroidism is Carbimazole followed by Propylthiouracil as second line treatment. Whereas in the US, the first line agent is Methimazole.

Similar to England, a multi-disciplinary approach is taken to cover all aspects of patient care and a variety of health professionals are involved ranging from nurses, physicians, clinic coordinators and nurse specialists, all working together to treat the patient holistically.

4) ***Reflect on specializing in endocrinology/general medicine in the future. Gain a broader understanding of different endocrinological conditions and strengthen my knowledge.***

This placement has given me insight on how the Endocrinology Fellowship and Internal Medicine Residency programme is run in the United States, and has given me the opportunity to discuss with Residents/Interns how they rotate. The Internal Medicine programme spans over 3 years and covers a range of specialties ranging from cardiology, endocrinology to oncology with a mix of clinics and inpatient care. The rotations last between 2-4 weeks with on calls most weekends or every 3-4 days depending on the specialty, where as in England the rotations last between 4-6months. During the programme, a resident also has the added opportunity to carry out research in a 4 week block in their area of interest. I am very keen on pursuing General Medicine as a career and being exposed to this environment has given me a greater understanding on what it entails. Furthermore, carrying out an endocrinology placement has made me more confident in implementing different insulin regimens and understanding the management of different endocrinological disorders such as Acromegaly, Diabetes Insipidus and Thyroid dysfunction. In addition, I feel more comfortable in managing diabetic cases and obtaining the relevant information pertinent to monitoring. This will undoubtedly be an asset once I begin FY1 in August.

Total Word Count: 1203

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REFERENCES

1) *http://www.cdc.gov/nchs/data/hus/hus10.pdf*

2) http://www.diabetes.org/diabetes-basics/statistics/

3) http://www.diabetes.org.uk/prevalence-2012

4) http://www.joslin.org/info/Asian_Americans_and_Diabetes.html