ACCIDENT + EMERGENCY

SSC 5c (Elective): Northwick Park Hospital, London, UK

Accident and Emergency: 25/04/11- 27/05/11 (5 weeks).

Elective Report

The purpose of this elective placement was to gain an insight and experience into the workings of an Accident and Emergency Department (A&E) in London. As a final year medical student, 'post-finals', I was also in the position to be able to use this time to extensively practice and perfect essential skills needed as a house officer such as history taking, examination, cannulation and blood taking and was treated as a valued team member which made the experience even more enjoyable.

As part of the elective, there were some objectives that needed to be addressed. The first asks the prevalent emergency conditions in London and relate this with the rest of the UK.

Current common conditions to the A&E department include chest pain. This includes cardiac and non-cardiac complaints; frequently myocardial infarction (MI) and musculoskeletal pain. Cardiovascular disease (CVD) and hence MI and Stroke still count as Britain's biggest killer.[1] However, with the higher numbers of immigrant populations such as South Asians and Afro-Caribbeans within London and with that their higher prevalence of CVD risk factors; type 2 diabetes, hypertension, hyperlipidaemia etc... London has one of the higher rates of MI compared to the rest of England and Wales. As there is a higher density of South Asian population in East London, this has the highest death rate from MI across the capital.[2]

Within London there are eight Hyper Acute Stroke Units to accommodate and serve the stroke patients in the various areas around London. Northwick Park Hospital holds one of these units which offers round the clock thrombolysis to those that would benefit from it.[3]

Other common conditions seen in the emergency setting are respiratory problems; 'shortness of breath'. These are usually caused by conditions such as Asthma, Bronchiolitis in children, COPD, heart failure, trauma and acute respiratory infections.[4] The prevalence of these varies across the country depending on factors such as age, lifestyle, occupation/environment and other co-morbidities such as elderly and stroke.

The elderly form a large proportion of admissions due to a variety of reasons most commonly 'off legs' with confusion or falls, also UTI, stroke and cardiovascular issues including arrhythmias, MI and DVT.

Minor injuries such as abrasions and sprains and also fractures seen across a variety of age groups are also widespread. Trauma is the leading cause of death among people under the age of 40. Northwick Park Hospital is one of several trauma units in London equipped to deal with minor trauma and single system traumas. This unit is linked to St Mary's Hospital, Paddington; one of four trauma centres in London which deals with major, complex and multi-system injuries. Road traffic accidents

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account for the majority of trauma cases and London has the highest death rate compared to the rest of the UK.[5]

Emergency services in the UK are delivered by NHS run hospitals that have an A&E department and include pre-hospital services delivered by London Ambulance Services (LAS), British Association of Immediate Care Schemes (BASICS) and Helicopter Emergency Medical Service (HEMS). Some smaller hospitals have a minor injuries unit capable of dealing with simpler minor cases.

In all situations, the public are able to call the emergency services to come to them by dialling 999 or 112 (European). In the USA, their emergency services number is 911. At the call centre, advice and the appropriate team are sent to those in need. Serious cases such as cardiac arrest, stroke and trauma are 'Blue-lighted' into hospital whereby a call is made to the nearest hospital to alert staff in order for the team to fully prepare themselves for their arrival.

Other non-immediate life threatening cases brought in by ambulance are then triaged on entry after the LAS have delivered their handover to ensure the patient is treated in the most appropriate area either 'majors', 'minors' or 'resus'.

Most other patients usually find their own way to hospital where they are first greeted by reception staff who take their details and make a note of their initial compliant and are then prioritised depending on seriousness. Patients then wait until they are seen by a nurse who triages the patient and decides where best this patient would benefit from treatment. Children have their own separate A&E department. Patients are then usually seen, treated and discharged or admitted within 4 hours or for those patients who are requiring further tests and observation are placed in the observation area.

Other countries such as the USA do not operate a free healthcare system and emergency patients though are treated in the life-threatening-emergency situation are required to have some form of health insurance to cover the costs. Those people without insurance are taken to community hospitals that are charity or government funded in order to receive free basic care or at a reduced cost.

After spending a number of weeks within the A&E department, I have been able to witness and assist in the management of a variety of acute medical conditions such as MI, stroke, LOC, acute asthma, meningococcal encephalitis and bowel obstruction. Each case although managed differently according to the current state and past history of the patient and the end expected outcome, all followed the same initial approach of 'ABC' and DE and checking glucose in a systematic team approach to ensure efficiency. Depending on the state of the patient a history was taking, the level of detail tailored to the appropriateness and stability of the patient and again examination focused on the system in need. Investigations and tests carried out were again tailored to the differential diagnosis, however basic investigations all acute patients received included FBC, U&E, ECG, CXR. Venous glucose, clotting, troponin levels and more specific tests such as D-dimer, ABG's etc.. were then carried out only when necessary. The respiration and haemodynamic

state of the patient are also dealt with according to oxygen saturations and BP by delivering oxygen and fluids.

Overall, this placement has been very enjoyable. My previous experience in A&E was limited and to have had the opportunity to spend 5 weeks in a busy London A&E department was very valuable. Being treated as part of the team and given the respect and responsibilities of a 'post-finals' medical student, at times being referred to as the 'house officer' made the experience more rewarding. It has greatly enhanced my confidence in dealing with unknown situations and the variety of patients and their challenges especially with communication. This has slightly differed from the medical school experience I have had of dealing with patients, as generally unless our firm was 'on take'/on call, patients were in the majority of cases 'selected' for us to clerk in order to learn about their medical conditions and also if the patient was cooperative and not too difficult to deal with. During this placement I have not been forewarned about any of the patients and have seen them first hand having the opportunity to deal with the many challenges that this may bring.

Having had the chance to extensively practice procedures has also been very valuable and will certainly leave me sound as a house officer. I feel needing to randomly use my different examination skills on a daily basis have made me more efficient in examining patients. There were also numerous members of staff who were very happy and enthusiastic to teach and discuss cases and test results which enhanced my learning. I highly recommend this elective placement to any future medical student pre- or post-finals that look to gain a broad and challenging experience to use and look back on in the future.

Word Count: 1,258

References

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4. North West Public Health Website:
http://www.nwph.net/nwpho/inequalities/health_wealth_ch11_(2).pdf (Accessed 22/05/11)

5. Office for National Statistics Website:
http://www.statistics.gov.uk/STATBASE/ssdataset.asp?vlnk=7815 (Accessed 22/05/11).